CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 15 MARCH 2021

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

Attempt all ten (10) multiple choice questions

QUESTION ONE

There are 10 multiple choice questions in this section. Attempt all of them by selecting your best answer from the options given.

1.1 IAS 2 permit costs other than those for raw materials to be included in the value of finished goods inventories. Which one(s) of the following must be excluded?

1. Depreciation of factory plant
1 Delivery costs of sales to customers
2 Delivery costs of purchases from suppliers
3 Wages of Accounts clerks

A. 2 and 4
B. 2 and 3
C. 1 and 3
D. 1 and 4

(2 marks)

1.2 Which of the following journal entries would be correct in line with the way they have been described (according to the narration)

	DEBIT	CREDIT
1.		
Sales		3,360
Sales tax		640
Trade payables	4,000	
Purchases of raw materials on credit.		
2. Cash	100,000	
Share capital		80,000
Share premium		20,000
Issue of K1.00 80,000 shares at K1.25.		
3. Suspense	45,000	
Motor repairs		90,000
Motor vehicles	45,000	
Correction of revenue expense wrongly capitalised.		

A. 1 only
B. 2 and 3
C. 2 only
D. 1 and 3

(2 marks)

1.3 The following totals were extracted from the ledger of Miles Mulenga and relate to the month of January 2020, the first month of trading.

	K
Discount Received	4,250
Returns inwards	3,900
Purchases for the year	45,940
Cheques to suppliers	35,845
Cheques from customers	55,905
Sales for the year (all on credit)	78,425
Returns outwards	2,514
Irrecoverable Debts	845

What is the balance on the receivables control account at the end of January 2020?

A. K 25,226
B. K 15,756
C. K 19,465
D. K 17,775

(2 marks)

1.4 The following information was extracted from Bbalo's business in respect of the year to 31 December 2019.

	K
Purchases	25,740
Opening inventory	6,200
Drawings of goods for personal use	900
Closing inventory	4,220

What is the sales revenue for the year, given that the proportion of profit in sales for Bbalo is 40%?

A. K 37,548
B. K 17,880
C. K 44,700
D. K 10,728

(2 marks)

1.5 IAS 1 presentation of Financial Statements prescribes the format to be followed by Limited Liability companies. Which of the following must be disclosed on the face of the Statement of Changes in Equity.

A. Ordinary dividend
B. Profit before interest and tax
C. Finance costs
D. Interest expense

(2 marks)

1.6 Identify which sets of three (3) account balances would appear on the same side of the trial balance.

1 Capital, Accounts Payables and Sundry expenses
2 Distribution expenses, purchases and prepayments of expenses
3 Cost of sales, Non-current assets and import duty on purchases
4 Drawings, Discount Received and Trade receivables

A. 1 and 3
B. 2 and 4
C. 2 and 3
D. 3 and 4

(2 marks)

1.7 Which of the following are not acceptable accounting treatment for adoption as accounting policies by a company?

1 Inventory should be valued at the higher of cost and net realisable value.
2 Non current assets must be depreciated over ten (10) years using the straight line method.
3 Allowances for receivables should be created and reported as an account payable.

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

(2 marks)

1.8 Which one(s) of the following are the correct effect of the rights issue made by a company.

1. Increasing liabilities
2. reducing working capital
3. Increasing non current assets
4. Reducing share premium

A. None
B. 2 and 4
C. 1 and 3
D. 3 and 4

(2 marks)

1.9 Which one of the following will be reported as current liabilities in the Statement of Financial position?

1. Estimate of income tax on the profit for the year
2. A revaluation surplus
3. A loan due for repayment within the next 12 months
4. Share premium on issue of preference shares

A. 1 and 2
B. 2 and 3
C. 1 and 3
D. 2 and 4

(2 marks)

1.10 Which of the following is not a valid reason for the cash book and bank statement failing to agree?

A. Timing differences
B. Bank charges
C. Error
D. Cash receipts posted to payables rather than receivables

(2 marks)

[Total: 20 Marks]

SECTION B

This question is compulsory and must be attempted plus any three (3) from the remaining four (4) questions.

<u>QUESTION TWO</u> – (Compulsory)

Milanzi Plc is a listed company that prepares financial statements in line with International Financial Reporting Standards (IFRS). The following is a Trial Balance for the year ended 31 December 2019.

	K	K
Purchases	60,000	
Sales		154,000
Ordinary shares of K2.00 each		20,000
Retained earnings		27,000
Income tax		3,000
Dividend paid	3,000	
Trade Receivables		13,000
Trade Payables		7,000
Buildings–cost	80,000	
Plant and Machinery-cost	50,000	
Accumulated depreciation -Buildings		10,000
Accumulated depreciation -Plant		25,000
Inventory at start	12,000	
Distribution costs	4,000	
Administration expenses	6,000	
Bank	28,000	
6% Loan Note		10,000
	257,000	257,000

Additional information:

1. Inventory is valued at K15,280. This includes an item that cost K845 but can only be sold for K500.
2. Milanzi Plc made a rights issue of shares of 8,000 ordinary shares for K5.00. The issue has been fully taken up. This transaction was completed just before the year end. No entries have been made for this transaction.
3. Depreciation is charged on non current assets as follows: Buildings 5% on cost (to admin expenses), Plant and Machinery 20% on reduced balance (to cost of sales). There were no acquisitions or disposals of non current assets in the year.
4. The loan was aquired on 31 March 2019. Interest on loan should be accrued.
5. The estimate of income tax on current year's profits is K8,000. The balance on the income tax represents an over-provision of tax in respect of 2018 profits.

Required:

Prepare:

(1) A Statement of Profit or Loss for the year ended 31 December 2019. (8 marks)

(2) A Statement of Changes in Equity for the year ended 31 December 2019. (3 marks)

(3) A Statement of Financial Position as at 31 December 2019. (9 marks)

[Total: 20 Marks]

QUESTION THREE

You are a trainee Assistant Accountant of ZamCargo Limited and your supervisor has requested you to prepare the statement of cash flows. The summarised Statement of Financial Position as at 31 December:

	Notes	2019 K'000	2018 K'000
Non-Current Assets			
Property, Plant and Equipment	(i)	17,000	18,000
Current Assets			
Inventory		15,400	12,000
Trade Receivables		18,500	22,400
Cash and cash equivalent		8,500	5,000
Total Assets		**59,400**	**57,400**
Equity and liabilities			
Equity			
Share Capital –K1 ordinary shares	(iv)	20,000	17,500
Share premium	(iv)	5, 000	2,500
Revaluation	(v)	1,000	0
Retained Earnings	(vii)	20,000	5,600
		46,000	25,600
Current Liabilities			
Trade Payables		900	12,300
Other payables and accruals		2,000	2,500
Taxation	(ii)	500	2,000
Short term loan	(iii)	10,000	15,000
Total Equity and Liabilities		**59,400**	**57,400**

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

	2019 K'000	2018 K'000
Sales	184,000	92,500
Cost of Sales	(111,000)	(55,500)
Gross Profit	73,000	37,000
Administrative Expenses	(51,100)	(26,000)
Operating profit	21,900	11,000
Other Income	2,000	0
Profit before tax	23,900	11,000
Taxation	(8,500)	(5,432)
Profit after Tax	15,400	5,568
Other comprehensive income		
Revaluation gain	1,000	0
Total comprehensive income	**16, 400**	**5,568**

Notes to the accounts:

i) Property, Plant and Equipment

Schedule:

Cost:	**K000**
Opening balance	45,000
Additions during the year	10,000
Revaluation gain	1,000
Disposal	(5,000)
Closing balance	51,000
Accumulated Depreciation:	
Opening balance	27,000
Charge for the year	10,000
Disposal	(3,000)
Closing balance	34,000
Carrying Value	**17,000**

ii) Taxation:	**K000**
Opening balance	2,000
Charge for the year	8,500
Payments during the year	(10,000)
Closing balance	**500**

iii) Short Term Loan:

	K000
Opening balance	15,000
Interest charged	1,500
Repayment	(6,500)
Closing balance	
	10,000

iv) During the year ZamCargo made a bonus issue of 1 for 2 shares and the issue was funded from the share premium, followed by a rights issue.

v) ZamCargo uses revaluation model as allowed by IAS 16 Property, Plant and equipment. The independent specialists in land valuation based in Mufulira, revalued land upward by K1 million.

vi) Ordinary dividends paid for the year were debited to retained earnings.

Required:

(a) Prepare a statement of cash flow using the indirect method, for the year ending 31 December 2019 in accordance with the requirements of IAS 7 *statement of cash flows*. (14 marks)

(b) Explain the difference between the ***Direct and Indirect Method*** of reporting cash flow from operating activities. (4 marks)

(c) Explain two (2) disadvantages of statement of cash flow. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) The bookkeeper at Nyangulu Ltd. prepared a trial balance from the accounting records on 31 March 2020 that failed to balance by K19,507, a shortage on the credit side of the trial balance.

A suspense account was opened to record the difference. The following errors were discovered after careful inspection of the accounting records of the company:

1. Rent account had been under cast by K19,040.
2. Sales day book had been under cast by K25,897.
3. wages account had been overcast by K12,650.
4. Sale of computers had been credited to the sales account with K21,350.
5. Sales of K45,450 to M. Mungo had been debited in N. Manga’s account.

Required:

(i) Prepare the journal to correct the above errors. **(narratives are not required).** (5 marks)

(ii) Prepare the suspense account after the errors above have been corrected. (2 marks)

(iii) Show the calculations of the corrected net profit, if the net profit had previously been calculated as K97,320 for the year ending 31 March 2020. (3 marks)

(b) Muyombe Sililo, a sole trader, buys and sells cosmetics. The following trial balance was extracted from his books on 31 March 2020:

	Dr	Cr
	K	K
Premises	50,000	
Motor vans	7,400	
Trade receivables	1,680	
Trade payables		2,385
Purchases	160,260	
Sales		200,490
Wages	12,000	
Drawings	1,600	
Capital		30,000
	232,940	232,875

A suspense account was opened to clear the imbalance above in the trial balance. The following errors were discovered after an examination of the books and records:

1) Purchase of a motor van had been entered in the motor van account as K3,860 instead of K3,680.
2) The total of the purchases book K32,543 had been posted to the purchases account as K32,453.
3) The owner withdrew goods amounting to K140 for private use during March 2020. This amount had been debited to the wages account.
4) A cash discount of K25 allowed by Jean Mwale, a payable, had not been entered in Jean's account.

Required:

(i) Redraft the corrected trial balance after taking the above errors into account. (7 marks)

(ii) Explain any three (3) errors that do not affect the trial balance. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) JBK Plc. is a limited liability company that specialises in manufacturing garden chairs. As per legal requirement, companies are required to prepare financial statements. It is important to take into account a number of accounting concepts when preparing financial statement because this will make them useful. The financial statements prepared should possess certain characteristics in order for them to be relied upon by users. Users include both individuals and organisations, internal and external that are commonly recognised as having particular needs for accounting information.

Required:

(i) Explain the four (4) fundamental accounting principles. (8 marks)

(ii) Define the five (5) elements of the financial statements according to the conceptual framework. (5 marks)

(b) You are the Treasurer of Mathews Funsani Zulu Social Club of Lusaka. The club wants additional funding from financiers to increase its activities in the coming year. As a club secretary, you have therefore been tasked to prepare annual accounts of the club to present to prospective financiers. The following is the receipt and payment account of club for the year ended 31 December, 2020.

Mathews Funsani Zulu Social Club

Receipts and payments account for the year ended 31 December, 2020.

Receipts	K	Payments	K
Balance b/d	5,000	Office equipment	27,500
Subscription:		Salaries & wages	3,670
2019	1,234	Office expenses	1,340
2020 (including for 2020)	12,540	Electricity	1,280
Donation	1,870	Telephone	1,640
Entrance fees	2,390	Purchase of balls	8,400
Balance c/d	20,796		
	43,830		43,830

The following additional information is available at 31 December, 2020:

1) An invoice for office expenses amounting to K660 had not been settled at the end of the year by the club and outstanding salaries & wages totaled K1,330.

2) The telephone expenses for the period ending 31 December 2020 were prepaid by K450.

3) Subscriptions received on 1 January, 2020 for the year ending 31 December 2020 amounted to K1,278. The annual membership fee is K152 per member. Ten (10) members have not yet paid their membership fees for the year as at 31 December 2020. The club does not have the life membership provision for its members.

4) Depreciation is to be charged at 25% on office equipment. It is the club's policy to charge full years' depreciation in the year of acquisition and nil in the year of disposal.

Required:

Prepare the income and expenditure account for Mathews Funsani Zulu Social Club for the year ended 31 December, 2020. (7 marks)

[Total: 20 Marks]

QUESTION SIX

Lindaboni a trainee accountant of Mukatasha limited Company, has asked you to assist her to prepare a bank reconciliation statement for the month of January, 2020. She has provided you with the following bank statement from Stanbic Bank, Ndola branch and bank account details in respect of the month ended 31 January 2020.

Statement date - 31 January, 2020.

Stanbic Bank
Ndola branch
Account No 9987654321

Date	Particulars	Debit	Credit	Balance
		K	K	K
01-Jan-20	Balance brought forward			55,940 Cr
03-Jan-20	Cheque 596	2,500		53,440 Cr
03-Jan-20	Lodgement		14,140	67,580 Cr
06-Jan-20	Cheque 597	120		67,460 Cr
06-Jan-20	Direct debit	2,020		65,440 Cr
12-Jan-20	Credit transfer		4,660	70,100 Cr
13-Jan-20	Cheque 600	1,420		68,680 Cr
14-Jan-20	Cheque 601	12,028		56,652 Cr
16-Jan-20	Lodgement		9,000	65,652 Cr
19-Jan-20	Cheque 599	18,004		47,648 Cr
23-Jan-20	Bank charges	422		47,226 Cr
25-Jan-20	Quarterly interest received		62	47,288 Cr
27-Jan-20	Dishonoured cheque	1,600		45,688 Cr
27-Jan-20	Cheque 598	26,090		19,598 Cr
30-Jan-20	Cheque 603	5,048		14,550 Cr
31-Jan-20	Lodgement		14,500	29,050 Cr

31-Jan-20 Standing order: rent first quarter 2020	27,000		2,050 Cr

The books and records of Mukatasha show the followings transactions through the bank account for the month of January 2020:

Date	Receipts	K	Date	Payments	K
1/01/20	Balance b/f	67,580	4/01/20	Cheque 597	120
			6/01/20	Cheque 598	26,000
12/01/20	Lodgement	4,660	10/01/20	Cheque 599	18,004
16/01/20	Lodgement	9,000	11/01/20	Cheque 600	1,420
28/01/20	Lodgement	14,700	12/01/20	Cheque 601	12,028
31/01/20	Lodgement	8,220	18/01/20	Cheque 602	11,898
			20/01/20	Cheque 603	5,048
			30/01/20	Cheque 604	84
			31/01/20	Balance c/f	29,558
		104,160			**104,160**
1/2/2020	Balance b/d	29,558			

Required:

(a) Reconcile the opening balance as per the cash book and the bank statement. (2 marks)

(b) Prepare the adjusted cash book for the month of January 2020. (6 marks)

(c) Prepare a statement on 31 January 2020, reconciling the adjusted cash book with the bank statement balance. (2 marks)

(d) With examples explain three (3) causes of the difference between the cash book balance and the bank statement balance. (6 marks)

(e) Explain two (2) errors that will lead to a suspense account being opened. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA1.1 SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 A

1.2 C

1.3 D
1.4 C

1.5 A

1.6 C

1.7 D
1.8 A
1.9 C

1.10 D

SOLUTION TWO

MILANZI Statement of Profit or Loss for the year ended 31 December2019:

	K	K	K
Sales revenue		154,000	
Cost of sales		(62,065)	
Gross Profit		91,935	
Distribution costs	4,000		
Administration expenses (4000 +6000)	10,000		
Other operating expenses	----		
			(14,000)
Operating Profit		77,935	
Finance costs 10,000 x 6% x 9/12		(450)	
Profit before tax		77,485	
Income tax expense (8,000 – 3,000)		(5,000)	
Profit for the year		72,485	

MILANZI Statement of Changes in Equity for the year ended 31 December2019:

	Ordinary Shares	Share Premium	Retained Earnings
	K	K	K
Balances at start	20,000		27,000
Issue of shares	16,000	24,000	
Profit for the year			72,485
Dividends paid			(3,000)
Totals	36,000	24,000	96,485

MILANZI Statement of Financial Position as at 31 December2019:

	Cost	Accum Dep	Carrying amt
Non Current Assets:	K	K	K
Buildings	80,000	(14,000)	66, 000
Plant and machinery	50, 000	(30,000)	20,000
	130,000	44,000	86,000
Current Assets:			
Inventory		14,935	
Receivables			13,000
Bank 28,000+40,000		68,000	
			95,935
			181,935
Equity and liabilities			
Equity:			
Ordinary shares		36,000	
Share Premium		24,000	
Retained Earnings		96,485	
			156,485
Liabilities			
Non Current Liabilities:			
6% Loan Note			10,000
Current Liabilities:			
Payables control		7,000	
Income tax due		8,000	
Loan interest accrued		450	
			15,450
			181,935

Workings:

1. **Cost of Sales:**

Opening inventory	12,000
Purchases	60,000
Closing inventory 15,280 - 345	(14,935)
Depreciation	5000
COS	62,065

2. **Depreciation:**

Buildings 80,000 x 0.05	4,000
Plant and machinery (50,000 +25,000) x 0.25	5,000

3. **Issue of shares:**

Nominal value 8,000 x K2.00	16,000
Share premium 8,000 x K3.00	24,000
Proceeds in cash (entry in Bank account)	40,000

4. **Interest on loan:**

6% loan note interest 10,000 x 0.06 x 9/12	450

SOLUTION THREE

Zamcargo Limited Statement of cash flow for the year ended 31 December 2019

		K'000
Profit before tax		23,900
Add back Depreciation		10,000
Less profit on disposal		(2,000)
		31,900
Changes in assets and liabilities		
Increase in inventory	(3,400)	
Decrease in receivables	3,900	
Decrease in payables	(11,400)	
Decrease in other payables		(500)
Cash generated from operating activities		20,500
Interest paid		1,500
Tax paid		(10,000)
Net cash flow from operating activities		12,000
Cash flow from Investing Activities		
Acquisition of Assets	(10,000)	
Proceeds from sale of assets	4,000	
Net cash flow from investing activities		(6,000)
Cash flow from Financing Activities		
Proceeds from shares	5,000	
Dividends paid bf (5,600 +15,400=20000)	(1000)	
Loan repayment	(6,500)	
Net cash flow from financing activities		(2,500)
Increase in cash and cash equivalents		3,500
Cash and cash equivalent at the beginning		5,000
Cash and cash equivalent at end		8,500

b)

- Direct method discloses major classes of gross cash receipts and gross cash payments. It also discloses information not available elsewhere on the financial statements.
- Indirect method on the other hand presents net profit or loss adjusted for the effect of transaction of non-cash nature, deferrals and items of income or expense associated with investing or financing activities. It is also simple to use and widely used.

(c)

- It is subject to manipulation.
- It depends on other financial statements.
- It contradicts with accruals concept.

SOLUTION FOUR

a) i) Journal

Details	Dr	Cr
Trade receivables	25,897 (1/2)	
Sales		25,897
M. Mungo	45,450 (1/2)	
N. Manga's		45,450
Rent	19,040 (1/2)	
Suspense		19,040
Suspense	12,650 (1/2)	
wages		12,650
Sales	21,350 (1/2)	
Computer disposal account		21,350

ii) Suspense account

	K		K
Wages	12,650(1/2)	Balance b/d	19,507
Bal c/d	25,897 (1/2)	Rent	19,040
			38,547
	38,547		

iii)

		K	K
Net profit			97,320
	Add: Sales under cast (1)	25,897 (1/2)	
	wages overcast (4)	12,650 (1/2)	
			38,547
			135,867
	Less: Rent under cast (3)	19,040 (1/2)	
	Sales (5)	21,350 (1/2)	
			(40,390)
Corrected net profit			95,477

b) i)

Redrafted trial balance

	Dr	Cr
	K	K
Premises	50,000	
Motor vans (7,400-180)	7,220	
Trade receivables	1,680	
Trade payables		2,385
Purchases (160,260+90)	160,350	
Sales		200,490
Wages (12,000-140)	11,860	
Drawings (1,600+140)	1,740	
Capital		30,000

Suspense	25	
	232,875	232,875

ii) The error are as follows:
Omission error: This is where a transaction is completely omitted from the accounting books.

Error of principle: This is where a transaction or item is entered in the wrong class account. An example is where the purchase of a computer debited in the computer expenses account instead of computer account

Error of commission: This is where the correct amount is entered in the wrong account.

Compensating errors: This is where two (2) errors cancel each other out.
If the sales account was added up to be K10,000 too much and the purchases account was also added up to be K10,000 too much, then these two errors would cancel out in the trial balance

Original entry errors: This is where the original amount or figure is not correct, yet double entry is correctly done using the incorrect amount or figure.

Complete reversal error: This is where the correct amounts in the correct accounts are entered but each item is shown on the wrong side of the account.

SOLUTION FIVE

a) i) The four (4) fundamental accounting concepts or conventions are:

Going concerns concept
This states that the business entity will continue in operation for the foreseeable future and there are no intentions or liquidation or curtailing significantly the scale of its operations. The entity is normally viewed as a going concern, that is, as continuing in operation for the foreseeable future. It is assumed that the entity has neither the intention nor the necessity of liquidation or of curtailing materially the scale of its operations.
The main significance of this concept is that assets should be valued at their net book value and not at their break-up value. This concept assumes that, when preparing a normal set of accounts, the business will continue to operate in approximately the same manner for the foreseeable future (at least the next twelve (12) months). If this assumption is not held, then the financial statements would be prepared on a different (disclosed) basis.

Accrual basis
The accruals concept states that the effects of transactions and other events are recognised why they occur and recorded in the accounting records and reported in the financial statements of the period to which they relate and not as cash or its equivalent is received or paid. Financial statements prepared under the accruals basis show users part transactions involving cash and obligations to pay cash in the future and resources which represent cash to be received in the future.

Consistency concept
This states that an accounting policy adopted by an entity should be applied consistently when preparing financial statement and should never be changed unless circumstances justify a change.

Prudence concept
This concept states that assets and income should not be overstated and liabilities and expense should not be understated.

i) The main elements are:
   - Income
   - Expenses
   - Assets
   - Liabilities
   - Capital

b) Mathews Funsani Zulu Social Club
<u>Income and Expenditure Account for the year ended 31 December, 2020</u>

Expenditure		K	Income	K
Salaries & wages	(3,670+1,330)	5,000	Subscription	12,540
Office expenses	(1,360+660)	2,020	Subs in arrears	1,520
Electricity		1,280		

Irrecoverable Debts	(1278-1234)	44		
Telephone(1,640-450)		1,190	Entrance fee	2,390
Depreciation of equipment 25%X K27,500		6,875	Donation	1,870
Excess of income over expenditure		1,911		
		18,320		18,320

SOLUTION SIX

a) Reconciliation of Cash Book and Bank Statement

	K
Opening balance as per bank balance	55,940
Add outstanding lodgement	14,140
Less unpresented cheques	(2,500)
Balance as per Cash book	**67,580**

b) **Bank Account/ Cash Book**

	K		K
Balance	29,558	Direct debits	2,020
Interest	62	Bank charges	422
		Dishonoured cheque	1,600
		Error chq598(26,090 -26,000)	90
		Error in lodg (14,700 -14,500)	200
Balance C/d	1,712	Standing Order	27,000
	31,332		**31,**332
		Balance	1,712

c)

Bank Reconciliation as at 31 January 2020

		K	K
Balance per Bank Statement			2,050
Add outstanding lodgement			8,220
Less unpresented cheques:	#604	84	
	#602	11,898	(11,982)
Balance as per revised cash book			**(1,712)**

d) **Three** reasons for the bank statement and cash book variance

Timing differences

For example unpresented amounts where a cheque paid to a supplier posted to the cash book has not yet been deposited by the supplier with their bank.

Updating items

Transactions recorded by the bank not recorded or captured in the cash book for example bank charges, standing orders which could only be determined after reviewing the bank statement

Errors made in the cash book or bank statement

Errors of transposition in the cash for instance a misstatement in a supplier or customer cheque. Bank errors for example amounts could have been wrongly credited or deducted from the bank balance

(e)

Two errors leading to a suspense account include:

Error of single entry; one account was updated

Transposition error; an amount of 161 written as 116

Double debit or credit; both accounts were debited or credited

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.2: BUSINESS STATISTICS

WEDNESDAY 17 MARCH 2021

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:
   Section A: Ten (10) compulsory multiple choice questions.
   Section B: One (1) compulsory scenario question.
   Plus Four (4) scenario questions. Attempt any Three (3) questions.
3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

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

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

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

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

8. Present legible and tidy work.

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

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

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

SECTION A – (COMPULSORY)

Attempt all the ten (10) multiple choice questions.

QUESTION ONE

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

1.1 A manufacturing company of Men's shoes has noticed that 80% of their shoes are perfect, 15% of their shoes have one defect, and 5% have two defects. If you buy a new shoe from this company.

The expected number of defects is :

A 0.15

B. 0.20

C. 0.80

D. None of the above

(2 marks)

1.2 A researcher is studying students in Zambian colleges. He takes a sample of 500 students from 10 different colleges. The average age of all college students in Zambia is

A. Statistic

B. Median

C. Parameter

D. Population

(2 marks)

1.3 If Z is a standard Normal variable and $P(-1.43 < Z < k) = 0.6753$. Calculate the value of k.

A. 0.7517

B. 0.68

C. 0.924

D. 0.0764

(2 marks)

1.4 An increase in the number of patients due to heat stroke can be an example of?

A. Seasonal variation

B. Secular trend

C. Irregular variation

D. Cyclical variation

(2 marks)

1.5 Kagem Mining Limited has ten percent (10%) of its employees registered with GOOD WILL insurance company. If three (3) employees are selected at random, what is the probability that exactly two of them are registered with GOOD WILL insurance company?

A. 0.0027

B. 0.2

C. 0.01

D. 0.001

(2 marks)

1.6 Which of the following statements describes discrete data?

A. It takes 2 hours 5 minutes to fly from Lusaka to Johannesburg

B. Of 330 people on the airplane, 105 had connecting flights

C. The flight arrived at 7:12 PM

D. There were 4, 968 gallons of fuel consumed on the flight

(2 marks)

1.7 It's a well-known fact that the existence of outliers in a particular data set leads to problematic results

The order of measures "least affected by outliers" to "most affected by outliers" is:

A. mean, median, range

B. range, median, mean

C. median, range, mean

D. median, mean, range

(2 marks)

1.8 As the scatter of points about a regression line becomes greater, r^2 will:

A. Be unaffected

B. Become smaller

C. Become larger

D. Approach a value of 1

(2 marks)

1.9 A small financial institution is interested to know more about the age group of its clients.

The following is a sample of ages (years) of 18 clients:

36, 42, 18, 32, 22, 22, 25, 29, 30, 31, 19, 24, 35, 29, 26, 36, 24, 28

The median age of the clients is:

A. 29

B. 28.2

C. 30.5

D. 28.5

(2 marks)

1.10 During a study of possible correlation between the height (cm) (x) and weight (kg) (y) of chimpanzees, a sample of 40 animals produced a correlation coefficient of $r = +0.813$ and a regression line with equation $y = 0.34x + 19.5$. What is the expected weight of an 80 cm tall chimpanzee?

A. 177.9 Kg

B. 46.7 Kg

C. 24.0 Kg

D. 34.8 Kg

(2 marks)

[Total: 20 Marks]

SECTION B

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

Then attempt any THREE (3) questions out of the remaining four.

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

(a) A snack size bag of Trade Kings peanut candies contains 21 candies with the colours listed in the table below:

Colours of 21 candies			
Brown	Green	Brown	Bleu
Red	Red	Green	Brown
Yellow	Orange	Green	Blue
Brown	Blue	Blue	Brown
Orange	Blue	Brown	Orange
Yellow			

Required:

(i) Construct a Pie chart. (6 marks)

(ii) Construct a simple bar chart . (4 marks)

(b) A contractor has submitted bids on three state jobs: an office building, a theater, and a parking garage. State rules do not allow a contractor to be offered more than one of these jobs. If this contractor is awarded any of these jobs, the profits earned from these contracts are K10 million from the office building, K5 million from the theater, and K2 million from the parking garage. His profit is zero if he gets no contract. The contractor estimates that the probabilities of getting the office building contract, the theater contract, the parking garage contract, or nothing are 0.15, 0.30, 0.45, and 0.10, respectively. Let x be the random variable that represents the contractor's profits in millions of Kwacha.

Required:

(i) Write the probability distribution of x. (4 marks)

(ii) Compute the mean and standard deviation of x. (6 marks)

[Total: 20 Marks]

QUESTION THREE

(a) The price Kx of an LG radio cassette recorder is increased by K2 every six (6) months. The number of recorders sold during the six (6) months before the next increase is y thousand. The values covering eight consecutive periods are shown in the table.

Price (x)	40	42	44	46	48	50	52	54
Number of Records sold (y)	12.8	11.6	11.3	10.3	10.7	9.1	8.9	9.2

Required:

(i) Obtain the least square regression line suitable for this data. (9 marks)

(ii) Calculate an estimate of the number of records sold when the price is K58 and comment on the reliability of your estimate. (1 mark)

(iii) Calculate the correlation coefficient. (4 marks)

(b) An article in a certain Zambian Magazine claims that more than twice as many shoppers are out shopping on the weekends than during the week. Not only that, such shoppers also spend more money on their purchases on Saturdays and Sundays! Suppose that the amount of money spent at shopping centers between 16 hours and 18 hours on Sundays has a normal distribution with mean K85 and with a standard deviation of K20. A shopper is randomly selected on a Sunday between 16 hours and 18 hours and asked about his spending patterns.

Required:

(i) What is the probability that he has spent more than K95 at the mall? (2 marks)

(ii) What is the probability that he has spent between K95 and K115 at the mall? (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) What is meant by the term "skewness"? (3 marks)

(b) Demonstrate graphically the relationship between the mean, median and mode in both positively and negatively skewed distribution. (3 marks)

(c) In a sociology course the probability that Mumba gets an A in the final exam is $\frac{1}{6}$, and for Chisha and Chola the probabilities are $\frac{1}{3}$ and $\frac{2}{5}$ respectively. Assume independence.

Required:

Find each of the following probabilities:

(i) All three of them get an A in the exam; (2 marks)

(ii) None of them get an A in the exam; (2 marks)

(iii) Of the three only Chola gets an A; (2 marks)

(iv) Exactly one of them gets an A; (4 marks)

(v) Exactly two of them get an A. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) State any five (5) limitations of data analysis (10 marks)

(b) At a shooting gallery, suppose Champo, Kasonde, and Mutinta each take one shot at a moving target. The probability that Champo hits the target is 0.9, and for Kasonde and Mutinta the probabilities are 0.7 and 0.8, respectively. Assume independence and find each of the following probabilities:

(i) That none of them hit the target (1 mark)

(ii) That Mutinta is the only one who hits the target (1 mark)

(iii) That exactly one of them hits the target (4 marks)

(iv) That exactly two of them hit the target. (4 marks)

[Total: 20 Marks]

QUESTION SIX

(a) State whether each of the following variables is qualitative or qualitative. Give a reason for your answer.

(i) Annual sales (2 marks)

(ii) Soft drink size (Small, medium, or large) (2 marks)

(iii) Employee classifications (2 marks)

(v) Earnings per share (2 marks)

(vi) Method of payment (Cash, Cheque, Credit card) (2 marks)

(b) 85% of the girls and 70% of the boys at a school are able to play a musical instrument. If one (1) girl and one (1) boy are chosen randomly from the school. Calculate the probabilities that:

(i) Both are able to play a musical instrument. (2 marks)

(ii) Only one of them is able to play a musical instrument. (4 marks)

(iii) Given that the ratio of the number of girls to the number of boys in the school is 3: 5, calculate the probability that a randomly chosen pupil from the school is able to play a musical instrument. (4 marks)

[Total 20 Marks]

END OF PAPER

CA 1.2 SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 D

1.2 C

1.3 B

$P(-1.43 < Z < k) = 0.6753.$

$P(Z < k) - [1 - P(Z < 1.43)] = 0.6753 \quad \rightarrow \quad P(Z < k) - [1 - 0.9236] = 0.6753$

$$P(Z < k) = 0.7517 \ \rightarrow z = 0.68$$

1.4 A

1.5 A

Let X denote the event that a person is registered with GOOD WILL.

Therefore, we have that;

$\mathrm{n} = 3\,,\ \ \mathrm{P(success)} = \mathrm{p} = 0.1\ (\,\mathrm{q} = 1 - \mathrm{p} = 0.9)\,,$ So that $\mathrm{X} \sim \mathrm{B}(3, 0.1)$.

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

$\mathrm{P(X = 0)} = \binom{3}{2} (0.1)^2 (1 - 0.1)^{3-2} = 0.027$

1.6 B

1.7 D

1.8 B

1.9 D

36, 42, 18, 32, 22, 22, 25, 29, 30, 31, 19, 24, 35, 29, 26, 36, 24, 28

18, 19, 22, 22, 24, 24, 25, 26, 28, 29, 29, 30, 31, 32, 35, 36, 36, 42

$$Median\ = \frac{28 + 29}{2} = 28.5$$

1.10 1.8 B

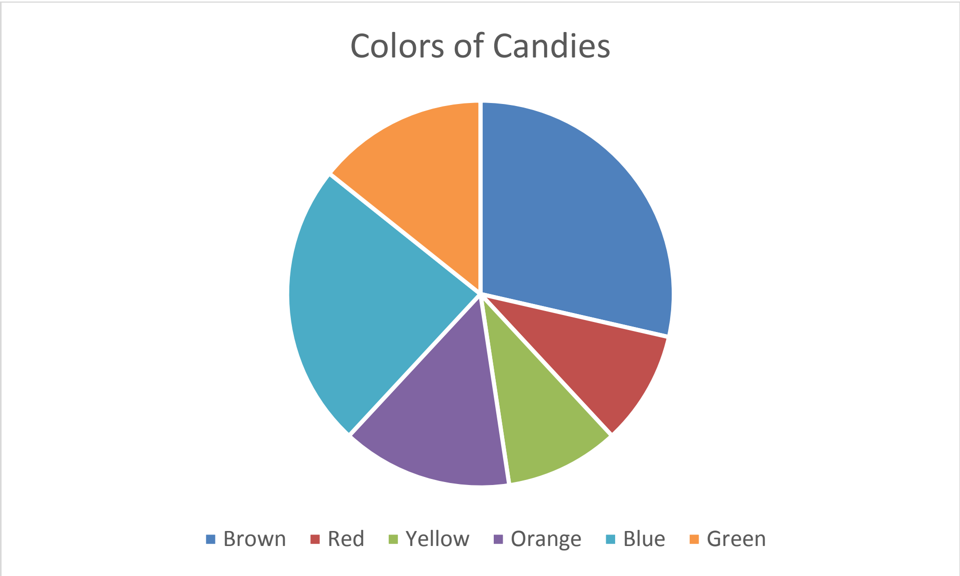
$$y = 0.34x + 19.5 = 0.34 \times 80 + 19.5 = 46.7Kg$$

SOLUTION TWO

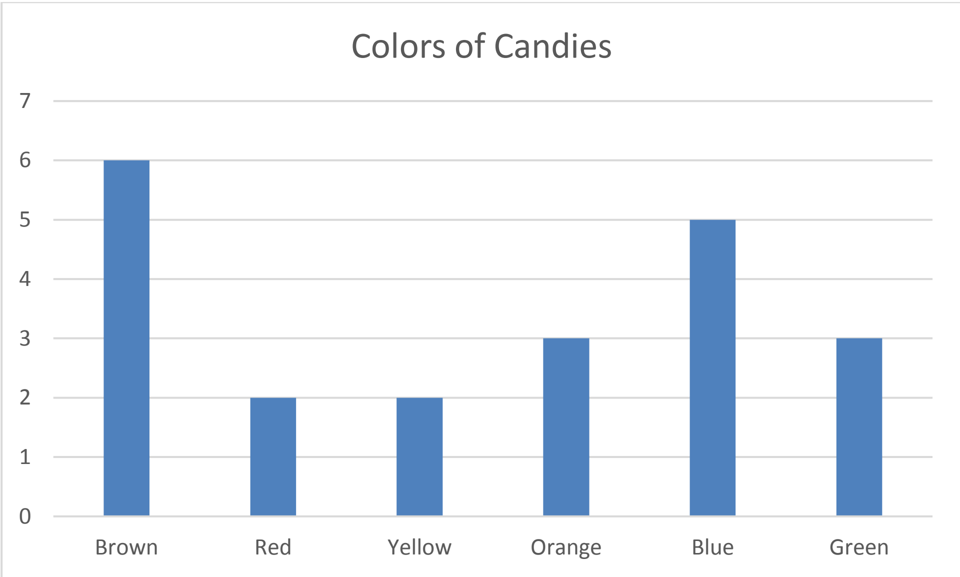
(a)

i.

color	freq	degree
Brown	6	102.86
Red	2	34.286
Yellow	2	34.286
Orange	3	51.429
Blue	5	85.714
Green	3	51.429
Total	**21**	**360**



ii.



(b) (i)

x	10	5	2	0
P(x)	0.15	0.30	0.45	0.10

(ii) Mean = 10(0.15) + 5(0.30) +2(0.45) + 0(0.10) = 1.5 + 1.5 + 0.9 + 0 = K3.9m.(2marks)

Variance $=(10-3.9)^2(0.15) + (5-3.9)^2(0.30) + (2-3.9)^2(0.45) + (0-3.9)^2(0.10)$

$=5.5815 + 0.363 + 1.6245 + 1.521 = 9.09$

s.d $= \sqrt{9.09} = 3.015$

SOLUTION THREE

Let $\mathrm{X} = \mathrm{Experience}$ and $\mathrm{Y} = \mathrm{Premium}$

i.

X	Y	XY	X^2	Y^2
40	12.8	512	1600	163.84
42	11.6	487.2	1764	134.56
44	11.3	497.2	1936	127.69
46	10.3	473.8	2116	106.09
48	10.7	513.6	2304	114.49
50	9.1	455	2500	82.81
52	8.9	462.8	2704	79.21
54	9.2	496.8	2916	84.64
$\sum X = 376$	$\sum Y = 83.9$	$\sum XY = 3898.4$	$\sum X^2 = 17840$	$\sum Y^2 = 893.33$

Therefore,

$$\beta = \frac{n\sum XY - \sum X \sum Y}{n\sum X^2 - \left(\sum X\right)^2} = \frac{8\times 3898.4 - 376\times 83.9}{8\times 17840 - (376)^2} = \frac{-359.2}{1344} = -0.267$$

and

$$\alpha = \overline{Y} - \beta\overline{X} = \frac{83.8}{8} + 0.267\left(\frac{376}{8}\right) = 23.024$$

Hence, the least–squares regression line is

$$y = \alpha + \beta x = 23.024 - 0.267x$$

ii. $y = \alpha + \beta x = 23.024 - 0.267 \times 58 = 7.538$ (1mark)

iii. $\boldsymbol{r = \frac{n\sum xy - \sum x \sum y}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}}$

$$= \frac{8(3898.4) - (376)(83.9)}{\sqrt{[8(17840) - 376^2][8(893.33) - 83.9^2]}}$$

$$\boldsymbol{r = -0.945}$$

(b)

i. $Z = \frac{X-85}{20}$

$$P\left[\frac{X-85}{20} > \frac{95-85}{20}\right]$$
$$= P[Z > 0.5]$$
$$= 1 - 0.6915 = 0.3085$$

ii.

$$P\left[\frac{95-85}{20} < \frac{X-85}{20} < \frac{115-85}{20}\right]$$

$$P[0.5 < Z < 1.5]$$
$$P[Z < 1.5) - P[Z < 0.5]$$
$$0.9332 - 0.6915$$
$$= 0.2417$$

SOLUTION FOUR

(a) Skewness is the statistical term for symmetry or 'lop – sidedness'. Data which are not symmetrical may be either positively or negatively skewed. The sign is determined by where the majority of observations lie. If there are more observations below the mean than above it, are said to be positively skewed; if there are more above, there is negative skewness.

(b) See Figure 1.0 The normal curve with mean, mode and median values inserted in to show skewed distribution should have been draw by the writer.

(c)

(i) $P(\, all\ three\ of\ them\ get\ an\ A) = \frac{1}{6} \times \frac{1}{3} \times \frac{2}{5} = \frac{2}{90} \approx 0.0222$

(ii)

$$P(none\ get\ an\ A) = \frac{5}{6} \times \frac{2}{3} \times \frac{3}{5} = \frac{1}{3} \approx 0.3333$$

(iii) $P(only\ Chola\ gets\ A) = \frac{5}{6} \times \frac{2}{3} \times \frac{2}{5} = \frac{10}{45} \approx 0.2222$

(iv) $P(one\ of\ them\ gets\ an\ A) = \frac{1}{6} \times \frac{2}{3} \times \frac{3}{5} + \frac{5}{6} \times \frac{1}{3} \times \frac{2}{5} + \frac{5}{6} \times \frac{2}{3} \times \frac{2}{5}$

$$= \frac{2}{30} + \frac{2}{18} + \frac{2}{9} = \frac{2}{5} = 0.4$$

(v) $P(exactly\ two\ get\ an\ A) = \frac{1}{6} \times \frac{1}{3} \times \frac{3}{5} + \frac{1}{6} \times \frac{2}{3} \times \frac{2}{5} + \frac{5}{6} \times \frac{1}{3} \times \frac{2}{5}$

$$= \frac{3}{90} + \frac{4}{90} + \frac{10}{90} = \frac{17}{90} \approx 0.1889$$

SOLUTION FIVE

(a) Any one of the following if stated gets two marks

(i) Data is incomplete

(ii) Data lacks neutrality

(iii) Inconsistencies in terms of the basis on which data was prepared

(iv) Not verifiable

(v) Level of detail

(vi) Out of date

(vii) Deliberately distorted

(b) We define the following probabilities $P(Champo) = 0.9$, $P(Kasonde) = 0.7$, $P(Mutinta) = 0.8$

(i) $P(none\ hit\ the\ target) = (1 - .9)(1 - .7)(1 - .8)$

$= (0.1)(0.3)(0.2) = 0.006$ (1mark)

(ii) $P(Mutinta\ hits\ the\ target) = (0.1)(0.3)(0.8) = 0.0024$

(iii) $P(exactly\ one\ of\ them\ hits\ the\ target = 0.9(.3)(.2) + 0.1(0.3)(0.8) + 0.1(0.7)(0.2) = 0.0054 + 0.0024 + 0.0014 = 0.0092$

(iv) $P(exactly\ two\ of\ them\ hits\ the\ target) = 0.9(.7).2) + 0.9(.3).8) + 0.1(.7).8) = 0.0012 + 0.00216 + 0.0056 = 0.0028$

SOLUTION SIX

(a)

(i) Quantitative variable because it can be expressed in numerical form
(ii) Qualitative variable because it cannot be expressed in numerical form
(i) Qualitative variable because it cannot be expressed in numerical form
(ii) Quantitative variable because it can be expressed in numerical form
(iii) Qualitative variable because it cannot be expressed in numerical form

(b)

(i) $P(both) = (0.85)(0.70) = 0.595$

(ii) $P(one\ of\ them) = (0.85)(0.30) + (0.15)(0.70)$

$$= 0.255 + 0.105 = 0.36$$

(iii) $P(randomly\ chosen\ pupil) = \frac{3}{8} \times (0.85) + \frac{5}{8} \times (0.70)$

$$= \frac{2.55+3.5}{8} = \frac{6.05}{8} = 0.75625$$

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.3: BUSINESS ECONOMICS

TUESDAY 16 MARCH 2021

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 (1) of the following is the focus of macroeconomics?

A. Demand and supply for an individual good in an economy
B. Demand and supply for all goods in an economy
C. Elasticity of demand and supply for all goods in an economy
D. Census of population in an economy

(2 marks)

1.2 In economic terms, a good is scarce if it………………

A. Is only available in the shops
B. Only exists in small quantities
C. Provides consumers with economic welfare
D. Commands a price

(2 marks)

1.3 Which of the following statements is correct for a planned economy?

A. The price mechanism determines the allocation of resources
B. Individual firms make decisions for themselves about what to produce and how to produce it
C. All the prices are determined by the interaction of demand and supply
D. There is likely to be a large public sector

(2 marks)

1.4 If the firm's long-run Average Total Cost (ATC) is falling……………………………..

A. There are economies of scale in production
B. There are diseconomies of scale in production
C. Costs per unit increase as output increases
D. Costs per unit remain constant as output increases

(2 marks)

1.5 If all commercial banks in Zambia operated a cash reserve ratio of 20%, how much would be deposited with the banks for the money supply to increase by K300 000?

A. K60 000
B. K75 000
C. K225 000
D. K240 000

(2 marks)

1.6 The Marginal Propensity to Consume (MPC) measures…………………………….

A. The relationship between changes in consumption and changes in consumer utility
B. The proportion of household incomes spent on consumer goods
C. The proportion of total national income spent on consumer goods
D. The relationship between changes in income and changes in consumption

(2 marks)

1.7 In the circular Flow of income model, which one of the following statements is correct about the role of households?

A. They buy goods and factors of production
B. They sell goods and factors of production
C. They buy goods and sell factors of production
D. All of the above (2 marks)

1.8 Which of the following statements is true about a protective tariff?

A. It increases the sales of foreign exporters
B. It increases the price and sales of domestic producers
C. It increases the welfare of domestic consumers
D. It creates an efficiency gain in the domestic economy (2 marks)

1.9 Which of the following is the best example of an external social cost?

A. Restrictions on the supply of oil leading to an increase in fuel prices
B. Bad weather leading to a poor maize harvest and an increase in mealie meal prices
C. Possible illness which people may suffer from drinking too much beers
D. Pollution emitted from a factory which has caused local residents to become ill

(2 marks)

1.10 Which one (1) of the following would cause the supply 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. A fall in production costs for a 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)

Anyone who has travelled by commercial airline, even on an infrequent basis, knows that there is a bewildering plethora of fares for the same route. Besides the standard first class and coach fares, there are discount fares for round-trip travel and for travellers, who book two (2) or more weeks in advance, leave during the week, stay over Saturday night, or fly standby. The fare structure is daunting not only for travellers but also for the airlines. In determining the standard coach fare on a particular route, the airline has to consider many factors including the cost of flight, prices charged by competitors, among others. As in all businesses, some travellers are price-sensitive while others are not. The key is how to price seats to generate the greatest possible profit.

Required:

(a) Explain any four (4) determinants of price elasticity of demand for a good. (8 marks)

(b) At the current $240 fare, 100 coach tickets are sold. If the airline cuts its price to $235, 110 seats would be demanded. Find the price elasticity of demand for air ticket (all other factors held constant) (6 marks)

(c) Use your answer to question 3(b) above to explain the nature of demand for air ticket. (2 marks)

(d) If the airline firm wants to increase its revenues should it increase or reduce the price? Explain your answer. (4 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

John Banda was a Civil Servant who opted to retire early to start his own business named Banda's Cookie Bakery. Banda buys flour, sugar, flavourings, and other cookie ingredients. He also buys the mixers and ovens and hires workers to run this equipment. A worker costs K100 per day and his business has fixed costs of K200. He sells his cookies to consumers.

The relationship between the number of workers and output in a day is as follows:

Number of workers	Output (Quantity)	Marginal Product	Total Cost	Average Total Cost	Marginal Cost
0	0				
1	20				
2	50				
3	90				
4	120				
5	140				
6	150				
7	155				

Required:

(a) Fill in the column for marginal product and explain the pattern (4 marks)

(b) Fill in the column for total cost (2 marks)

(c) Fill in the column for average total cost and explain the pattern (4 marks)

(d) Fill in the column for marginal cost and explain the pattern (4 marks)

(e) Compare the column for marginal product and the column for marginal cost and explain the relationship (3 marks)

(f) Compare the column for average total cost and the column for marginal cost and explain the relationship (3 marks)

[Total: 20 Marks]

QUESTION FOUR

The Finance Minister Dr. Bwalya Ng'andu held a Press Conference on the State of the economy on 10 February 2020. Among the other highlights the minister disclosed that, 'The inflation rate at the end of December 2019 was recorded at 11.7% from 7.9% in December 2018. The increase in inflation reflected a combination of an increase in prices for food items, upward adjustment in fuel prices as well as the pass through for the depreciation of the Kwacha. In response, the Bank of Zambia adjusted the Monetary Policy rate to 11.5% in November 2019 from 10.25% and Statutory reserve ratio to 9% from 5% in December 2019. Commercial Banks' average lending rates increased to 28% in December 2019 from 25.4% in June 2019. This reflected the rise in the cost of funds and mirrored yield rates on government securities'. (**Daily Mail 11/02/2020).**

Required:

(a) Outline any four (4) factors that can cause lending rates to increase. (4 marks)

(b) List any four (4) possible negative effects of an increase in lending rates on Zambian businesses. (4 marks)

(c) Explain any three (3) Monetary Policy measures the Bank of Zambia can use to reduce the lending rates in Zambia. (6 marks)

(d) Explain the relationship between inflation and lending rates. (3 marks)

(e) Explain the relationship between inflation and a depreciating kwacha. (3 marks)

[Total 20 Marks]

QUESTION FIVE

In modern economies, most economic activities take place in markets, where buyers and sellers come together to strike bargains. A simple model called demand and supply does an excellent job in describing how markets work. This model reasonably separates buyers from sellers and then summarises each group's behaviour with a single line graph. For example, in the market for tomatoes the model can show how buyers and sellers interact to determine how much will be sold and at what price.

Using demand and supply analysis, illustrate graphically and explain the effects of each of the following events on equilibrium price and equilibrium quantity on the market for tomatoes:

Required:

(a) Decrease in the price of tomatoes per box (5 marks)

(b) Increase in the cost of chemicals used in tomatoes production (5 marks)

(c) Discovery of a new uses for tomatoes (5 marks)

(d) Increase in minimum wages paid to farm workers (5 marks)

[Total: 20 Marks]

QUESTION SIX

Sitali is a well-known fish trader in Mongu. He buys fish from the fishermen from the source and sells the fish to home consumers, restaurant owners and company canteens locally. He always insists on being paid cash instead of cheques. When he is paid cash he puts the cash under his pillow in his bedroom until it is needed to buy something. Sitali is surprised that his K100 cannot buy as many goods as it used to before. Prices of all goods have gone up. Puzzled, he asked his learned friend what this is all about. His friend simply said, 'this is inflation'.

Required:

(a) Explain what inflation is to Sitali (2 marks)

(b) Explain, in detail, how inflation affects the functions of money (12 marks)

(c) Explain any three (3) measures that the government can use to control inflation and help Sitali (6 marks)

[TOTAL: 20 Marks]

END OF PAPER

CA 1.3 SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

a) The factors that affect elasticity of demand for any product are:
   - **Substitutability**: A product with close substitutes has high elasticity compared to a product without close substitute.
   - **Necessities versus Luxuries**: A necessity is a good consumed to sustain life while a luxury is a good which makes life easier and enjoyable. A necessity has inelastic demand while a luxury has elastic demand
   - **Percentage of income**: Small items in expenditure such as a box of matches tend to have inelastic demand compared to large items.
   - **Time**: In the short run demand is inelastic while in the long run it is elastic as buyers can have many options to choose from.

b) The **price elasticity of demand (PED)** is a measure of the sensitivity of the quantity which will be demanded by consumers of a good to changes in the price at which it is available to them.
   Change in quantity demanded = 110 – 100 = **10**
   Average quantity demanded $= \frac{110 + 100}{2}$ = **105**
   Change in price = 235 – 240 = **-5**
   Average price $= \frac{235 + 240}{2}$ = **237.5**

PED = $\frac{Change\ in\ Quantity\ \ demanded}{Average\ quantity}$ x $\frac{Average\ price}{Change\ in\ price}$

PED = $\frac{10}{105}$ x $\frac{237.5}{5}$ = **-4.5**

OR

PED = $\frac{percentage\ change\ in\ Quantity\ \ demanded}{Percentage\ \ change\ in\ price}$ =

$= \frac{\%\Delta Q}{\%\Delta P} = \frac{10.0\%\%}{-2.1\%}$ = **-4.8**

c) Demand is elastic since the elasticity value is greater than 1. Buyers are very responsive to a change in the price of product A.

d) To increase Total Revenue, the seller must reduce the selling price. The increase in quantity demanded will be greater than the decrease in price, hence Total Revenue will increase. This is because the consumers are very responsive to a change in price. A small reduction in price will lead to a large increase in quantity demanded thereby increasing total revenue.

SOLUTION THREE

Number of workers	Output (Quantity)	Marginal Product	Total Cost	Average Total Cost	Marginal Cost
0	0	-	200	-	-
1	20	20	300	15.0	5.0
2	50	30	400	8.0	3.3
3	90	40	500	5.6	2.5
4	120	30	600	5.0	3.3
5	140	20	700	5.0	5.0
6	150	10	800	5.3	10
7	155	5	900	5.8	20

a) Marginal product (MP) starts low but rises as more and more of the variable factor is added to a fixed factor until the maximum is reached. From there the Law of Diminishing Returns sets in and the MP falls continuously.
b) See TC column in the table above
c) ATC first falls as output increases and then rise as output increases further
d) Start high but falls as more and more units are produced before rising again
e) There are negatively related.
f) They both trace a U-shape. They start high and fall as more and more units are produced before rising again.

SOLUTION FOUR

a) The following are the factors that can cause lending rates to increase:
   - **Risks**: The higher the risk the higher the lending rate charged on the borrower
   - **Government policy**: An increase in Monetary Policy Rate, an increase in statutory reserve ratio, and increase in discount rate all lead to increase in lending rates
   - **Inflation rates**: The higher the level of inflation the higher the interest rate.
   - **Interest rates abroad** can also have significant on local interest rates.
   - **Competition between banks**: Absence of completion among lenders leads to monopolized lending at high lending rates

b) The following are the negative effects of increases in lending rates to Zambian businesses:
   - Higher lending rates discourages borrowing by businesses from banks
   - Higher lending rates encourages businesses to save money on various interest earning investments, thereby reducing spending.
   - Increased cost of doing business
   - Expansion plans may be abandoned or pushed to a future date
   - Increased defaults from businesses that may have borrowed money from banks

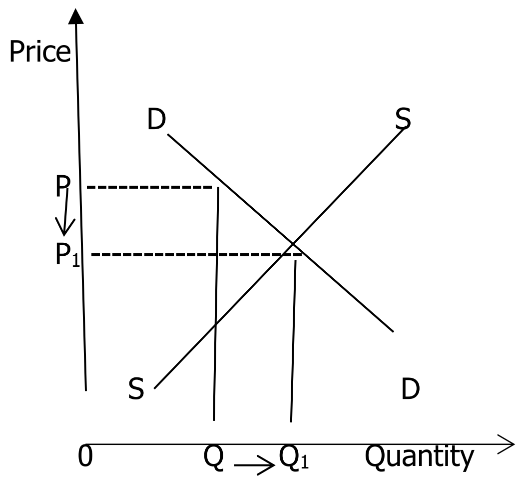
c) The Bank of Zambia can use the following monetary policy tools to reduce the lending rates:
   - **Open market operation** (OMO): This is the buying and selling of government securities on the operation market. To reduce lending rates the government will buy securities on the open market. This increases the liquidity in the market thereby reducing lending rates.
   - **Discount rate policy**: The discount rate is the interest rate that the central banks charges to commercial bank that borrow from it. To reduce lending rates, the Bank of Zambia may reduce the discount rate allowing banks to borrow cheaply and lend cheaply.
   - **Required reserve policy**: The required reserves is the fraction of the deposits that every deposit accepting institutions is required to keep with central bank in order for to meet it legal obligations. To reduce lending rates, the Bank of Zambia may reduce the statutory reserve ratio. This increases the capacity of banks to lend and liquidity is increased.
   - **Reducing the Monetary policy rate.**

d) The relationship between inflation and lending rates is positive, that is, an increase in inflation rates leads to an increase in lending rates and vice versa.

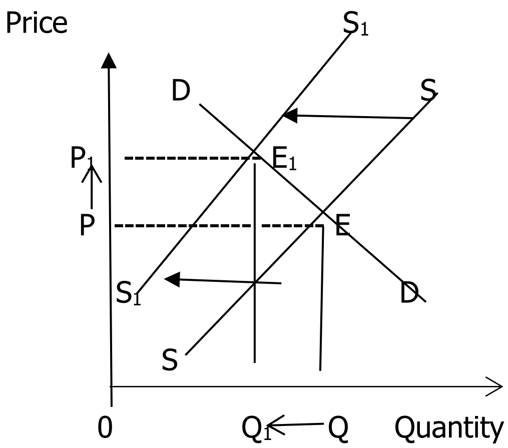
e) The relationship between inflation rate and the depreciating kwacha is that high inflation rates leads to a kwacha becoming weak relative to other currencies where the inflation rate may be lower.

SOLUTION FIVE

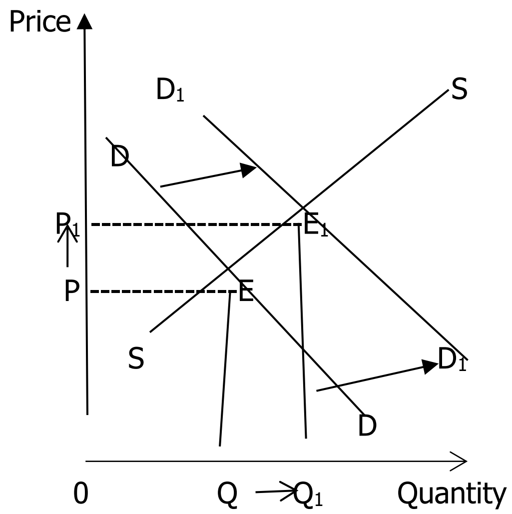
a) A decrease in the price of tomatoes leads to movement along a demand curve. It also called change in quantity demanded. As the price reduces from P to P_1, the quantity demanded increases from Q to Q_1 (Refer to the graph below).



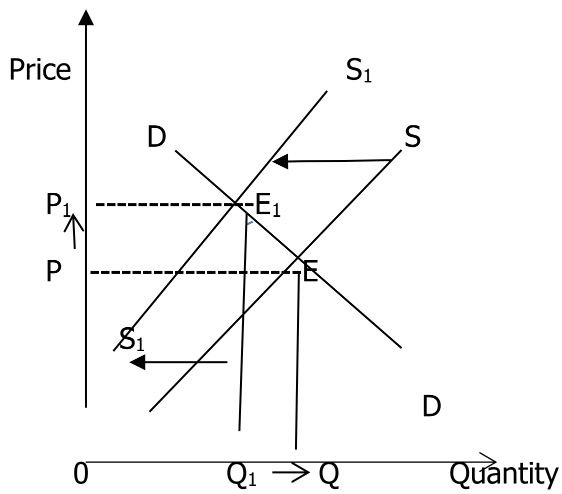
b) Increase in cost of chemicals increases the cost of production hence the supply curve shifts to the left. Equilibrium quantity decreases from Q to Q_1 and the equilibrium price increases from P to P_1 (Refer to graph below).



c) A discovery of new uses for tomatoes means that more of it is demanded at each of the old price. This shifts the demand curve for tomatoes to the right. The equilibrium quantity increases from Q to Q_1 while the equilibrium price increases as well from P to P_1 (Refer to the graph below).



d) An increase in minimum wages paid to farm workers increases the costs of production hence the supply curve shifts to the left, that is, less is supplied. The equilibrium quantity decreases from Q to Q_1 and the equilibrium price increases from P to P_1 (Refer to the graph below).



SOLUTION SIX

a) Inflation is defined as a sustained increase in the average level of prices over time.

b) Money has four major functions which are negatively affected when inflation is high. These are:
   - **Money as a medium of exchange**. This means that is used to exchange goods and services without money barter system will be used. However, during high inflationary times, it becomes expensive to buy goods and services. The same K100 will buy less goods. Therefore, people may substitute money with other things as a medium of exchange.
   - **Money as a unit of account**. Before exchange can take place it is important to know the relative worth of items to be exchanged, thus money is used as measure or standard of value. During high inflationary times, money loses this function; it becomes a very poor measure of value.
   - **Money as a means of deferred payment**. People are able to enter into contracts now for settlement in future because of money. When inflation is high, people refuse to enter into such contracts.
   - **Money as a store of value**. Money is usually used as a way of holding wealth. This is because money is the most liquid asset. That is, it is really spendable compared to other types of assets. When inflation is high, money becomes a very poor store of value compared to other items.

c) To cure inflation the government may adopt any of the following policies:
   - **Deflationary measures:** These include restrictive or tight monetary and fiscal policies. These entail reducing money supply, increasing the interest rates, restricting credit creation by banks, cutting down government expenditure and raising the tax rates.
   - **Incomes and prices policy:** Prices policy is concerned with government introducing price controls for essential commodities. Income policy on the other hand, relates to government's introduction of a wage freeze for civil servants.
   - **Commercial policies:** These help to combat inflation coming through imports. It is concerned with the introduction to barriers to trade aimed at restricting imports using tariffs, quotas, etc.
   - **Indexation:** This is not a cure for inflation as such. Its main aim is to insure that people's purchasing power remains the same amidst increases in inflation e.g. When inflation rate goes up by 3%, people earnings should also be adjusted upwards by the same 3%.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 19 MARCH 2021

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 INVIGILTOR.

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 Identify what a contract is

A. An offer accompanied by acceptance

B. Legally binding and enforceable agreements

C. A duty to perform an agreement

D. A legal negotiations

(2 marks)

1.2 Laws made by Parliament are?

A. Laws that regulate Parliament

B. Laws of Parliament

C. By-laws

D. Orders in Council

(2 marks)

1.3 A share in corporate law is?

A. A dividend

B. A charge

C. Capital

D. An interest in a company

(2 marks)

1.4 What is incorporation?

A. A company outliving the promoters

B. Taking the company away from the owners

C. Perpetual succession

D. Separation of the company from the sponsors

(2 marks)

1.5 The law of tort is concerned with?

A. Enriching the aggrieved party

B. Award based on what performance would have given

C. Restoring aggrieved party to original position

D. It ensures the breaching part is adequately punished

(2 marks)

1.6 An employee is?

A. One who works for a living

B. One who works with instructions and receives a wage

C. One who is contracted to perform a particular job

D. One registered under NAPSA

(2 marks)

1.7 There are numerous remedies for breach of contract available for a Buyer under the Sale of Goods Act, which one of the following is not?

A. Recovery of the price.

B. Damages for non-delivery.

C. Exercising a lien over the Goods.

D. The right to reject the Good.

(2 marks)

1.8 When a person has more debts than assets they are described as?

A. Poor

B. In debt

C. Bankrupt

D. Liquidated

(2 marks)

1.9 A contract with a minor is?

A. More advantageous

B. Can be avoided

C. Voidable

D. Coerced

(2 marks)

1.10 Breach of a duty of care and damage is?

A. A breach of an agreement

B. Punishable by imprisonment

C. A tort

D. A wrong in contract

(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 QUESTION)

On 13 October, 2014, Angel who lives in Kabwe and is involved in the sale of scrap metal saw an advert for an auction sale in Lusaka by Fredjoe for scrap metal on 15 October, 2014. He travelled to Lusaka and on arrival found that the same had been cancelled. He is mad and wants a refund. A week later, Fredjoe holds the auction and John makes an offer for a piece of copper but before the auctioneer hit the gavel, John withdrew his offer. There being no further offers, the piece remained unsold. Fredjoe threatens to sue. Additionally and in an unrelated matter, 3D Ltd have used Shady transport Ltd for a number of years. On this occasion, the Managing Director of 3D telephoned Shady transport Ltd and arranged for the transportation of some expensive laptop computers to a customer. Shady transport confirmed the order by sending a notice to this effect. However, due to driver error, the vehicle carrying the laptops overturned and all the laptops were destroyed. Shady transport has informed 3D Ltd that they intend to rely on the following clause: ***"Shady transport Ltd will not accept any liability for loss or damage caused to customers' property during transportation, no matter how the loss or damage was caused. Customers are advised to take out their own insurance".*** Shady transport has pointed out that the clause appears in a notice prominently displayed outside the entrance to the company's offices, and is reproduced on the back of all invoices, receipts and confirmation of order notices issued by the company.

Required:

(a) With reference to the above scenario, advise the parties as to their rights and obligations under the contract. (8 marks)

(b) Explain on whether Shady Transportation Limited can succeed in relying on the clause. (7 marks)

(c) List any five (5) way to Fredjoe in which an offer can be terminated. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Uku'anka Company Limited (Trading as; Uku'anka Construction) is a company set up, owned and run by two young men that have a passion for generational wealth creation, and creating employment for their fellow youth.

The Construction establishment has since been awarded a contract to upgrade the Pedicle road in the Northern part of Zambia and to bring the said road to a bituminous standard. This is their first ever Grade One (1) contract as a company and as such, the two Directors are not only excited, but also determined to ensure that they do not disappoint the *Road Development Agency* and also that they meet their contract obligations under the road contract.

The establishment through its Directors has since begun the mobilization process for the equipment and human capital, following the *Road Development Agency's* public circular that Contractors must quickly get on cite before the coming of the rainy season as per the conditions of the contract. The two (2) Directors are now considering external forms of finance. They have since approached a named Bank which has informed them that once financed, the company would have to create a certain charge of the Assets of the company.

Requiring a further understanding of what they are about to get themselves into, the two (2) Directors have since approached your learned self for guidance on the various issues arising.

Required:

(a) Discuss with the two (2) Directors the two (2) types of charges that can be created over the assets of a company. (10 marks)

(b) List any five (5) elements of a contract for the two Directors. (5 marks)

(c) Explain to the two (2) Directors the difference between a condition and a warranty under a contract. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

Explain the following:

(a) Three (3) duties of an employer and two (2) duties of an employee (5 marks)

(b) Wrongful and unfair dismissal (5 marks)

(c) Agency by estoppel (5 marks)

(d) Vicarious liability (5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) The company's articles state that the company has been formed solely in order to produce and sell toy guns and anything related to that particular business. The articles further provide that the Board must secure a shareholder resolution approving any contract to commit the company for more than ZMW 700,000.00.

Annually, the Board of Directors approves a list of personnel authorized to enter into contracts on behalf of the company with third parties. The company however has debt and decided to involve itself in drug supply. One major shareholder is dissatisfied with the change of company objectives and would like to have this company wound up.

Required:

Explain to the major shareholder the suitable mode of winding up this entity.

(10 marks)

(b) It is stated that a company may decide to alter its share capital upon the stipulated procedure.

Required:

Explain the procedure for alteration of share capital. (10 marks)

[Total: 20 Marks]

QUESTION SIX

Chalata Wasu is a corporate literature enthusiast, he finds himself reading a Corporate Governance magazine and he comes across the following extract:

'The world over, individuals have made colossal and unexplained sums of money, most of which they have made numerous attempts to integrate in various 'systems' for purposes of legitimizing the funds. Could this be a money laundering scheme?"

The article further reads as follows:

''.....all business Executives ought to be mindful of the responsibilities their business Organizations have with respect to Money Laundering in order to avoid committing offences"

Intrigued by, though not able to understand the extract he just read, Chalata has approached you for advise.

Required:

(a) Define Money Laundering for Chalata. (2 marks)

(b) Discuss for the benefit of Chalata the three-step Money Laundering process. (9 marks)

(c) Explain to Chalata the three categories of Money Laundering offences? (9 marks)

[Total: 20 Marks]

END OF PAPER

CA1.4 SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) In the first part of the scenario, what is basically at play is invitation to treat. An invitation to treat is an action inviting other parties to make an offer to form a contract. These actions may sometimes appear to be offers themselves, and the difference can sometimes be difficult to determine. The distinction is important because accepting an offer creates a binding contract while "accepting" an invitation to treat is actually making an offer.

Advertisements are usually invitations to treat, which allows sellers to refuse to sell products at prices mistakenly marked. Advertisements can also be considered offers in some specific cases. Auctions are sometimes invitations to treat which allows the seller to accept bids and choose which to accept. However, if the seller states that there is no reserve price or the reserve price has been met, the auction will be considered an offer accepted by the highest bidder.

In the case at hand, the advertisement made on 13th October 2014 by Fred Joe amounted to an invitation to treat. Angel cannot succeed in suing Fred Joe. This was the case in **Partridge v. Crittenden (1969)**

Further, Fred Joe cannot succeed against John, the reason being that auction sale are premised on the gavel being hit. The gavel was not hit by the time John withdrew his offer and as such no contract was formed in this instance. This legal position was fortified in the case of **Payne V. Cave (1789)**

(b). The second part of the scenario is premised on exclusion clauses. By definition, an exclusion clause , is a clause which in a contract which purports to exclude liability altogether or to restrict it by limiting damages or by imposing other onerous conditions. To be enforceable, a term must be validly incorporated into a contract before they have any legal effect. In the case of ambiguity, they are usually interpreted in favour of the Plaintiff. Shady Transport Limited will not succeed in relying on the said clause. They are strictly liable because the clause fall far short of the requisite for its consideration which include *inter-alia*;

- The document containing the notice of the clause must be an integral part of the contract.
- The term must be put forward before the contract is made

- Onerous terms must be sufficiently highlighted.

This being the case, shaddy transport did not meet these requirements and as such cannot succeed. They are fully liable in this matter.

(C) Offers may be terminated in any one of the following ways:

1. Revocation of the offer by the offeror;
2. counteroffer by offeree;
3. rejection of offer by offeree;
4. lapse of time;
5. death or
6. disability of either party;
7. when performance of the contract becomes illegal after the offer is made.

SOLUTION THREE

(a) To begin with a charge over a company asset can properly be defined as; that which gives a particular Creditor a prior claim over all other Creditors for the payment of their monies out of the charged assets of the company. Charges over the assets of a company come in two forms, a fixed charge and a floating charge.

1. **Floating Charge**

   A floating charge has been defined in the celebrated case of ***Re: Yorkshire Woolcombers Association Limited 1903*** as being:

   "A charge on a class of assets of a Company, present and future, which class is, in the ordinary course of the Company's business, charging from time to time. Until the Holders enforce the charge, the Company may carry on business and deal with the assets charged"

   Suffice to note that a floating charge is not restrictive in nature as it hovers over both present and future assets of the company and does not attach to any one particular asset of the Company, until such a time that it shall have cystalized.

2. **Fixed Charge**

   A fixed charge, unlike a floating charge attaches to a particular asset of a Company and give the Holder the right of enforcement against an identified asset of the Company. This kind of a charge attaches as soon as it is created.

   This kind of a charge is best suited for assets that can properly be described as long- term assets that a company is likely to hold, e.g. real property. A mortgage is an example of a fixed charge.

   Should the Company for any reason decided to dispose of an asset the subject of a fixed charge, the company will have to pay off the debt out of the proceeds of the sale or hand over the asset.

   In conclusion, it is clear that a fixed charge differs from a floating charge in the sense that the former attaches to a particular asset of the Company, whereas the latter hovers over the assets of the

Company, until such a time that shall have crystalized and attached to a particular asset.

(b) The following are the essential elements of a valid contract:

1. Offer.
2. Invitation to treat.
3. Acceptance.
4. Consideration.
5. Intention to create legal relations.
6. Form.
7. Capacity.
8. Terms and conditions.

(c) One too many times we walk into stores and purchase either good or a service and we are

then handed a receipt, which will, more times than not have a reading that says *''Terms &*

Conditions apply''. The question that is prevalent amongst those lay at law is; what is the

difference between the two; a term and a condition.

A Condition of a contract is one that will normally go to the core and/or root of the contract, which if breached has the potential to terminate the contract.

A Warranty on the other hand is a minor term of a contract. The breach of the foregoing entitles the injured Party to the continued performance of the contract.

Going by the above, it would appear that the difference between a Condition and a Warranty is that the breach of the former entitles the aggrieved Party to the repudiation of the contract, whereas breach of the latter merely entitles the aggrieved Party to claim for damages, with the option of the continued performance of the contract.

SOLUTION FOUR

a) Duties of employee

- Obedience. ...
- Dealing honestly with the **employer**. ...
- Working with reasonable care and skill. ...
- Not disclosing information to others. ...
- Disclosing any possible conflict of interest. ...
- Caring for the **employer's** property, equipment, and facilities.

Any of the 3 above

Duties of Employer

- Remunerate employee
- Indemnify employee
- Make the workplace safe.
- Prevent risks to health.
- Ensure that plant and machinery is safe to use.
- Ensure safe working practices are set up and followed.
- Make sure that all materials are handled, stored and used safely.
- Provide adequate first aid facilities.
- Any of the 2 above

(b) **Wrongful dismissal** is a claim based in contract law and it essentially the common law action for breach of contract, and **unfair dismissal** is a statutory construction which aims to ensure that employers do not dismiss employees without a demonstrable reason and utilize a fair procedure in any.

(c) A situation in which a reasonable person may assume **agency** agreement exists when it does not. For example, if a person or company allows another person or company to use proprietary letterhead to send out correspondence, **agency by estoppel** may exist.

(d) *Vicarious liability* is a legal doctrine that assigns *liability* for an injury to a person who did not cause the injury but who has a particular legal relationship to the person who did act negligently. It is also referred to as imputed Negligence.

SOLUTION FOUR

(a) **Compulsory liquidation (by court order)**

He needs to petition the court for Compulsory liquidation. This process starts with an application to the court alleging that one or more of the required grounds exist. The application may be brought by the company or a majority of its directors, or by the Registrar of Companies, or by a creditor. Applications by creditors are by far the most important and common. In this case, the company is in debt and is now trading in drugs and beyond its object clause.

- The company is now indulging on illegality
- The Company is unable to pay its debt
- It is just and equitable that the company be wound up

(b) A company may, unless its articles provide otherwise, by special resolution alter its share capital as stated in the certificate of share capital by;

- Increasing its share capital by issuing new shares of such an amount as it considers expedient
- Consolidate and divide all of its share capital into shares of larger amounts than its existing shares
- Convert all or any of its paid up shares into stock and re-converting that stock into paid up shares
- Subdividing shares
- Cancelling non allotted shares
- Lodge with the registrar within 30 days' notice of such alteration

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 15 MARCH 2021

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

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

QUESTION ONE

Each of the following questions has only one (1) correct answer. Write the letter of the correct answer you have chosen in your answer booklet. Each question is allocated two (2) marks

1.1 Which one of the following is **NOT** a feature of a sole proprietorship?

A. The business is owned by two or more people

B. The owner works in the business but may be assisted by some workers or family members

C. It is the simplest type of business organization to set up

D. Sole traders are personally liable for all the debts of their business

(2 marks)

1.2 A factor that will influence the extent of centralization is:

A. The leaders of the public sector organizations may not be sufficiently accountable for their performance.

B. The public sector can ensure that everyone has the access to basic services such as health services and education.

C. Creation and protection of jobs in the economy

D. The geographical separation of different parts of the organization

(2 marks)

1.3 A Matrix structure is an organizational design that combines functional organization with project managers. Which of the following is **not** one of its key features?

A. Project department

B. Finance department

C. Marketing department

D. Production department

(2 marks)

1.4 Which of the following statement does **NOT** match Belbin's roles?

A. Suffer the present, enjoy the future

B. I was very interested in your point of view

C. In this job, you never stop learning

D. When the going gets tough, the tough get going

(2 marks)

1.5 Which of the following is **not** among the five (5) moral duties identified in the King report (1994)?

A. Courage

B. Care

C. Commitment

D. Compromise

(2 marks)

1.6 In what order do managers typically perform the managerial functions?

A. Organizing, Planning, controlling, Commanding and Co-coordinating

B. Organizing, Co-coordinating, Planning, Controlling and Commanding

C. Planning, organizing, Co-coordinating, Controlling and Planning

D. Planning, Organizing, Commanding, Co-coordinating and Controlling

(2 marks)

1.7 Which of the following characteristics is associated with a democratic leadership style?

A. Split power

B. A dictatorial leader

C. Centralization of authority

D. Answers A and B

(2 marks)

1.8 Transformational change is often carried out:

A. By middle managers

B. Top down

C. Bottom down

D. After extensive consultation

(2 marks)

1.9 Which of the following suggestion did Frederick Herzberg make?

A. Where there is evidence of poor motivation, such as low productivity, poor quality and strikes, management should not pay too much attention to factors such as pay and conditions.

B. There is an optimal level of arousal that will determine maximum performance

C. Anxiety concerning tests and exams does not automatically produce negative outcomes. Anxiety can enhance motivation and performance

D. Interest in learning increases the perceived competence of the student.

(2 marks)

1.10 What type of business organization has the following attributes: the assets belong to the organization, a floating charge over its assets, change in membership does not alter its existence, and members cannot transfer their interests to others:

A. A private limited company

B. A limited liability partnership

C. A general partnerships

D. A public limited company

(2 marks)
[Total: 20 Marks]

SECTION B

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

Then attempt any THREE (3) questions from the remaining four (4).

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

Most organizations need a healthy balance of fresh and existing talent. Internal and external recruitment both have a role to play. Using both wisely allows you to develop the best workforce for your company. The Human Resource manager (HR) needs to understand the organizational policy and advise management accordingly which best method to use for any job at any particular time while considering recruiting. This is the only way an organization can face the business environment competitively.

The labor market is becoming complex and external recruitment changes and just the best companies will be able to keep the performance of the process as it used to be in the past. Although financial motivation plays a key factor, top talents will continue to choose the best job opportunity, but they will widen the choice to the entire Globe, not just a country. This is a real recruitment challenge. The external sources from which job candidates may be recruited vary mainly according to three main factors: The condition of the labor market, the type of job opening to be filled, and political and legal pressure from inside and outside the organization.

Required:

(a) Explain the three main stages of job recruitment and selection process. (6 marks)

(b) Describe five (5) advantages of internal recruitment. (5 marks)

(c) The Human Resources Manager must consider the macro environment in which the business operates. As a strategic planning process, list six (6) external types of environmental analysis that one can use to identify threats and opportunities in the business environment. (9 marks)

[Total: 20 Marks]

QUESTION THREE

Mulenga intends to start a business but is not certain he can manage on his own due to lack of business skills. Mubita has suggested that he partners with someone to which he has agreed but, would like to know the meaning and purpose of the whole idea before he commits himself fully.

Required:

(a) Explain to Mulenga the purpose of a partnership.

(4 marks)

(b) Outline the six (6) features of a partnership to Mulenga.

(12 marks)

(c) Define the legal document in a partnership and how useful it will be to his business.

(4 marks)

[Total: 20 Marks]

QUESTION FOUR

Public Sector Organizations (PSO) may be statutory bodies, parastatals or government departments.

Required:

(a) Define a statutory body. (5 marks)

(b) Give three (3) examples of statutory bodies that are regulatory in nature. (3 marks)

(c) Explain the differences between ZESCO as a parastatal and OASIS Forum. (8 marks)

(d) What is the prime objective of parastatals in Zambia? (4 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Define and give an example of an external stakeholder. (8 marks)

(b) Describe the interests of stakeholder and the problems that may arise when their interests are ignored. (12 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Define a resource audit. (2 marks)

(b) What elements would you consider important as part of position audit or strategic review of a company? (9 marks)

(c) Describe any three (3) areas of corporate level objectives. (9 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5 SUGGESTED SOLUTIONS

SOLUTION ONE - MULTIPLE CHOICE SOLUTIONS

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

SOLUTION TWO

a) Explain the three main stages of job recruitment and selection process.

   i. *Defining the requirements*: this includes the preparation of job description, job specification and person specification

   ii. *Attracting applicants*: this involves advertising or notifying people about the job vacancy, and then receiving applications from individuals who are interested in the job.

   iii. *Selecting:* choosing the right candidate for the job from among the applicants.

b) Identify five (5) advantages of internal recruitment.

   i. -Cost effective

   ii. -Time saving on induction

   iii. -Improves Morals and Motivation of workforce

   iv. -Promotes career developments

   v. –It creates a good image for the company

c) The Human resources manager must consider the macro environment in which the business operates. As a strategic planning process, list down six (6) external elements you use to analyze the threats and opportunities in the business environment

   - Political analysis- A change in the strategy may be caused by an unexpected political crisis.
   - Economical analysis - economical changes such as economical depression or low product demand and consumer income.
   - Social and Culture analysis - a change in public attitudes and opinions might persuade an organization to alter its strategy
   - Technological analysis - Companies need to adapt to new technologies to continue to succeed in their business.
   - Ecological analysis – climate and weather conditions may change and force the company to reconsider the location or product diversifications.
   - Legal analysis – Major changes in the land laws can force the company to alter the operations. E.g. labor or employment laws

SOLUTION THREE

(a) The purpose of partnership is to combine or pool skills, experience, knowledge, finances or assets.

b) The outline of the six (6) main features of a partnership-

i. They can be formed by up to 20 partners
ii. Common among professionals
iii. Initial capital is contributed by each partner
iv. Partners manage and control the business
v. Each partner is entitled to be involved in the running of the business.
vi. By law, a partner does not have a legal existence as a separate entity

c) The document is called the partnership agreement (partnership deed) which sets out the purpose and objectives of business, the way profits will be shared between partners, the rights and obligation of each partner

SOLUTION FOUR

a) A Statutory body is an organization created through the act of parliament which provide for the establishment of new organization. Most of such bodies in Zambia are of regulatory in nature.
b) The three bodies that are regulatory in nature are: ERB, RDA, and CCPC.

c) The differences between ZESCO and OASIS Forum-

Zesco is a parastatal with a profit motive and is expected to make profits however their profit making objective should be within constraints or limit or that are set by government. Its main purpose is to provide members of the public with goods and services at reasonable prices. While oasis Forum is an independent voluntary association of people acting for some common purpose. They are mainly established to promote issues of public interest.

The prime objective of parastatals in Zambia is to look after the interest of the public

SOLUTION FIVE

a) External stakeholders are groups that do not have any direct involvement with the business but which never the less have an interest in what the business does. The may have different interests and concerns.
b) Examples of such stakeholders – government, interest groups, professional bodies
c) The following are the interests they defend and problems that may arise if they are ignored

External stakeholder	Interests to defend	Problems if their interests are ignored
Government	-Creation and protection of jobs in the economy -revenue from taxation of profits and incomes -profitable businesses are good for the economy	-Tax increase -more regulation -legal action for breaches of the law
Interest groups/pressure groups	-protection of the environment -protection of human rights -other interests	-adverse publicity through the media -direct action -sabotage -putting pressure on the government to take action
Professional bodies	-the ethical conduct of members -The reputation of the profession	Imposition of ethical standards -disciplinary action against members

SOLUTION SIX

a) The following are the importance of the following in position audit:

-Suppliers-provide resources that an organization needs such as trade schools, universities supply skilled human resources, telecom services and many more.

-Customers – justify the existence of an organization because they buy goods and services

-Competitive environment-managers need to consider the competitive environment when developing the business strategies and ways in which their organizations can compete successfully and achieve it's cooperate objectives.

b) Resource audit –is the part of the position audit that looks at the resources available to the organization, and their strengths and weaknesses

c) The following may be areas of corporate level objectives

-Make a profit and increase profits each year

-Grow the business by expanding into markets into countries, or into other areas of business

-Become the largest competitor in the market

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 17 MARCH 2021

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

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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. How can a business organization protect its computer from computer fraud?

A. Use adequate internal and external audit controls.
B. Employ many security guards who are computer literate
C. Install different pass words in all computers
D. Deploy ZICTA Officers to monitor computers

(2 marks)

1.2 System reports that identify customers who have exceeded their credit limit is an example of which type of control?

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

(2 marks)

1.3 Which one is a part of the computer's processing section?

A. RAM
B. ALU
C. HDD
D. Floppy Disk

(2 marks)

1.4 Which one of the following is NOT a characteristic of computer packages as compared to tailor-made software?

A. Cheaper
B. Will carry out precisely the procession you need
C. More reliable/less likely to contain bugs
D. Instantly available

(2 marks)

1.5 There are conveniently over ……. IT types of Security Controls

A. 5
B. 350
C. 200
D. 150

(2 marks)

1.6 Which of the following terms best defines the term consensus?

A. A fifty percent agreement to a decision by members
B. A unanimous agreement to a decision by almost all members
C. A unanimous agreement to a decision by all members
D. A seventy five percent agreement to a decision by members

(2 marks)

1.7 State two (2) features of an electronic mail

A. Read receipts can be requested and automatic validation can be done

B. Automatic validation checks can be done.

C. Read receipts can be validated

D. It saves time with ease of automation

(2 marks)

1.8 State one (1) example of the best mode of communication for a senior staff that is very busy but wishes to issue instructions to junior staff in an organization.

A. By using a letter or memo

B. By creating and using a closed group android app like WhatsApp, Telegram, etc.

C. By using a memo and a letter

D. By holding a meeting

(2 marks)

1.9 Which of the following statements best describes an informal letter?

A. A personal letter

B. A letter that you write to partners in business

C. A letter that you write to a colleague

D. A semi-formal letter

(2 marks)

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

A. Communication between employees at the same level
B. Communication between a supervisor and a general worker
C. Communication between the CEO in one company and the director in another
D. Communication between an employee in one department and another in a different department

(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 QUESTION)

You work as an Assistant Accountant for a Company that deals with petroleum products. The following figures give the average monthly fuel sales in liters for a number of filling station outlets over a period of six (6) months. The sales have been split into three main categories, namely, leaded, unleaded and diesel. Management at your company intends to use this information to make timely decisions which may benefit the organization.

	Category of fuel		
Month	**Leaded**	**Unleaded**	**Diesel**
July	70,000	105,000	35,000
August	73,000	104,000	10,000
September	63,000	102,000	09,000
October	65,000	195,000	09,000
November	46,000	100,000	05,000
December	65,000	105,000	04,000

Required:

(a) Draw a bar chart which can be presented to the company's shareholders as part of your appendix. (7 marks)

(b) State the three (3) types of bar charts that can be used in organization's. (3 marks)

(c) Explain any three (3) advantages of using graphic representation of data as one of the medium of communication. (6 marks)

(d) State two (2) disadvantages of visual communication. (4 marks)

[Total 20 Marks]

<u>QUESTION THREE</u>

Information used by organizations come from different sources. Business activities involve planning, controlling, transaction recording, performance measurement and decision making.

(a) With the aid of a diagram, explain what a functional organizational structure is and the common challenge this structure has? (6 marks)

(b) Decision Support System (DSS) are user-friendly and highly interactive.

Explain any two (2) fundamental components of DSS? (4 marks)

(c) The User requirements, Controls, User-friendliness, Documentation and Maintenance Support can be considered when choosing a suitable package.

Justify the statement and describe the five (5) factors listed in the statement.

(10 marks)

[Total: 20 Marks]

QUESTION FOUR

Enterprise Resource Planning (ERP) System support business operations. It is designed to integrate the key processes in an organisation so that a single system can serve the information needs of all functional areas.

(a) State any five (5) the benefits that may be realized from a successfully-implemented ERP system. (5 marks)

(b) Give three (3) disadvantages of using Batch processing method? (3 marks)

(c) Give five (5) reasons why Internet has become a dominant in business. (10 marks)

(d) Differentiate between Byte and Character (2 marks)

[Total: 20 Marks]

QUESTION FIVE

You are a supervisor in the accounts department of the organization that you work for. Recently, there had been several gassing attacks among different groups of society such as primary, secondary and higher learning institutions

Some of your members of staff and clients were also victims of this form of terrorism. Your supervisor requested you to carry out an investigation on the recent happenings specifically on what transpired when your premises was attacked by gassers and the effects on both individual people and the organization as a whole.

Your supervisor also advised that the following subheadings be used as part of your findings: The gassing incident, the effect of gassing on an individual and the effect of gassing on the organization's business.

Required:

Write a short formal report outlining particular gassing incidents at your work premises and effects on both the individual and the organization. (Create your own content guided by subheadings and information provided in the scenario above). **[Total: 20 Marks]**

QUESTION SIX

Your company has been making huge loses in the past three (3) quarters due to load shedding. As a result of this situation, you are unable to pay workers' salaries, rent and other bills such as water and electricity. You have decided to lay off some of the workers and auction some of the assets so that you can revive your business. You want to hold another meeting following the previous one where you had unfinished business you wish to discuss the way forward with your employees.

Required:

(a) Write an agenda for the meeting covering all the topics to be addressed in the meeting. (10 marks)

(b) Using three (3) reasons briefly explain why holding meetings is important in an organization. (6 marks)

(c) Briefly explain the following terms:

(i) Teleconferencing
(ii) Workshop

(4 marks)
[Total: 20 Marks]

END OF PAPER

C.A 1.6 SUGGESTED SOLUTIONS

SOLUTION ONE – MULTIPLE CHOICE

1.1. A
1.2. C
1.3. B
1.4 B

1.5 A

1.6 C

1.7 D

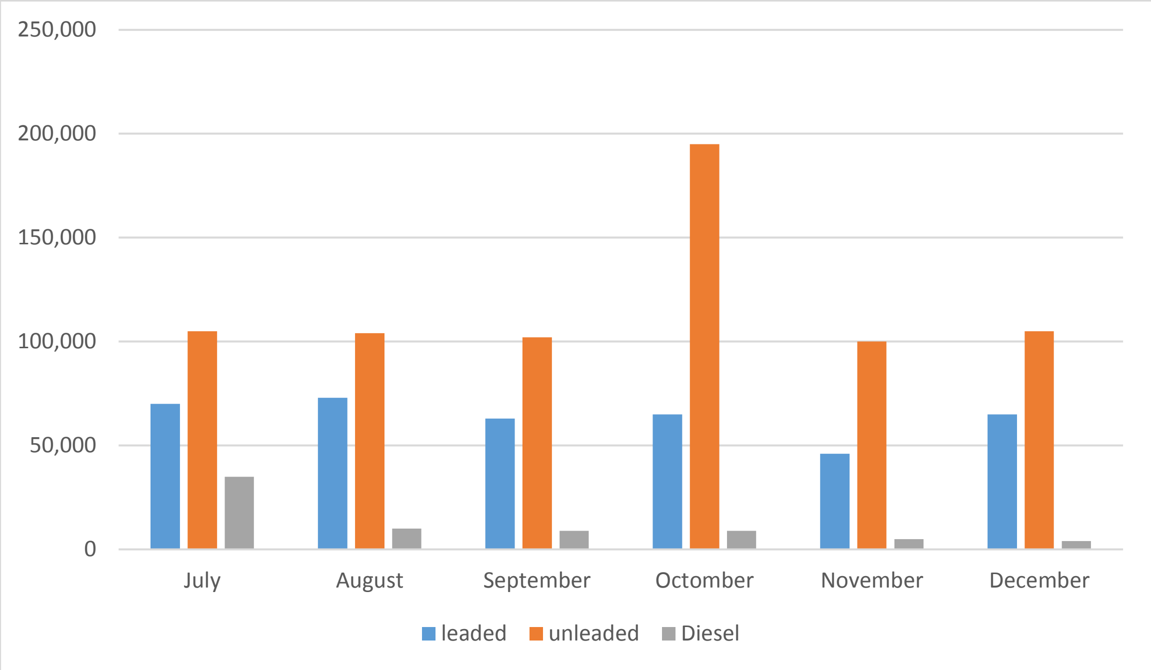
1.8 B

1.9 C

1.10 B

SOLUTION TWO

Fuel Sales For Mumbi & Company Over the Last Six Months of 2019



(a)

The types of bar charts are:

- Component bar chart
- Simple bar chart
- Multiple bar chart

(b)

Advantages of using graphic representation of data as one of the medium of communication:

(i) It crosses language barriers, for example, you do not a particular language to understand a picture or road sign.

(ii) It lasts long in the mind of the audience.

(iii) Messages that come through it are more easily noticed than those that come through other means.

(iv) It makes work easy since you do not have to spend so much effort and time to create a picture of what you are putting across through words. The audience can fill up all gaps that you leave.

(v) It is relatively easy to use.

(vi) It says much more than what words do, one picture is worth a thousand words it is said.

Disadvantages of Visual Communication

(i) It can be used to manipulate people.

(ii) It can take the audiences' attention away from the message.

(iii) If it takes the form of symbolism, it becomes prone to all kinds of interpretations since different things symbolise or mean different things in different cultures.

(iv) It might be expensive, for example the use of computers.

(v) It might not be easy to use.

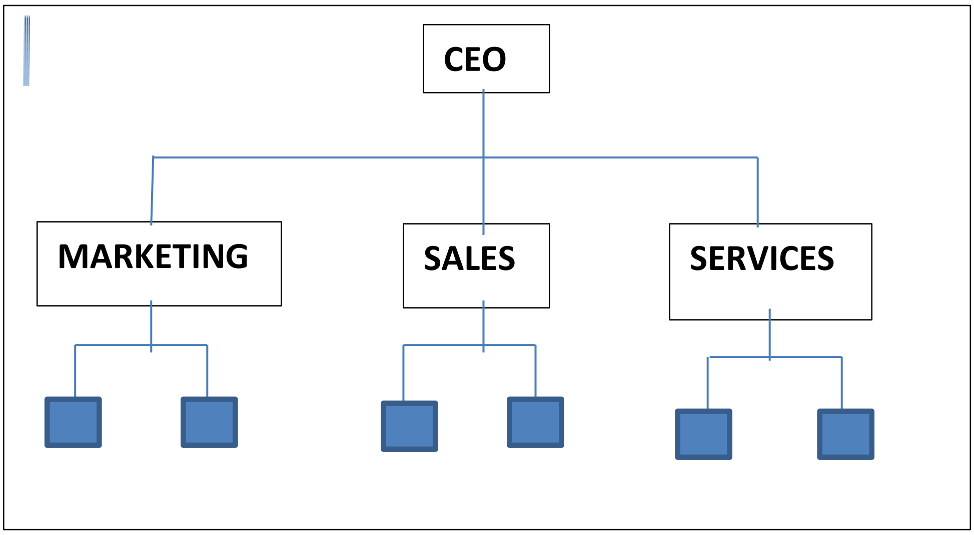
(vi) It might have destructive effects on a society or community.

SOLUTION THREE

(a.)

The functional structure is based on an organisation that is divided up into smaller groups with specific tasks or roles. Each department has a manager or director who answers to an executive a level up in the hierarchy who may oversee multiple departments.

The common challenge this structure has presents a lack of inter-departmental communication, with most issues and discussions taking place at the managerial level among individual departments



(b.)

a) Any two (2) functional component of DSS
   - **Database management system (DBMS)** – stores large amounts of data relevant to problems the DSS has been designed to tackle

   - **Model-based management system (MBMS)** – transforms data from the DBSM into information that is useful in decision making

   - **Dialogue generation and management system (DGMS)** – provides a user-friendly interface between the system and the managers who do not have extensive computer training.

(c)

a) Factors to consider when choosing a suitable package

- **User requirements** – Does the package fit the user's particular requirements. The package should ideally be suited to the user

- **Controls** – this should include passwords, data validation checks, spelling checks standard accounting controls, audit trail facilities
- **User friendliness** – is the package easy to use with menus and clear on-screen prompts for the keyboard user and giving a clear choice of what to do or provide on-screen help facilities
- **Documentation** – user manuals can be full of jargon and hard for a non-technical person to understand
- **Support and maintenance** - services the software supplier will provide in the event the user has difficulties with the package

SOLUTION FOUR

(a)

Benefits that may be realised from a successfully-implemented ERP system.

- Allowing access to the system to any individual with a terminal linked to the system's central server
- Decision support features, to assist management with decision making
- Extranet links to the major suppliers and customers, with electronic data interchange facilities for the automated transmission of documentation such as purchase orders and invoices
- Many of the inefficiencies in the way things are done can be removed. The company can adopted shipping and manufacturing work more closely together to get products produced
- An organisation can align itself to a single plan, so that all activities can be coordinated

Information and work practices can be standardised so that the terminology used is similar, no matter where you work in the company

(b)

Three (3) disadvantages of Batch processing

- The system is 'time driven' so it does not respond to rapid action
- Information is often out of date because the company waits to accumulate a batch of transactions before processing them
- Preparing batches results in duplication of effort

(c)

Some of the five (5) reasons why Internet has become a dominant architecture are:

i. **USE OF EMAILS**

large-scale integration AND EMAIL COMMUNICATION USE

ii. **GLOBAL COMMERCIAL MARKETS (E-COMMERCE)**

It is possible then to transmit data over longer distances and over lesser quality lines AND BUY AND SELL TO REMOTE MARKETS

iii. **CLOUD COMPUTING**

STORAGE OF DATA ON INTERNET SERVERS

iv. **SECURITY AND PRIVACY**

Encryption techniques can be readily applied to digital data and to analog data that have been digitalized.

v. **INTEGRATION**

By treating both analog and digital data digitally, all signals have the same form and can be treated similarly. Therefore, economics of scale and convenience can be achieved by integrating voice, video and digital data.

(d)

A BYTE is a group of eight bits. That is; a sequence of eight binary digitals that is operated on as unit. This is the smallest addressable location within the main storage of a computer built to byte specification.

CHARACTER means a decimal digit, alphabetical letter or special function or a CHARACTER is a set of binary digits.

SOLUTION FIVE

A REPORT ON GAS ATTACKS AT SK ENTREPRISE

1.0 INTRODUCTION

This report highlights the gas attacks and its effects at both individual and organizational level. Over the past few weeks, there had been several gas attacks among different group of society such as primary and secondary school including higher learning institutions.SK enterprise was also not an exception in the recent attacks.

It is for this reason that this report highlights some of the gassing attacks and its effects at both individual and organizational level.

The report covers procedures, findings, conclusions and recommendation as possible ways to resolve the challenge.

2.0 PROCEDURES

The procedures that were used to carry out the investigations were:

(a) Interview

(b) Questionnaires

(c) Observations

3.0 FINDINGS

After conducting investigations, the following facts were revealed:

(a) The gassing incident on the 22nd of February 2020.

(i) Information from the interviews from staff and clients revealed that 28 people were victims of gas attacks, being 19 females and 9 males.

(ii) Business started normally, but between 11; 30 hours and 14; 00 hours there was a sudden disruption of the normal activities.

(iii) Some staff and clients were choked, uncomfortable and others fainted. No deaths were recorded

(iv) Two areas of the work premises were affected, the eastern and the south western parts. However the situation was put under control by 14: 00 hours.

(b) Effects of gas attacks on individuals staff or clients

(i) There were health problems associated with shortness of breath, dizziness and weakness

(ii) Some staff and clients were psychologically affected

(iii) Most of them had great fear to be left out on their own

(c) Effects on the organization's business activities

Findings from the questionnaire and observations revealed the following effect:

(i) Loss of property and equipment

(ii) Loss of business from major clients
(iii) Company's reputation was threatened

4.0 CONCLUSIONS

From the above findings it can be concluded that the gas attacks affected 28 people. The effects at individual were both psychological and physical. At organizational level the effects were mostly loss of business, property equipment and threatened reputation.

5.0 RECOMMENDATIONS

It can be recommended that:

(i) Management offer some form of support to affected clients and staff
(ii) Intensify heavy security around the work premises
(iii) Engage in positive activities to counter the negative Public relations effects after the gas attacks.

Report prepared by;

Sender's signature

Sender's name and position

Date: ______________________

SOLUTION SIX (a)

<u>MEETING AGENDA</u>

1.0 Apologies (Opening remarks by the chairperson)
2.0 Minutes of the Previous
3.0 Matters arising from the previous minutes
4.0 Loss of Revenue due to Load-shedding
5.0 Non-Payment of Salaries
6.0 Payments of Utility Bills (Water, Electricity and Rentals)
7.0 Laying Off of Workers
8.0 Auctioning of some Company Assets
9.0 Any other business
10.0 Date of Next Meeting (Closing Remarks)

SOLUTION SIX (b)

- It helps in resolving problems
- Helps in making final decisions on important matters
- Help in disseminating information
- Helps in planning

SOLUTION SIX (c)

i. Teleconferencing is the method used to connect a small to large number of people in separate locations so that they can talk together or be part of the meeting over a phone connection.
ii. A workshop is a meeting at which people engage in intensive discussion and activities to develop or build their capacities or skills.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 17 MARCH 2021

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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.

1.2. How can a business organization protect its computer from computer fraud?

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G. Install different pass words in all computers
H. Deploy ZICTA Officers to monitor computers

(2 marks)

1.2 System reports that identify customers who have exceeded their credit limit is an example of which type of control?

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F. Procedural
G. Detective
H. Corrective

(2 marks)

1.6 Which one is a part of the computer's processing section?

E. RAM
F. ALU
G. HDD
H. Floppy Disk

(2 marks)

1.7 Which one of the following is NOT a characteristic of computer packages as compared to tailor-made software?

E. Cheaper
F. Will carry out precisely the procession you need
G. More reliable/less likely to contain bugs
H. Instantly available

(2 marks)

1.8 There are conveniently over ……. IT types of Security Controls

A. 5
B. 350
C. 200
D. 150

(2 marks)

1.7 Which of the following terms best defines the term consensus?

E. A fifty percent agreement to a decision by members
F. A unanimous agreement to a decision by almost all members
G. A unanimous agreement to a decision by all members
H. A seventy five percent agreement to a decision by members

(2 marks)

1.7 State two (2) features of an electronic mail

A. Read receipts can be requested and automatic validation can be done

B. Automatic validation checks can be done.

C. Read receipts can be validated

D. It saves time with ease of automation

(2 marks)

1.8 State one (1) example of the best mode of communication for a senior staff that is very busy but wishes to issue instructions to junior staff in an organization.

A. By using a letter or memo

B. By creating and using a closed group android app like WhatsApp, Telegram, etc.

C. By using a memo and a letter

D. By holding a meeting

(2 marks)

1.9 Which of the following statements best describes an informal letter?

A. A personal letter

B. A letter that you write to partners in business

C. A letter that you write to a colleague

D. A semi-formal letter

(2 mark
s)

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

E. Communication between employees at the same level
F. Communication between a supervisor and a general worker
G. Communication between the CEO in one company and the director in another
H. Communication between an employee in one department and another in a different department

(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 QUESTION)

You work as an Assistant Accountant for a Company that deals with petroleum products. The following figures give the average monthly fuel sales in liters for a number of filling station outlets over a period of six (6) months. The sales have been split into three main categories, namely, leaded, unleaded and diesel. Management at your company intends to use this information to make timely decisions which may benefit the organization.

	Category of fuel		
Month	**Leaded**	**Unleaded**	**Diesel**
July	70,000	105,000	35,000
August	73,000	104,000	10,000
September	63,000	102,000	09,000
October	65,000	195,000	09,000
November	46,000	100,000	05,000
December	65,000	105,000	04,000

Required:

(e) Draw a bar chart which can be presented to the company's shareholders as part of your appendix. (7 marks)

(f) State the three (3) types of bar charts that can be used in organization's. (3 marks)

(g) Explain any three (3) advantages of using graphic representation of data as one of the medium of communication. (6 marks)

(h) State two (2) disadvantages of visual communication. (4 marks)

[Total 20 Marks]

<u>QUESTION THREE</u>

Information used by organizations come from different sources. Business activities involve planning, controlling, transaction recording, performance measurement and decision making.

(a) With the aid of a diagram, explain what a functional organizational structure is and the common challenge this structure has? (6 marks)

(b) Decision Support System (DSS) are user-friendly and highly interactive.

Explain any two (2) fundamental components of DSS? (4 marks)

(c) The User requirements, Controls, User-friendliness, Documentation and Maintenance Support can be considered when choosing a suitable package.

Justify the statement and describe the five (5) factors listed in the statement.

(10 marks)

[Total: 20 Marks]

QUESTION FOUR

Enterprise Resource Planning (ERP) System support business operations. It is designed to integrate the key processes in an organisation so that a single system can serve the information needs of all functional areas.

(a) State any five (5) the benefits that may be realized from a successfully-implemented

ERP system. (5 marks)

(b) Give three (3) disadvantages of using Batch processing method? (3 marks)

(c) Give five (5) reasons why Internet has become a dominant in business. (10 marks)

(d) Differentiate between Byte and Character (2 marks)

[Total: 20 Marks]

QUESTION FIVE

You are a supervisor in the accounts department of the organization that you work for. Recently, there had been several gassing attacks among different groups of society such as primary, secondary and higher learning institutions

Some of your members of staff and clients were also victims of this form of terrorism. Your supervisor requested you to carry out an investigation on the recent happenings specifically on what transpired when your premises was attacked by gassers and the effects on both individual people and the organization as a whole.

Your supervisor also advised that the following subheadings be used as part of your findings: The gassing incident, the effect of gassing on an individual and the effect of gassing on the organization’s business.

Required:

Write a short formal report outlining particular gassing incidents at your work premises and effects on both the individual and the organization. (Create your own content guided by subheadings and information provided in the scenario above). **[Total: 20 Marks]**

QUESTION SIX

Your company has been making huge loses in the past three (3) quarters due to load shedding. As a result of this situation, you are unable to pay workers' salaries, rent and other bills such as water and electricity. You have decided to lay off some of the workers and auction some of the assets so that you can revive your business. You want to hold another meeting following the previous one where you had unfinished business you wish to discuss the way forward with your employees.

Required:

(a) Write an agenda for the meeting covering all the topics to be addressed in the meeting. (10 marks)

(b) Using three (3) reasons briefly explain why holding meetings is important in an organization. (6 marks)

(c) Briefly explain the following terms:

(iii) Teleconferencing
(iv) Workshop

(4 marks)
[Total: 20 Marks]

END OF PAPER

CHARTERED ACCOUNTANTS EXAMINATIONS

CA ZAMBIA - APPLICATION LEVEL

CA 2.1: FINANCIAL REPORTING

MONDAY 15 MARCH 2021

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.

<u>QUESTION ONE</u> (COMPULSORY)

Paul, a public company based in Lusaka, acquired 80% of Saul's equity share on 1 July 2015 and 25% of Apostle's equity shares, on 1 July 2016. Neither Saul nor Apostle issued new shares since acquisition. Paul Plc exercises significant influence in all financial and operating policies of Apostle limited.

Investments in Saul Plc, Apostle Plc and Equity investments were classified as financial assets through other comprehensive income in accordance with IFRS 9 *' Financial instruments'*. The investments are shown in the individual financial statements of Paul plc at cost, this is because changes in their respective fair values were insignificant. The details of the reserves and fair value uplift at acquisitions are as follows.

Investee	Reserves: Share premium	Retained earnings	Other reserves	Fair value uplift at acquisition
	Km	Km	Km	Km
Saul	140	120	40	90
Apostle	83	163	30	66

The summarized draft financial statements of the companies are :

STATEMENTS OF FINANCIAL POSITION AS AT 30 JUNE 2019

	Paul	*Saul*	*Apostle*
	Km	Km	Km
Non-current assets			
Property, plant and equipment	2,100	920	442
Intangible assets		350	27
Equity investments	2		
Investment in Saul	775	–	–
Investment in Apostle	203	–	–
	3,080	1,270	469
Current assets			
Inventories	520	1,460	214
Trade receivables	950	529	430
Cash and cash equivalents	900	710	45
	2,370	2,699	689
	5,450	**3, 969**	**1158**
Equity			
Share capital K1	1,000	400	220
Share premium	200	140	83
Retained earnings	1,128	809	263
Other reserves	142	70	62
	2,470	1,419	628

Non-current liabilities			
Deferred tax liability	1 100	250	36
Current liabilities			
Trade and other payables	1,880	2,300	494
	5,450	3,969	1,158

STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED 30 JUNE 2019

	Paul Km	Saul Km	Apostle Km
Revenue	4,480	4,100	6,560
Cost of sales	(2,590)	(2,840)	(6,020)
Gross profit	1,890	1,260	540
Distribution costs and administrative expenses	(720)	(290)	(296)
Finance costs	(50)	(80)	(24)
Dividend income (from Saul and Apostle)	260	-	-
Profit before tax	1,380	890	220
Income tax expense	(330)	(274)	(72)
PROFIT FOR THE YEAR	1,050	616	148
Other comprehensive income that will not be reclassified to profit or loss			
Gain on revaluation of property	30	7	12
Income tax expense relating to other comprehensive income	(9)	(2)	(4)
Other comprehensive income, net of tax	21	5	8
TOTAL COMPREHENSIVE INCOME	1,071	621	156
Extracts From Statement of Changes in Equity for the year to 30 June 2019:			
Dividends paid in the year	250	300	80
Retained earnings brought forward	328	493	195

Additional information:

1. Paul incurred K10 million directly attributable (due diligence) costs on acquisition of Saul. This amount was included in the carrying amount of the investment in Saul in Paul's own statement of financial position.
2. The fair value uplift on the subsidiary relates to property, plant and equipment being depreciated through cost of sales over a remaining useful life of 10 years from the acquisition date. The fair value uplift on the associate relates to a piece of land. The fair value uplift in the subsidiary was provisional pending receipt of the final valuations for these assets. These valuations were received on 1 January 2016 and they resulted in a further increase of K10 million in the fair value of the net assets at the date of acquisition. This increase does not affect the fair value of the non-controlling interest.

3. Trade receivables of Paul include K10 million and K6.6 million due from Saul and Apostle respectively; while Trade and other payables of Saul and Apostle include equivalent amounts payable to Paul.

4. Saul's intangible assets include K87 million of marketing expenditure incurred during the year ended 30 June 2019. The directors of Saul believe that these should be capitalised, and intend to amortise the balance over five years from 1 July 2019.

5. During the year Apostle sold goods to Paul for K20 million. These goods were sold at a mark-up on cost of 25%. At 30 June 2019 Paul still held all of these goods in its inventories.

6. During the year ended 30 June 2019 Saul sold goods to Paul for K1,300 million. The company makes a profit of 30% on the selling price. K140 million of these goods were held by Paul on 30 June 2019 (K60 million on 30 June 2018).

7. Annual impairment tests have indicated impairment losses of K100 million relating to the recognised goodwill of Saul including 25% in the current year. The Paul Group recognises impairment losses on goodwill in cost of sales. However, at 30 June 2019, the impairment of goodwill had reversed and goodwill was valued at K123 million above its original value. The reversal of impairment loss on goodwill has not yet been accounted for.

8. Group policy is to measure non-controlling interests at acquisition at fair value. The fair value of the non-controlling interests on 1 July 2015 was calculated as K288 million based on the market value of an equity share in Saul.

9. An impairment test at 30 June 2018 indicated impairment losses of K200 million relating to the investment in Apostle. No impairment losses in the current year is necessary in Apostle.

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

Required:

(a) Prepare the statement of profit or loss and other comprehensive income for the year ended 30 June 2019 for the Paul Group and a statement of financial position at that date**.** (36 marks)

(b) Your Chief Financial Officer has asked for an explanation of why it is necessary to invest staff time in preparing a set of consolidated financial statements as well as those of the individual companies of the group. As a Trainee Accountant Write a memo to her explaining the main advantages. (4 marks)

[Total: 40 Marks]

SECTION B

Attempt any three (3) questions in this section

QUESTION TWO

Ubuntu Ltd, a listed chemical processing company based in Kawambwa, prepared this draft statement of financial position as at 31 August 2019. The company prepares its financial statements in accordance with International Financial reporting Standards (IFRSs). On subsequent examination of the books and records, the Chief Financial Officer prepared a list of issues which he believes may require amendments to the draft statement presented.

Ubuntu Ltd
Statement of Financial Position as at 31 August, 2019

		K000	**K000**
Non-current assets			
Property, Plant & Equipment			1,020,000
Investment properties			100,000
Equity investments			360,000
			1,480,000
Current assets			
Inventory			65,000
Trade receivables			100,000
Cash & bank			60,000
			225,000
			1,705,000
Equity:			
Equity share capital			580,000
Retained Earnings:	Balance 1 September 2018	375,000	
	Profit for year	95,000	
	Dividend declared	(30,000)	
			440,000
Other components of equity: Balance 1 September 2018		128,000	
Other comprehensive income for the year		35,000	
			163,000
			1,183,000
Non-current liabilities			
lease obligations			175,000
5% Loan Notes-Repayable 2023			150,000
			325,000
Current liabilities			
Trade payables			95,000
Finance lease obligations			35,000

Provision for warranty claim	12,000
Current tax	25,000
Final dividend due	30,000
	197,000
Total equity & liabilities	**1,705,000**

The following notes are relevant:

(i) Property, Plant and Equipment are carried after charging depreciation for the year. On 31 August 2019, a piece of property, carried at K100 million, was revalued to K80 million. This revaluation has not been accounted for. The revaluation reserve (included with other components of equity) had a balance of K12 million due to previous revaluations of this property.

(ii) The equity investments had a fair value of K380 million at 31 August 2019, which has not yet been incorporated into the financial statements. Ubuntu has taken a decision to take all fair value gains and losses on equity investments to "other comprehensive income" as permitted by ***IFRS 9 - Financial Instruments.***

(iii) The company sold plant on 5 August 2019. The plant sold had a carrying value of K45 million at the date of sale, it was sold for an agreed price of K39 million. No cash has yet been received in respect of this sale, as a 44 day credit period was agreed with the buyer. No entry has been made to record this transaction.

(iv) Ubuntu holds its investment properties at fair value, as allowed by IAS 40 Investment properties. A professionally qualified valuer based in Lusaka valued the investment properties at the year end at K200 million. No adjustments have been made to the figure in the ledger since the previous year end.

(v) The 5% loan notes was issued on 1 September 2018 for cash proceeds of K150 million, and was correctly recorded. The redemption terms of these loan notes are such that the effective rate of interest to maturity was 6.5%. The only other entry made in respect of the loan notes was the payment of K7.5 million interest on the due date 31 August 2019.

(vi) The net realisable value of the closing inventories was K66 million, no adjustments have been made. The inventory figure in the statement of financial position represents the cost figure.

(vii) Ubuntu Ltd offers a 12-month warranty on all goods sold to retail customers. A provision is maintained for the expected cost of honouring this warranty. This has not been updated as at 31 August 2019. Ubuntu sold 40,000 units of its relevant product during the year, all of which qualify for warranty. It expects that 10% of these would need minor repairs at an average cost of K500 each, and 6% would need major repairs at a cost of K5,000 each. All costs are expected to be incurred within 12 months.

(viii) During the year to 31 August, 2019 the company made a one for five rights issue at a price of K2.25 per share. The rights issue was fully taken up and has been correctly accounted for.

Required:

(a) Prepare a schedule showing any corrections required to the profit and other comprehensive income for the year. (8 marks)

(b) Redraft the Statement of Financial Position at 31 August 2019 taking the above into account. (12 marks)

[Total: 20 Marks]

QUESTION THREE

(a) The objective of IAS 37 Provisions, Contingent liabilities and Contingent assets is to ensure appropriate recognition criteria and measurement bases are applied to provisions, contingent liabilities and contingent assets. The standard also ensures that sufficient information is disclosed in the notes to financial statements to enable users understand the nature, timing and amounts.

Mudala Co is a steel manufacturing and operates three regions in Zambia, South, North and East. The company wishes to close down a South regional office due to slow down in activity in the region. The decision was communicated to employees stationed at the regional office and intention resolved at one of its board meetings. As a result of the closure;

- 100 employees would require retraining at a cost of K2 million so as to be ready for deployment to North and East regional offices.
- 20 employees will be made redundant and total cost of these redundancies would be K5 million.
- K1.2 million is to be spend on marketing materials directing customers to locations of remaining offices.

Required:

(i) State the general conditions to be satisfied for provisions to be recognized in an entity's financial statements. (3 marks)

(ii) Explain the accounting treatment for Mudala Co. events above for the year ended 31 March 2020. (5 marks)

(b) Musala Plc. made a profit for the year ended 31 December 2019 of K1.95 million (profit was K1.35 million for the year ended 31 December 2018). Musala Plc.'s ordinary shares capital on 1 January 2019 comprised of 18 million K1 shares.

On 1 April 2019, Musala issued 4.2 million new shares and a further 6 million new shares on 1 October 2019. Both issues were made at full market price.

Additionally, Musala had in issue a convertible loan note of K50 million on 1 January 2019. The loan note had an effective interest rate of 6%. The loan note will mature in 2021 and will be redeemable at par or converted to equity shares on the basis of 75 shares for every K100 of loan note at the holder's option. The loan interest is tax deductible at 25%.

Required:

(i) Calculate basic earnings per share for the year ended 31 December 2019. (3 marks)

(ii) Calculate the diluted earnings per share for the year ended 31 December 2019. (4 marks)

(c) State two (2) practices that an entity out to engage in, in order to improve the qualitative characteristic of 'comparability' in accordance with the conceptual framework for financial reporting. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) IFRS 15 Revenue from Contracts with customers sets out rules for the recognition of revenue based on transfer of control to the customer from the entity supplying the goods or services.

The following matters have arisen for Mulata Ltd for which its Chief Executive Officer (CEO) seeks your advise on appropriate accounting treatment.

(i) Mulata Ltd sold goods on behalf of PG Co for K500,000 cash. Mulata Ltd had no discretion to set price, was entitled to commission of 10% and did not bear any inventory risk before or after goods were delivered to PG Co. The whole sale has been included in Mulata Ltd sales and cash while a K300 has been remitted to PG Co and recorded in cost of sales. (4 marks)

(ii) Mulata Ltd entered into another contract with a customer to sell machinery on 1 April 2019 and control of this machinery moved to customer on the same date. The transaction price was K5 million to be paid on 31 March 2021. Mulata's cost of capital is 8%.

The draft financial statements of Mulata Ltd for the year ended 31 March 2020 include revenue of K5 million from this transaction and a receivable of the same amount. (5 marks)

(iii) Mulata Ltd sold some equipment for K20 million on 31 December 2019. As part of the sale agreement, Mulata is committed to ongoing servicing of this product until 31 December 2023 (that is, 4 years from the date of sale). The value of this service has been included in the selling price of K20 million. The estimated cost to Mulata Ltd of servicing the equipment is K400,000 per annum and Mulata's normal gross profit margin on this type of servicing is 20%. Ignore discounting.

Mulata Ltd has recognized revenue of K20 million for the year ended 31 March 2020. (5 marks)

(iv) On 1 April 2019, Mulata Ltd sold maturing inventory to a bank for K900,000. The estimated fair value of the goods on that date was K1,500,000, which is expected to keep rising. Mulata Ltd keeps the goods on its premises and has the option to repurchase the goods on 31 March 2021 for K1,089,000.

Mulata Ltd has recognized a sale of K900,000 in its financial statements for the year ended 31 March 2020. (4 marks)

Required: evaluate the appropriateness of the treatment adopted by Mulata Plc for the items (i) – (iv) above in its financial statements for the year ended 31 March 2020.

(v) Briefly explain the accounting treatment of interest earned from temporary investment of borrowings meant for financing the construction of a qualifying asset in accordance with IAS 23 borrowing costs. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions relating to providing resources to the entity.

You are the financial analyst of Luv Ltd a leading retail trading company based in Lusaka, which prepares financial statements in accordance with International Financial Reporting Standards (IFRSs). Luv Ltd would like to acquire (100% of) a viable private company. It has obtained the following draft financial statements for two companies, Peace Ltd and Humble Ltd. They operate in the same industry and their managements have indicated that they would be receptive to a takeover.

Statement of profit or loss for the year ended 31 March 2020

	Peace Ltd	Humble Ltd
	K'000	**K'000**
Revenue	12,000	20,500
Cost of sales	(10,500)	(18,000)
Gross profit	1,500	2,500
Operating expenses	(240)	(500)
Finance costs	(210)	(600)
Profit before tax	1,050	1,400
Income tax expense	(150)	(400)
Profit for the year	900	1,000

Statements of financial position as at 31 March 2020

Assets	**Peace Ltd**	**Humble Ltd**
Non-current assets	**K'000**	**K'000**
Freehold factory (note(i)	4,400	-
Owned plant (note (ii))	5,000	2,200
Leased plant (note (ii))	-	5,300
	9,400	7,500
Current assets		
Inventory	2,000	3,600
Trade receivables	2,400	3,700
Bank	600	-
	5,000	7,300
Total assets	**14,400**	**14,800**
Equity and liabilities		
Equity shares of K1 each	2,000	2,000
Property revaluation reserve	900	-
Retained earnings	2,600	800
	5,500	2,800
Non-current liabilities		
lease obligations (note (iii))	-	3,200
7% loan notes	3,000	-
10% loan notes	-	3,000
Deferred tax	600	100
Government grants	1,200	-
	4,800	6,300
Current liabilities		
Bank overdraft	-	1,200

Trade payables	3,100	3,800
Government grants	400	-
lease obligations (note (iii))	-	500
Taxation	600	200
	4,100	5,700
Total equity and liabilities	**14,400**	**14,800**

Additional information

i) Both companies operate from same premises.

ii) Additional details of the two companies' plant are:

	Peace Ltd K'000	Humble Ltd K'000
Owned plant – Historical cost	8,000	10,000
Leased plant – original fair value	-	7,500

There were no disposals of plant during the year by either company.

i) The interest rate implicit within Humble Ltd's leases is 7.5% per annum. For the purpose of calculating ROCE and gearing, all lease obligations are treated as long-term interest bearing borrowings.
ii) Both companies have been in business for more than ten years.
iii) Dividends paid during the year by Peace and Humble amounted to K250,000 and K700,000 respectively.

Required:

(a) Identify any five (5) users of Financial Statements that preparers of these statements should normally have in mind, and state two (2) benefits each of these identified users derive from ratio analysis. (5 marks)

(b) Assess the relative financial performance and financial position of Peace Ltd and Humble Ltd for the year ended 31 March 2020 to inform the directors of Luv Ltd in their acquisition decision. Your analysis should focus on profitability, liquidity and gearing. (15 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.1 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) PAUL GROUP
CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2019

Km ***Non-current assets***			
Property, plant and equipment (2,100 + 920 + (W10) 60)			3,080
Equity investments			2
Goodwill (W2)			153
Other intangible assets (350 – (W9) 87)			263
Investment in associate (W3)			35
			3,534
Current assets			
Inventories (520 + 1,460 – (W8) 42)	1,938		
Trade receivables (950 + 529-10)	1,469		
Cash and cash equivalents (900 + 710)	1,610		
		5,016	
		8,550	
Equity attributable to owners of the parent			
Share capital K1		1,000	
Share premium		200	
Retained earnings (W4)		1,278	
Other reserves (W5)		174	
		2,652	
Non-controlling interests (W6)		378	
		3,030	
Non-current liabilities			
Deferred tax liability (1,100 + 250)		1, 350	
Current liabilities			
Trade and other payables (1,880 + 2,300 -10)		4, 170	
		8,550	

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 30 JUNE 2019

	Km
Revenue (4,480 + 4,100 – (W8) 1,300)	7,280
Cost of sales (2,590 + 2,840 – (W8) 1,300 + (W8) 24 + (W10) 10 + 25)	(4,189)
Gross profit	3,091
Distribution costs and administrative expenses (720 + 290 + (W9) 87)	(1,097)
Finance costs (50 + 80)	(130)
Share of profit of associate (148 x 25% -1)	36
Profit before tax	1,900
Income tax expense (330 + 274)	(604)

PROFIT FOR THE YEAR		1,296
Other comprehensive income that will not be reclassified to profit or loss:		
Gain on revaluation of property (30 + 7)		37
Share of other comprehensive income of associate (8 x 25%)		2
Income tax expense relating to other comprehensive income (9 + 2)		(11)
Other comprehensive income for the year, net of tax		28
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		1,324
Profit attributable to: Owners of the parent (1,296 – 94)		1,202
Non-controlling interests (W7)	94	
		1,296
Total comprehensive income attributable to:		
Owners of the parent (1,324 – 95)	1,229	
Non-controlling interests (W7)	95	
		1,324

(b)

To: Chie Financial Officer

From: Trainee Accountant

Date: 10 June 2020

Subject: Consolidated financial statements

The idea behind consolidated financial statements is to show a group of companies as a *single economic entity*, which gives a more accurate representation of the performance of the whole group. This is for several reasons:

(i) The separate financial statements of the parent entity only show dividend income from the subsidiary and therefore do not accurately represent the profits made by the group which include *all* of the profits made by the subsidiary less amounts due to non-controlling shareholders

(ii) Trading between group companies is reflected in the sales and purchases in each group company's profit or loss section of the statement of comprehensive income, but from the point of view of the whole group is artificial because it is within the group. This is eliminated on consolidation, therefore showing a true picture of trading with third parties.

(iii) The separate financial statements of the parent normally show the investment made in the subsidiary at its cost rather than the true picture of the accounting valuation of assets and liabilities at the year end under the group's control.

(iv) The group financial statements also show the amount of money paid attributable to purchased goodwill and whether this has subsequently fallen in value.

(v) Without the consolidated financial statements, it is impossible for the shareholders of the parent entity to see the full picture of their investment in the whole group and make accurate investment decisions.

(vi) Additionally, it is a requirement of IFRS 10 *Consolidated Financial Statements* that consolidated financial statements are prepared where appropriate for companies who wish to state that their financial statements are prepared in accordance with International Financial Reporting Standards.

Workings

1.**Group structure**

Controlling interest 80%, and NCI 20%

Significant influence 25%

2. Goodwill

		Km	Km
Consideration transferred			765
Fair value of non-controlling interests			288
Fair value of net assets acquired:			
Share capital	400		
Share premium	140		
Retained earnings at acq'n	120		
Other Resesrves at acq'n	40		
Fair value uplift (90 +10**)	100		
Total FV of net assets		(800)	
		253	
Less cumulative impairment losses		(100)	
		153	

**Further fair value uplift (K10 million) happened within the measurement period as per IFRS 3, business combinations. Therefore they should be taken into account when measuring goodwill.

NOTE: always remember that impairment recorded against goodwill can never be reversed.

3 *Investment in associate*	Km
Cost of associate	203
Impairment losses	(200)
Share of post-acquisition retained reserves [(263 + 62 – 163 – 30) X 25%]	33

Share of URP	(1)
	35

4 *Consolidated retained earnings c/f*

		Paul	*Saul*	*Apostle*
		Km	Km	Km
Per question		1,128	809	263
PUP (w9)/ (W8)		(1)	(42)	
Start up costs (W9)			(87)	
Depreciation on FV adjustment (W10)			(40)	(0)
Less pre-acquisition			(120)	(163)
Due diligence costs	(10)		520	100
Impairment losses in associate	(200)			
Group share:				
Saul [520 x 80%]		416		
Apostle [100 x 25%]		25		
Less impairment losses on goodwill:				
Saul [80% × 100] (W2)		(80)		
		1,278		

5 *Consolidated other reserves c/f*

	Paul	*Saul*	*Apostle*
	Km	Km	Km
Per question	142	70	62
Less pre-acquisition		(40)	(30)
		30	32
Group share:			
Saul [30 x 80%]	24		
Apostle [32 x 25%]	8		
	174		

6 ***Non-controlling interests (SOFP)***

At acquisition (W2)	288	
Share of post acquisition retained earnings [520 (W4) x20%]	104	
Share of post acquisition other reserves [30 (W5) x 20%]	6	
Less: impairment losses on goodwill [20% × 100] (W2)	(20)	
		278

7 Non-controlling interests (statement of profit or loss and other comprehensive income)

PFY
Km

Saul's PFY/TCI per question	616
Less impairment losses	(25)
Less PUP (W8)	(24)
Less start-up costs (W9)	(87)
Less FV depreciation (W10)	

Less fair value depreciation (W10)	(10)
Adjusted profit for the year	470
Profit for the year attributable to NCI 20%x470	94
NCI's share of OCI 20%x5	1
Total CI attributable to NCI	95

x NCI share 20% = 94 95

8 *Intragroup trading*

Cancel intragroup sales and purchases:

DEBIT Revenue K1,300,000

CREDIT Cost of sales K1,300,000

Unrealised profit (Saul to Paul):

	Km
In opening inventories (60 x 30%)	18
In closing inventories (140 x 30%)	42
Increase (to cost of sales)	24

9 *Start-up costs*

IAS 38 *Intangible assets* states that training costs should all be written off as an expense as incurred as no intangible asset is created that can be recognised (the benefits cannot be sufficiently distinguished from internally generated goodwill, which is not recognised).

10 *Fair value – Saul*

Fair value gain at acquisition	(90+10)	100
Accum FV depreciation	100/10X4	(40)
Net fair value adjustment to PPE – gain		60

11. Unrealized profit in the between Paul and Apostle

K20, 000, 000 x (25/120 %) x 25% =K1 million: Debit Cost of sales of Apostle/Group retained earnings and credit Group inventories (as Paul holds inventories, i.e. upstream transaction).

SOLUTION TWO

UBUNTU PLC

a) Schedule of changes to profit and OCI for the year

		Profit for year	OCI for year
		K000	K000
Figures per draft financial statements		95,000	35,000
Fair value gain on investment properties W5		100,000	
Revaluation of property	W1	(8,000)	(12,000)
Loss on disposal of plant	W1	(6,000)	
Gain in fair value of equity investments	W2		20,000
Additional finance cost	W3	(2,250)	
Additional warranty provision	W4	(2,000)	-
Adjusted figures		**176,750**	**43,000**

b) Ubuntu Ltd Statement of Financial Position as at 31 August, 2019

	K000		K000
Non-current assets			
Property, Plant & Equipment (600,000+420,000-45,000W1-20,000 W1)			955,000
Investment properties			200,000
Equity investments (360,000+20,000 W2)			380,000
			1,535,000
Current assets			
Inventory			65,000
Trade receivables (100,000+39,000 W1)			139,000
Cash & bank			60,000
			264,000
			1,799,000
Equity:			
Equity share capital			580,000
Retained Earnings: Balance 1 September 2018	375,000		
Profit for year	176,750		
Dividend declared	(30,000)		
		521,750	
Other components of equity: Balance 1 September 2018	128,000		
Other comprehensive income for the year	43,000		
		171,000	
			1,272,750
Non-current liabilities			
lease obligations			175,000

5% debenture 2023 (150,000+2,250 W3)	152,250	
		327,250
Current liabilities		
Trade payables		95,000
lease obligations		35,000
Provision for warranty claim (12,000+ 2,000 W4)		14,000
Current tax		25,000
Final dividend due		30,000
	199,000	
Total equity & liabilities		**1,799,000**

Workings:

W1 – Property, Plant & Equipment
This piece of property should be revalued downwards by K20 million (100-80). A downward revaluation in an IAS 16 (Property Plant & Equipment) asset should be charged to the revaluation reserve (and OCI) to the extent that a balance exists in that reserve relating to the same asset. Here, this amount is K12 million. Any further revaluation loss should be charged to profit or loss. The extra K8 million of loss should be so charged.

The Plant & Equipment transaction should derecognised. Hence a loss on disposal of K6 million (39-45) will be recorded in profit or loss. K45 million will be derecognized from PPE, and a receivable of K39 million recorded in current assets since it was sold for a credit period of 44 days.

W2 – Equity Investments
Under IFRS 9, equity investments should be classified as "Fair Value" financial instruments, and remeasured to fair value at each reporting date. Any resulting gains or losses are taken to profit or loss unless the entity makes an irrevocable election to take them to OCI. The decision has been made by Ubuntu, hence the gain in value of K20 million (380 – 360) should be taken to OCI as well as being reflected in the carrying value of the equity investments.

W3 – Debenture
Under IFRS 9 the amortised cost method is appropriate for this liability as there is no evidence to suggest the company is treating the liability as a trading instrument. Hence the annual finance charge should reflect the effective rate to maturity rather than the coupon rate. The correct finance cost should therefore be K150m *6.5% = K9.75 million instead of the recorded K7.5 million. The additional K2.25 million (9.75 – 7.5) should be charged as a finance cost to profit or loss and accrued as an additional current liability.

W4 – Warranty provision

The current liability for warranty provision needs to be updated at each reporting date to reflect best estimates available at that date. At 31 Augut 2019 best estimates suggest a provision of K14 million is required, calculated as follows:

	K
Minor repairs: (4,000 * K500)	2 million
Major repairs: (2,400 * K50,000)	12 million

As the existing provision is recorded at K12 million, an additional charge of K2 million must be made to bring the provision up to the required K14 million. This should be charged to profit or loss, and added to the existing provision.

W5 – Investment properties

As per IAS 40, the fair value gain must be reported in profit or loss account and the investment property be fair value uplifted by K100 million. Therefore debit investment property and Profit or loss/Retained earnings by k100 million.

W6 – Inventory

As per IAS 2, inventories, no adjustment is needed. Inventories are measured at lower of cost and NRV.

W7 – Rights Issue

No adjustment is needed since it was correctly accounted for. Unless you were requested to prepare a statement of changes in equity.

SOLUTION THREE

a) i) A provision should be recognized when:

- An entity has a present obligation (legal or constructive) as a result of a past event
- It is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and
- A reliable estimate can be made of the amount of the obligation.
- Note. If any of these conditions is not met, no provision may be recognized

ii) firstly, this is restructuring provision which can be made if the required specific criteria per IAS 37 is met. The specific criteria in Mudala Plc has been met through approval of plan by a board meeting and communication of intended plan to those affected at the target regional office. A provision for operations coming to an end would be required as follows:

Redundancy costs of 20 employees K5,000,000

The remaining costs of retraining and marketing relate to continuing activities and will require expensing as incurred for the year under review and not form part of the provision.

b) i) Basic EPS

= Earnings/weighted average no of shares

=1,950,000/[(1,800,000 x 12/12) + (4,200,000 x 9/12) + (6,000,000 x 3/12)

=1,950,000/22,650,000

=8.61 ngwee or K0.086

ii) Diluted EPS

conversion of loan to shares K50,000,000 x 75 shares/K100 = 37,500,000 shares

DEPS = 1,950,000 + (75% x [6% x K50,000,000])/22,650,00 + 37,500,000

=1,950,000 + 2,250,000/60, 150, 000

=4,200,000/60, 150, 000

K0.07 or 6.98 ngwee.

c)

- Restating the financial statements of previous years when there has been a change of accounting policy
- Prohibiting changes of accounting policy unless required by an IFRS or to give more relevant and reliable information
- Disclosing discontinued operations in financial statements

SOLUTION FOUR

a)

i) This is agency sales. IFRS 15 requires Mulata Ltd to only recognize the commission as part of its revenue. Therefore, a k50,000 (10% of K500,000) need to remain in sales and cash. As for the balance of K450,000, K300,000 has been remitted to PG Co and so the K150,000 needs to be recognized as a liability that Mutal Ltd owes PG Co. additionally, the K300 to be removed from cost of sales to reflect the fact that Mutala Ltd is merely acting as an agent. This is evident by the non bearance of inventory risk, entitlement to commission, lack of discretion to set price hence does not possess any control over the goods.

Note: Accept double entry form of answers as follows:

For the total proceeds, Mulata made the following entries:

Dr cash	K500,000	
Cr sales		K500,000

For the payment of K300,000 to PG, the following entries were made:

Dr cost of sales	K300,000	
Cr Bank		K300,000

Therefore, full correcting entries are required as follows:

Dr revenue	K450,000	
Cr cost of sales		K300,000
Cr payable (PG)		K150,000

ii) Mulata Ltd. does not need to recognize the K5 million for revenue. IFRS 15 requires such contract values to be discounted to present value for recognition. In short, they contain a financing component.

Therefore, the K5 million discounted for two years at a cost of capital of 8% gives K4,286,694.

Financial statement extracts would be as follows:

Profit and loss statement for year ended 31 March 2020

Revenue	4,286,694
Finance income (8% x 4,286,694)	342,936

Statement of financial position as at 31 March 2020

Current assets

Trade receivables (4,286,694 + 342,936)	4,629,630

iii) The accounting treatment currently applied is against guidance from IFRS 15.

The performance obligation has two components:

- Performance obligation satisfied at a point in time.
- Performance obligation satisfied over time.

The portion at a point in time is K18,000,000 (K20,000,000 – [100/80 x 400,000] x 4).

Therefore, the K2 million is the service value for four years, (500,000 annually)

As per IFRS 15 guidance, only the service value as at 31 March 2020 require inclusion in revenue at that date, hence K125,000 [500,000 x 3/12] to be included in revenue from the performance obligation over time.

This gives total revenue of K18,125,000 for the year ended 31 March 2020.

Additionally, a K500,000 to be deferred as current liability (12 months servicing value) and remaining total balance of K1,375,000 (2,000,000 – 500,000 – 125,000) to be deferred as non current liabilities.

Therefore, a total of K1,875,000 needs to be reversed from the recognized revenue.

iv) According to IFRS 15. The transaction has been wrongly recognized as a sale in the sense that:

- Control of the inventory did not move to the customer by the fact that Mulata Ltd kept goods on its premises and there are no indications it was a bill and hold arrangement.
- The sale was to a bank, indicating Mulata was merely seeking finance.
- The selling price of K900,000 was below the fair value of K1,500,000 hence lacking substance.
- The repurchase price of K1,089,000 was less than the fair value of K1,500,000.
- The selling price (received) was less than the repurchase price (paid) indicating payment is with interest.
- Therefore, this transaction in all cases qualifies to be treated as a loan of K900,000 with total interest of K189,000 over the two years working out to be finance at annual compound interest of 10%. For the year ended 31 March 2020, loan of K900,000 and interest of K90,000 to be recognized.

b) *IAS 23 borrowing costs* require that borrowing costs (i.e interest and other anxilliary costs incurred in connection with the borrowing of funds be capitalized. Additionally, if borrowed funds are temporarily invested, any interest earned from such investments should:

- Be used to reduce borrowing costs eligible for capitalization if the interest is earned within the qualifying period of capitalization.
- Be expensed if the interest is earned outside the qualifying period for capitalization.

SOLUTION FIVE

(a)

- **Identification of any five users of financial statements and their benefits from ratio analysis:**

(i) Shareholders

— To assess management performance.
— For investment decision making e.g. purchase or disposal of shares.
— Comparison of their return on investment with some benchmark.

(ii) Potential Investors

— For better yield identification compared with current market returns.
— To assess opportunity for acquisition of an entity for greater market share.

(iii) Lenders (providers of debt capital)

— To assess financial strength of a target company.
— To review exposure to financial risk through gearing.
— To ascertain whether or not an entity would be able to service current or increased debt.

(iv) Employees

— Ratios form a basis for higher pay negotiations.
— For assessment of results of their efforts.

(v) Management

— Uses ratios to compare their own performance with industry average.
— Ratios enable management identify areas of improvement.
— Uses results of ratio analysis to justify decisions on request for pay rise.

(vi) Suppliers

— Use ratios for their decisions to grant initial or further trade credit.
— Use ratios to assess whether or not an entity is a going concern.

(vi) Government and its agencies

— Use ratio analysis for statistical planning purposes.
— For assessment of tax revenue.

(vii) The Public

— Researchers and trade journalists use ratios for their various editorial needs.

- — Society may want to know corporate social responsibility and corporate citizenship of the firm.

(b) Assessment of the relative performance and financial position of Peace Ltd and

- Humble Ltd for the year ended 31 March 2020.

Appendix

Ratio	**Formula**	**Peace Ltd**	**Humble Ltd**
Gross profit margin	Gross Profit/Revenue	1,500/12,000*100 =12.5%	2,500/20,500*100 =12.2%
Operating profit margin	Profit before interest and tax/Revenue	1,260/12,000*100 =10.5%	2,000/20,500*100 =9.8%
ROCE	Profit before interest and tax/(Shareholders' fund + Long-term interest bearing borrowings)	1,260/(5,500+3,000)*100 =14.8%	2,000/(2,800+6,700)*100 =21%
Return on equity	Profit after Tax/Shareholders' funds	900/5,500*100 =16.4%	1,000/2,800*100 =35.7%

Pre-tax Return on equity	Profit before Tax/Shareholders' funds	1,050/5,500*100 =19.1%	1,400/2,800*100 =50%
Net assets turnover	Revenue /(Total Assets – Total liabilities)	12,000/5,500 =2.2 times	20,500/2,800 =7.3 times
Current ratio	Current assets/Current liabilities	5,000/4,100 =1.2:1	7,300/5,700 =1.3:1
Acid test ratio	(Currents assets - Inventory)/Current liabilities	(5,000-2,000)/4,100 =0.73:1	(7,3003,600)/5,700 =0.65:1
Interest cover	Profit before interest and tax/Interest	1,260/210 =6 times	2,000/600 =3.3 times
Closing inventory holding period	Closing inventory x 365 days Cost of sales	2,000 x 365 10,500 =70 days	3,600 x 365 18,000 =73 days
Trade receivables collection period	Trade receivables x 365 days Revenue	2,400 x 365 12,000 =73 days	3,700 x 365 20,500 =66 days
Trade payables payment period	Trade payables x 365 days Cost of sales	3,100 x 365 10,500 =108 days	3,800 x 365 18,000 =77 days
Gearing ratio	Interest bearing debt/(Interest bearing debt + Shareholders' fund) *100	3,000/(3,000+5,500)* 100 =35.3%	6,700/(6,700+2,8 00)*100 =70.5%
Dividend cover	Profit after tax/Dividends	900/250 =3.6 times	1,000/700 =1.4 times

- **Introduction**
- This report is based on the draft financial statements supplied and the ratios shown in above. Although covering many aspects of performance and financial position, the report has been approached from the point of view of a prospective acquisition of the entire equity of one of the two companies.

- **Profitability**
- The ROCE of 20·9% of Humble Ltd is far superior to the 14·8% return achieved by Peace Ltd. ROCE is traditionally seen as a measure of management's overall efficiency in the use of the finance/assets at its disposal. More detailed analysis reveals that Humble Ltd's superior performance is due to its efficiency in the use of its net assets; it achieved a net asset turnover of 2·3 times compared to only 1·2 times for Peace Ltd. Put another way, Humble Ltd makes sales of K2·30 per K1 invested in net assets compared to sales of only K1·20 per K1 invested for Peace Ltd.

- The other element contributing to the ROCE is profit margins. In this area Humble Ltd's overall performance is slightly inferior to that of Peace Ltd, gross profit margins are almost identical, but Peace Ltd's operating profit margin is 10·5% compared to Humble Ltd's 9·8%. In this situation, where one company's ROCE is superior to another's it is useful to look behind the figures and consider possible reasons for the superiority other than the obvious one of greater efficiency on Humble Ltd's part. A major component of the ROCE is normally the carrying amount of the non-current assets. Consideration of these in this case reveals some interesting issues. Humble Ltd does not own its premises whereas Peace Ltd does. Such a situation would not necessarily give a ROCE advantage to either company as the increase in capital employed of a company owning its factory would be compensated by a higher return due to not having a rental expense (and vice versa). If Humble Ltd's rental cost, as a percentage of the value of the related factory, was less than its overall ROCE, then it would be contributing to its higher ROCE.

- There is insufficient information to determine this. Another relevant point may be that Humble Ltd's owned plant is nearing the end of its useful life (carrying amount is only 22% of its cost) and the company seems to be replacing owned plant with leased plant. Again this does not necessarily give Humble Ltd an advantage, but the finance cost of the leased assets at only 7·5% is much lower than the overall ROCE (of either company) and therefore this does help to improve Humble Ltd's ROCE. The other important issue within the composition of the ROCE is the valuation basis of the companies' non-current assets. From the question, it appears that Peace Ltd's factory is at current value (there is a property revaluation reserve) and note (ii) of the question indicates the use of historical cost for plant. The use of current value for the factory (as opposed to historical cost) will be adversely impacting on Peace Ltd's ROCE. Humble Ltd does not suffer this deterioration as it does not own its factory.

- The ROCE measures the overall efficiency of management; however, as Love is considering buying the equity of one of the two companies, it would be useful to consider the return on equity (ROE) – as this is what Love is buying. The ratios calculated are based on pre-tax profits; this takes into account finance costs, but does not cause taxation issues to distort the comparison. Clearly Humble Ltd's ROE at 50% is far superior to Peace Ltd's 19·1%. Again the issue of the revaluation of Peace Ltd's factory is making this ratio appear comparatively worse (than it would be if there had not been a revaluation). In these circumstances it would be more meaningful if the ROE was calculated based on the asking price of each company (which has not been disclosed) as this would effectively be the carrying amount of the relevant equity for Love Ltd.
- **Gearing**
- From the gearing ratio it can be seen that 71% of Humble Ltd's assets are financed by borrowings (39% is attributable to Humble Ltd's policy of leasing its plant). This is very high in absolute terms and double Peace Ltd's level of gearing. The effect of gearing means that all of the profit after finance costs is attributable to the equity even though (in Humble Ltd's case) the equity represents only 29% of the financing of the net assets. Whilst this may seem advantageous to the equity shareholders of Humble Ltd, it does not come without risk. The interest cover of Humble Ltd is only 3·3 times whereas that of Peace Ltd is 6 times. Humble Ltd's low interest cover is a direct consequence of

its high gearing and it makes profits vulnerable to relatively small changes in operating activity. For example, small reductions in sales, profit margins or small increases in operating expenses could result in losses and mean that interest charges would not be covered. Another observation is that Peace Ltd has been able to take advantage of the receipt of government grants; Humble Ltd has not. This may be due to Peace Ltd purchasing its plant (which may then be eligible for grants) whereas Humble Ltd leases its plant. It may be that the lessor has received any grants available on the purchase of the plant and passed some of this benefit on to Humble Ltd via lower lease finance costs (at 7·5% per annum, this is considerably lower than Humble Ltd has to pay on its 10% loan notes).

- **Liquidity**
- Both companies have relatively low liquid ratios of 1·2 and 1·3 for Peace Ltd and Humble Ltd respectively, although at least Peace Ltd has K600,000 in the bank whereas Humble Ltd has a K1·2 million overdraft. In this respect Humble Ltd's policy of high dividend payouts (leading to a low dividend cover and low retained earnings) is very questionable. Looking in more depth, both companies have similar inventory days; Humble Ltd collects its receivables one week earlier than Peace Ltd (perhaps its credit control procedures are more active due to its large overdraft), and of notable difference is that Peace Ltd receives (or takes) a lot longer credit period from its suppliers (108 days compared to 77 days). This may be a reflection of Peace Ltd being able to negotiate better credit terms because it has a higher credit rating.

Summary

- Although both companies may operate in a similar industry and have similar profits after tax, they would represent very different purchases. Humble Ltd's sales revenues are over 70% more than those of Peace Ltd, it is financed by high levels of debt, it rents rather than owns property and it chooses to lease rather than buy its replacement plant. Also its remaining owned plant is nearing the end of its life. Its replacement will either require a cash injection if it is to be purchased (Humble Ltd's overdraft of K1·2 million already requires serious attention) or create even higher levels of gearing if it continues its policy of leasing. In short although Humble Ltd's overall return seems more attractive than that of Peace Ltd, it would represent a much more risky investment. Ultimately the investment decision may be determined by Love's attitude to risk, possible synergies with its existing business activities, and not least, by the asking price for each investment (which has not been disclosed to us).

END OF SOLUTIONS

Zambia Institute of Chartered Accountants

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 16 MARCH 2021

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

Just for you (JFU) Ltd, produces and sells Jafaru. JFU is preparing its budget for the year 2020. The budget will need to be approved by 30 November 2019. The forecasted bank overdraft as at 31 December 2019 is K360,000.

The planned selling price of Jafaru is K318. Each of the months of March, June, September and November are expected to achieve 8.5% of the planned sales quantity. The remainder of the planned sales quantity is expected to be achieved equally in all of the other months. The sales receipts are 80% of the current sales and the balance is spread equally over the next two months.

Variable cost per unit:
Raw material requirement was 10 kgs at the price of K12 per kg. Direct labour takes 18 hours and paid at an hourly rate of K5. The variable overheads are recovered at the rate of K2 per labour hour.

The JFU has planned a target profit of K1, 440,000 for 2020. The fixed costs for the year are evenly planned as follows:

	K
Production overheads	2,160,000
Administration overheads	1,440,000
Selling overheads	720,000
Total	**4,320,000**

JFU plans to settle K632,500 outstanding dividends in the third month of the new year.

The materials are paid for in the month following the purchases. Labour costs, variable and fixed costs are settled as they are incurred.

The production of each month's sales is planned as, 40% of each month's sales are produced in the month before sale and the balance is produced in the month of sale. The purchase of the direct materials required for each month's production is planned as follows:

(i) 35% of each month's direct materials requirements are purchased in the month before the materials are required.
(ii) 65% of each month's direct materials requirements are purchased in the month the materials are required.

The inventory of direct materials and finished goods at 1 January should be assumed to be consistent with the above policies.

Required:

(a) Calculate the total budgeted sales quantity (units) for the year 2020. (5 marks)

(b) Calculate the breakeven point in units and revenue. (3 marks)

(c) Calculate the budgeted sales quantity for each of the months of May and November. (5 marks)

(d) Calculate the margin of safety as a percentage of budgeted sales and comment on the results. (3 marks)

(e) Prepare the production quantity budget for each of the first three (3) months of the year 2020. (3 marks)

(f) Prepare the direct materials purchases budget (in kilogram and value) for the first three months of the year 2020. (6 marks)

(g) Prepare the cash budget for the first three (3) months of the year 2020. (15 marks)

[Total 40 Marks]

SECTION B

Attempt any Three (3) out of Four (4) Questions

QUESTION TWO

(a) Describe each of the following standards.

(i) Ideal standard (1 mark)
(ii) Current standard (1 mark)

(b) State and explain two (2) potential effects of using a 'basic standard' on staff morale. (2 marks)

(c) The following is a standard cost per unit for product X.

	K
Material A - 3kg @ K25 each	75.00
Material B - 2kg @ K20 each	40.00
Labour - 2 hours @ K50 each	100.00
Variable overheads K16 per labour hour	32.00
Fixed overhead- absorbed at K10 per unit	10.00
Budgeted cost per unit	257.00

Output is budgeted at 50 units per week.

In the week beginning 1 March 2020, 45 units of product X were produced and the following costs were incurred.

Material A -140 kg costing	K4,725.00
Material B -105 kg costing	K1,800.00
Labour 97 hours	K4,947.00
Variable overheads	K1,500.00
Fixed overheads	K 650.00
Total cost of production	**K13,622.00**

Required:

Calculate the following variances:

(i) Material price variance for materials A and B (4 marks)
(ii) Material usage variance for material A (2 marks)
(iii) Materials mix and yield variances (6 marks)
(iv) Variable overhead expenditure variance (2 marks)
(v) Total fixed overhead variance (2 marks)

[Total: 20 Marks]

QUESTION THREE

Mwaiseni Ltd manufactures three (3) products classified as standard, luxury and deluxe in two (2) production cost centres (Machining and Fitting) and two service cost centres (Canteen and Maintenance).

The next year's budgeted production data and manufacturing costs for the company are as follows:

	Standard	Luxury	Deluxe
Production units	840	1,380	340
Prime cost per unit:			
- Direct material	K165	K210	K255
- Direct labour:			
Machining	K30	K60	K90
Fitting	K45	K180	K315
Machine hours	3 hours	4 hours	6 hours

Budgeted production overhead:

	Machining	Fitting	Canteen	Maintenance	Total
	K'000	K'000	K'000	K'000	K'000
Allocated overheads	414.90	292.05	249.00	399.75	1,355.70
Rent and lighting					255.00
Equipment depreciation/insurance					375.00
Additional data:					
Value of equipment (K'000)	2,250	1,125	450	675	
Number of employees	18	14	4	4	
Floor space (sq. metres)	3,600	1,400	1,000	800	

Approximately 70% and 30% of the maintenance department's costs are incurred servicing the Machining and Fitting cost centres respectively.

Mwaiseni Ltd recovers fixed production overhead in the machining department on a machine hour basis. It also uses a percentage of direct wages in the fitting production cost centre to recover production overheads.

Required:

(a) Prepare an overhead analysis statement showing the budgeted production overhead for each of the four cost centres. (4 marks)

(b) Calculate appropriate overhead absorption rates for each of the production cost centres. (10 marks)

(c) Calculate the manufacturing cost per unit for each of the company's three products. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Sambondu plc (S Plc) experiences changing levels of demand, but produces a constant number of units during each quarter. The company allows inventory levels to rise and fall to satisfy the differing quarterly demand levels for its product. A Just – In – time (JIT) manufacturing philosophy is an alternative inventory model S Plc might switch to. It has been advocated that a backflush accounting system is the accounting system that works well with the JIT.

Required:

(a) (i) Identify and explain the reasons for three (3)cost changes that would result if S Plc changed to a Just-In- Time production method. Assume there will be no inventories at the start and end of the year. (4 marks)

(ii) Explain Backflush Accounting. (6 marks)

(b) S Plc makes three products, X, Y and Z, of which unit costs, machine hours and selling prices are as follows:

	Product X	Product Y	Product Z
Machine hours	10	12	14
	K	K	K
Direct materials @K0.50 per kg	7	6	5
Direct wages @K0.75 per hour	9	6	3
Variable overheads	3	3	3
Marginal cost	19	15	11
Selling price	25	20	15
Contribution	6	5	4

Sales demand for the period is limited as follows.

Product X	4,000
Product Y	6,000
Product Z	6,000

As a matter of company policy, it is decided to produce a minimum of 1,000 units of Product X. The supply of materials in the period is unlimited, but machine hours are limited to 200,000 and direct labour hours to 50,000.

Required:

Compute the production levels that should be adopted for the three (3) products in order to maximise profitability, and state the maximum contribution. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

To understand modern developments in management accounting one should appreciate the context of those developments. The last 25 years have seen major changes in the nature of the world economy, technology, the nature of market demand and manufacturing practices. One example of these changes is the appearance of low-cost, high-quality producers of manufactured goods in the Pacific-rim countries. It is inevitable that management accounting would respond to these changes.

The focus of traditional management accounting is to compare actual results against a preset standard (typically the budget), identifying and analysing variances and taking remedial action to ensure future outcomes conform to budgeted outcomes. Traditional cost control systems tend to be based on the preservation of the status quo and the ways of performing existing activities are not reviewed. The emphasis is on cost containment rather than cost reduction. Cost management focuses on cost reduction and continuous improvement and change rather than cost containment.

(Adapted extract from Management and Cost Accounting Text – Colin Drury)

Required:

(a) Explain life cycle costing and describe the typical pattern of cost commitment and cost incurrence during the three stages of a products life cycle. (3 marks)

(b) Explain why absorption costing is usually considered to be unsuitable for decision making. Justify your answer. (4 marks)

(c) Explain the circumstances in which the use of activity based costing is likely to result in more meaningful information about product costs and profitability. (4 marks)

(d) For a number of years, Chingola Nchanga Ltd (C N Ltd) has produced its annual budgets using incremental budgeting techniques. The board chairman recently appointed new senior management and consequently the annual budget for 2020 is going to be prepared using zero based budgeting (ZBB) techniques.

Required:

(i) Explain the main features of ZBB. (2 marks)

(ii) Discuss the problems that might arise when implementing the ZBB technique in C N Ltd. (3 marks)

(iii) Outline two (2) advantages and two disadvantages of C N Ltd involving budget holders in the setting of budgets for their responsibility centres. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.2 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) Total budgeted sales units for the year 2020.

	K
Total fixed costs	4,320,000
Net profit	1,440,000
Total Contribution	5,760,000
Contribution per unit (318 – 246)	72
Sales units for the year 2020	(5,760,000/72) = 80,000

(b) Breakeven Point

BEP (units) = Fixed costs /contribution per unit

BEP (units) = $\frac{4,320,000}{72}$ = 60,000 units

BEP (Revenue) = 60,000 units x K318 = K19,080,000

(1 marks)

(c) Budgeted sales quantity for May and November 2020

Budgeted sales for May	6,600 units
Budgeted sales for November	6,800 units

Workings :

March,June & Sept & November: (80,000/12)	6,800 units per month
Others [80,000 – (4 x 8,000)/8]	6,600 units per month

(d) Production quantity (units) Budgets for each of the first three months of the 2020.

	January	February	March	April
Budgeted Sales units	6,600	6,600	6,800	6,600
60% of current months sales	3,960	3,960	4,080	
40% of next month's sales	2,640	2,720	2,640	
Budgeted Production	6,600	6,680	6,720	

(e) Direct materials purchases (in Kilograms and Value)

	January	February	March	April
Budgeted usage (Production X Usage per unit)	66,000	66,800	67,200	66,000
Opening raw materials inventory (35% of current usage)	(23,100)	(23,380)	(23,520)	23,100
Closing raw materials inventory (65% of next month usage)	43,420	43,680	23,100	
Budgeted purchases in Kilograms	86,320	87,100	66,780	
Budgeted purchases price (K/kg)	12	12	12	
Budgeted purchases Value (K)	1,035,840	1,045,200	801,360	

(f) Margin of safety

MOS % = [(Budgeted sales units less BEP sales units)/Budgeted sales units] x 100%

MOS% = [(80,000 – 60,000)/80,000] X 100% = 25%

The budgeted sales will have to fall by more than 25% to make a loss.

(g) Cash Budget for the three months January to March 2020

	January	February	March
	K	K	K
Cash Inflows			
Sales receipt (w1)	1,679,040	1,888,920	2,149,680
Cash Outflows			
Purchases (w2)	-	1,035,840	1,045,200
Dividends			632,500
Labour (w3)	594,000	601,200	604,800
Variable overheads(w4)	237,600	240,480	241,920
Fixed production overheads (w5)	90,000	90,000	90,000
Fixed administration overheads (w6)	60,000	60,000	60,000
Fixed selling overheads (w7)	30,000	30,000	30,000
Total cash outflows	1,011,600	2,057,520	2,704,420
Net cash flows	667,440	(168,600)	(554,740)
Opening cash balance	(360,000)	307,440	138,840
Closing cash balance	307,440	138,840	(415,900)

Workings	January	February	March
1. Receipt			
Budgeted Sales units	6,600	6,600	6,800
Budgeted sales price	318	318	318
Budgeted sales value (K)	2,098,800	2,098,800	2,162,400
Receipts:			
80% - current	1,679,040	1,679,040	1,729,920
20% - spread in the next 2 months		209,880	209,880
			209,880
Total receipts	1,679,040	1,888,920	2,149,680

2. Payment for purchases	**January**	**February**	**March**
Budgeted purchases Value (K)	1,035,840	1,045,200	801,360
Payment		1,035,840	1,045,200

3. Labour cost

	January	February	March
Budgeted production	6,600	6,680	6,720
Hours per unit	x 18	x 18	x 18
Total hours	118,800	120,240	120,960
Hourly rate (K)	x 5	x 5	x 5
Labour cost (K)	594,000	601,200	604,800

4. Variable overheads	January	February	March
Total hours (w3)	118,800	120,240	120,960
Rate	x 2	x 2	x 2
Variable overheads	237,600	240,480	241,920

5. Fixed production overheads

K1,080,000 ÷ 12 months = K90,000

6. Fixed Administration overheads

K720,000 ÷ 12 months = K60,000

7. Fixed production overheads

K360,000 ÷ 12 months = K30,000

SOLUTION TWO

(a) (i) An ideal standard is one which is set based on perfect working conditions, in which no wastage, spoilage or breakdown is anticipated.

(ii) A current standard is one which is based on current working conditions.

(b) Potential effects of using basic standards on staff morale

- Does not encourage innovation with the view to improve performance and can therefore be demoralizing for staff.
- Does not encourage hard work as the standard can be met and exceeded with little or no effort.

(c) Material price variance

(i) Material A : Standard price (140 kg × K25) = K 3,500
Actual price = K 4,725
Material price variance K 1,225 (A)

Material B: Standard price (105 kg × K20) = K2,100
Actual price = K1,800
Material price variance K 300 (F)

(ii) Material A usage variance

Standard usage (45 units × 3kg) = 135 kg
Actual usage = 140 kg
Variance 5 kg (A) × K25 = K125 (A)

(iii) Materials mix variance

	Standard mix	Actual mix	Variance	Std Price	Variance
	Kg	kg	kg	K	K
Material A:	147	140	7 (F)	25	175 (F)
Material B:	98	105	7 (A)	20	140 (A)
Materials mix variance					35 (F)

Materials yield variance

Standard usage = 3kg + 2kg = 5kg per unit.
245 kg should yield (245/5kg) = 49 units
but did yield = 45 units
Yield variance (49 -45) = 4 units × K115 = K460 (A).

(iii) Variable overhead expenditure variance.

Standard variable overhead expenditure= 97 hours × K16	= K1,552
Actual expenditure	= K1,500
Expenditure variance	52(F)

(iv) Total fixed overhead variance

Overhead incurred	K 650
Overhead absorbed	K 450
Overhead Variance	K200 (A)

SOLUTION THREE

(a) 0verhead Analysis Statement

	Apportionment basis	Machining	Fitting	Canteen	Maintenance
		K	K	K	K
Allocated overheads		414,900	292,050	249,000	399,750
Rent & lighting	Area	135,000	52,500	37,500	30,000
Equipment depreciation & insurance	value	187,500	93,750	37,500	56,250
Apportioned overheads		737,400	438,300	324,000	486,000

(b) Workings for overhead absorption rate calculations

1. Budgeted overheads

	Basis	Machining	Fitting	Canteen	Maintenance
		K	K	K	K
Apportioned overheads		737,400	438,300	324,000	486,000
Canteen	Employees	162,000	126,000	(324,000)	36,000
Maintenance	Percentages	365,400	156,600	-	(522,000)
Budgeted overheads		1,264,800	720,900	-	-

2. Budgeted level of activity

		Machining		Fitting	
Product	Budgeted production	machine hours/unit	Total machine hrs	Direct labour cost/unit	Total labour cost
				K	K
Standard	840	3	2,520	45	37,800
Luxury	1,380	4	5,520	180	248,400
Deluxe	340	6	2,040	315	107,100
			10,080		393,300

Overhead absorption rates

$$\text{OAR} = \frac{\text{Budgeted overhead}}{\text{Budgeted activity}}$$

Machining

$$\text{OAR} = \frac{\text{K}1{,}264{,}800}{10{,}080 \text{ machine hours}}$$

= K125.48/machine hour

Fitting

$$\text{OAR} = \frac{\text{K}720{,}900}{\text{K}393{,}300}$$

= 183% of direct wages

(c) Manufacturing cost per unit

	Standard	Luxury	Deluxe
	K	K	K
Direct materials	165	210	255
Direct labour:			
Machining	30	60	90
Fitting	45	180	315
Prime cost	240	450	660
Production overhead:			
Machining	376.44	501.92	752.88
Fitting	82.35	394.40	576.45
Manufacturing cost	698.79	1,346.32	1,989.33

SOLUTION FOUR

(a) (i) The introduction of Just-In-Time production methods would output items as and when needed, and not build up inventories in period of low demand. Because of the absence of inventories, the company can expect the following changes:

- A decrease in inventory-related costs such as warehousing costs and holding costs
- An increase in ordering costs; smaller orders will be placed more frequently to match production requirements exactly and avoid the build-up of inventory.
- However, because of the need to work overtime to meet fluctuating levels of demand, the company can expect an increase in labour and overhead costs.

(a) (ii)

Backflush accounting offers a simplified approach to costing by getting rid of unnecessary costing records.

It is suitable for use in a just-in-time (JIT) environment. A JIT company holds minimal amounts of inventory; raw materials are only ordered when they are required, production is fast and efficient keeping work-in-progress to a minimum and once production is complete goods are delivered straight to the customer which minimises the amount of finished goods held.

• Instead of building up product costs sequentially from the start to the finish of production, back-flush accounting calculates product costs retrospectively, at the end of the accounting period.
• The cost of raw materials is allocated to a 'raw materials and in progress' (RIP) account and labour and production overheads are allocated straight to the cost of goods sold account.
• At the end of the accounting period an inventory inventory-take is carried out to determine closing balances for raw materials, WIP and finished goods. This is quick as there are few inventories. Inventory values are based on budget/standard costs.
• The closing inventory values for raw materials and WIP are then 'backflushed' from the cost of goods sold account into the RIP account.
• Similarly the closing inventory value for finished goods is 'backflushed' into a finished goods account.
• Thus with back-flush accounting there will be a significant reduction in accounting costs.

Advantages	**Disadvantages**
• simple	• not appropriate if inventories are high
• less administration	• not appropriate for long production cycles
• gives the same results as traditional costing when	• provides less detailed information

inventories are low

Determine which the limiting factor is. At potential sales level:

	Sales potential units	Total machine hours	Total labour hours
Product X	4,000	40,000	48,000
Product Y	6,000	72,000	48,000
Product Z	6,000	84,000	24,000
		196,000	120,000

Thus, labour hours is the limiting factor. The next stage is to calculate contribution per labour hour.

Product X	Product Y	Product Z
$\frac{K6}{12}$=K0.500	$\frac{K5}{4}$= K0.625 8	$\frac{K4}{4}$= K1.000

Thus, production should be concentrated on Z, up to the maximum available sales, then Y, and finally X.

However, a minimum of 1,000 units of X must be produced. Taking these factors into account, the production schedule becomes:

	Units produced	**Labour hours**	**Cumulative labour hours**	**Contribution per Unit (K)**	**Total Contribution (K)**
Product X	1,000	12,000	12,000	6	6,000
Product Z	6,000	24,000	36,000	4	24,000
Product Y	1,750	14,000	50,000	5	8,750
				Total	38,750

SOLUTION FIVE

(a) Life-cycle costing estimates and accumulates costs over a product's entire life cycle in order to determine whether the profits earned during the manufacturing phase will cover the costs incurred during the pre- and post-manufacturing stages. Three stages of a product's life cycle can be identified - the planning and design stage, the manufacturing stage and the service and abandonment stage. Approximately 80% of a product's costs are committed during the planning and design stage. At this stage product designers determine the product's design and the production process. In contrast, the majority of costs are incurred at the manufacturing stage, but they have already become locked-in at the planning and design stage and are difficult to alter. Cost management can be most effectively exercised during the planning and design stage and not at the manufacturing stage when the product design and processes have already been determined and costs have been committed.

(b) The aim of absorption costing is to produce a product cost which ensures that overheads incurred during a period are recovered via the inclusion of a share of overhead in each unit of output. Its principal aim is not, therefore, to produce accurate product costs.

The determination of absorption costing product costs depends on a great deal of subjective judgement and hence, due to the requirement of accurate product costs for decision making, it is totally unsuitable for decision making. Areas of absorption costing requiring subjective judgement include the following

(i) Costs directly allocated to cost centres are only estimates made during the budgeting process and the overhead absorbed into products will depend on these estimates.

(ii) There is often more than one method for apportioning an overhead to a cost centre, the choice of method being at the discretion of, for example, the management accountant. The cost of the stores function could be apportioned to production departments on the basis of the number of issues made to departments or on the level of stock held for each department.

(iii) The choice of recovery rate (labour hours, percentage of prime cost and so on) will affect the amount of overhead absorbed per product and hence the product cost.

(iv) The denominator of the absorption rate (direct labour hours, machine hours and so on) is a budgeted figure.

(vi) All of the costs (and activity levels) included in the calculation of the amount of overhead to be included in each product are based on estimates. Such estimates are based on assumptions about the environment in which the organisation operates.

Due to the high degree of subjectivity involved in its operation, absorption costing can result in inaccurate and hence misleading information for decision making and should not therefore be used for that purpose.

It is not just the inaccuracy of the resulting product cost which makes absorption costing information unsuitable for decision making, however. Consider the following example.

Suppose that a sales manager has an item of product which he is having difficulty in selling. Its historical full cost is K40, made up of variable costs of K25 and fixed costs of K15. A customer offers K30 for it.

- If there is no other customer for the product, K30 would be better than nothing and the product should be sold to improve income and profit by this amount.
- If the company has spare production capacity which would otherwise not be used, it would be profitable to continue making more of the same product, if customers are willing to pay K30 for each extra unit made. This is because the additional costs are only K25 so that the profit would be increased marginally by K5 per unit produced.
- In absorption costing terms, the product makes a loss of K10, which would discourage the sales manager from accepting a price of K30 from the customer. His decision would be a bad one.

Thus, for once-only decisions or decisions affecting the use of marginal spare capacity, absorption costing information about unit profits is irrelevant. On the other hand, since total contribution must be sufficient to cover the fixed costs of the business, marginal costing would be unsuitable as a basis for establishing long-term prices for all output.

(c) Activity based costing (ABC) could provide more meaningful information about product costs and profitability in the following circumstances.

- **Where indirect costs are high relative to direct costs**. The cost of direct materials, for example, can usually be attributed to cost units relatively easily. The attribution of overhead costs tends to be more problematic. Traditionally, overhead costs have been attributed to cost units by fairly arbitrary methods such as absorption costing on the basis of direct labour hours. The introduction of new technology has typically resulted in a reduction in labour cost and an increase in overhead co t and labour hours may no longer be an appropriate absorption basis. An ABC approach would lead to more accurate co stings of products and departments by considering the processes that actually cause overhead costs to be incurred.
- ii) **Where products or services are complex**. By identifying the activities that consume resources and the cost drivers for each activity, the costs incurred can be traced more accurately to products and services according to the number of cost drivers that they generate.
- **Where some products or services are produced in large numbers but others are produced in small numbers**. Products and service incur overhead costs because of the activities that go into producing them. These activities are not necessarily related to the volumes that are produced. An ABC system recognises that direct labour hours and machine hours are not the drivers of cost in many modem business environments.
- **Where products or services are tailored to customer specifications**. An ABC system is more likely to trace accurately the costs incurred on each specific customer order. The result will be more accurate cost determination which will help in decisions such as pricing.

(d)(i)

With zero-based budgeting (ZBB), nothing is taken for granted. The budget is started from scratch. This can be contrasted with incremental budgeting where the starting point is last year's budget or actual results and then possibly a percentage is added on to account for inflation, or any expected changes in the level of activity. With ZBB each manager sets out what he or she wishes to accomplish over the forthcoming period.

For each activity that they wish to undertake, they look at alternative methods of achieving the objective, and look at providing the service at different levels.

Each activity is put into what is known as a decision package and the costs and benefits are estimated. The activity will only go ahead if the benefits exceed the costs. Also, once all the packages have been evaluated, they can be ranked against each other and the company resources can be allocated to the best packages.

ZBB is usually used in service organisations and is particularly common in local government, where ZBB acts as a control to improve efficiency in the absence of competitive markets.

(d)(ii)

A ZBB approach will definitely be more expensive and will be more time-consuming. The benefit from a better budget must exceed the extra cost.

The managers of CN Ltd may not have the skill or inclination to undertake the more time-consuming, laborious ZBB exercise. The staff may have to be persuaded as to the value of the exercise. This may be expensive in terms of senior management's time as they have to coax the staff of CN Ltd into taking on the culture change necessary for implementing a ZBB approach.
The ZBB exercise may need to be implemented with the aid of external consultants. This will, of course, be expensive and will also make things more complicated as now the consultants will have to be managed. ZBB involves 'reinventing the wheel'. where each year worthwhile activities are evaluated from scratch to see whether the benefit exceed the cost.

(d)(iii)

Some of the main advantages of participation in the setting of budgets include:

- **Acceptance and commitment** - where managers have taken part in the setting of the budget they are more likely to accept the resulting targets as relevant,
- **Us v Them attitudes can be reduced when targets and budgets are set with, participation**, not simply imposed. If managers are involved in the budget setting process more knowledge is made available since the managers have considerable detailed knowledge of day to day operations;
- **Better communication is achieved through participation,** in particular communication is both upwards and downwards within the organisation:

It is also generally accepted from research findings that participation will lead to.

1) Increased job satisfaction;

2) Decreased job-related tension;
3) Improved job attitudes.

However, there are potential disadvantages to participation. including:

- Under some circumstances, participation may lead to setting less difficult targets - the creation of "budget slack";
- Some personality types have been shown to react much better to an imposed budget;
- Increased need for training for non-financial managers - though this could also be argued as an advantage;
- The whole process may be more time-consuming.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 18 MARCH 2021

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 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

Supa Milling Plc. was recently listed on the Lusaka Securities Exchange (LuSE) after acquisition by an international company in the food manufacturing industry. The parent company has retained a majority of 70% of the shares with the remaining shares subscribed by institutional shareholders and individual shareholders.

Before the listing, the financial statements of Supa Milling Plc. was audited by Thrift Chartered Accountants, a small one partner firm. The company is in the process of raising additional capital and the parent company is committed to inject US$20 million in the company. The company recently obtained a loan of US$10 million from an investment bank secured on plant and equipment. The loan is repayable in dollars at a floating interest rate of 3%. The company wishes to diversify and go into the manufacturing of animal feed. The exchange rate between the local currency and the dollar has risen from an average of K12/1US$ in the past to K17.50/1 US$ in the last six (6) months.

The following resolutions were made by the board of directors of the parent company on the activities of Supa Milling Plc:

1. A change in senior management resulting in the contracts of five (5) senior managers not being renewed including that of the Finance Director, Moyo.
2. The contract with the existing auditors was terminated and the audit services were put to tender by inviting audit firms to bid for offering the services.
3. Being a transition year, the board resolved that a review of the financial statements rather than a full audit be conducted in the current year because it is a cheaper alternative for a company experiencing cash flow problems. Further, due to the termination of the contract for Moyo, the Finance Director, the Board proposed that a senior person from the firm that will be appointed auditor should be seconded to Supa Milling Plc. for a period of three (3) months to participate in the finalization of the preparation of the current year financial statements.
4. A new board of directors was put in place comprising executive and non-executive members. Clive who is a partner in Clive & Associates Chartered Accountants is one of the non- executive directors of the board.

The following information relates to the operations of Supa Milling Plc.:

1. Supa Milling Plc. buys maize, the major input to production, largely from small scale farmers and five (5) commercial farmers with whom the company has contracts to buy their maize failure to which the company will be required to pay the farmers the difference between the selling price to third parties and the agreed contract price. The agreement allows for legal action by the farmers in the event that some of their maize remains unsold.

   Three (3) years ago the company decided to maintain an inventory level of two (2) years requirements of maize and this policy will continue. In the last three (3) years the company lost 1% of its closing inventory due to the maize going bad. The bad maize has a very low realizable value and as such at each year end a provision is made in the financial statements for maize going to waste.

2. The government passed legislation in the current year requiring that the Bureau of Standards should carry out random inspections of the major players in this industry to ensure that they adhere to the regulations with regards to the use of disinfectants in the preservation of maize so that prohibited substances are not used.

3. Supa Milling Plc. sells the bulk of its products through agents based in the provincial centers. Each of the agents pays a refundable deposit equivalent to one month's inventory to Supa Milling Plc. and is given one (1) month credit for all the purchases. Due to general economic difficulties being faced in the country the receivables days have increased to 45 days resulting in most of the agents getting supplies exceeding the deposit held by Supa Milling Plc.

In an effort to control and manage the prices of mealie-meal, the Government set up milling companies through co-operatives to be managed by youths and women all around the country. The government guaranteed that it will sell maize to the co-operatives at prices determined by the Food Reserve Agency (FRA) which are much lower than the prices of maize in the open market. In this way it is hoped that the price of meal meal from co-operatives will be determined and controlled by Government.

You work for Clive & Associates Chartered Accountants as Audit Manager. Your firm has offices in four (4) provinces and the existing staff are busy on other assignments. Your firm submitted a bid for offering audit services to Supa Milling Plc. Your partner has requested you to prepare a presentation that will be made to the audit committee of Supa Milling. The partner has informed you that he has been talking to Moyo the former Finance Director of Supa Milling Plc. with a view to give him a job as Audit Manager and assign him on the audit of Supa Milling Plc.

If your firm is appointed auditor of Supa Milling Plc., it will also be required to provide legal services to Supa Milling Plc. The fee for the two (2) services will significantly increase the fee income from Supa Milling to 18% of your firm's total income.

Required:

(a) Explain the concept of audit and assurance in the context of the audit of Supa Milling Plc. (6 marks)

(b) Explain the meaning of reasonable assurance in an audit of financial statements and distinguish it from limited assurance. (6 marks)

(c) Explain four (4) matters that should be included in the presentation to the audit committee of Supa Milling Plc. by your firm. (6 marks)

(d) Identify and explain six (6) audit risks in the audit of Supa Milling Plc. and for each risk suggest a suitable audit response. (12 marks)

(e) Identify and explain five (5) ethical issues that must be considered in accepting appointment as auditor of Supa Milling Plc. and in each case suggest a suitable safeguard that should be taken. (10 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

(a) Accountants and Auditors are professionals whose work is relied upon by the public. It is necessary that the Accountants and Auditors perform their work with utmost due care and diligence.

At the international level, Accountants are supervised by the International Federation of Accountants (IFAC). The International Federation of Accountants) (IFAC) recognizes that regulation of external audits may differ among countries but recognizes that there are some common elements of regulation expected in each regime including the following:

1. Education and work experience;
2. Eligibility; and
3. Supervision and monitoring.

In Zambia, the Zambia Institute of Chartered Accountants (ZiCA) is the regulator of the accountancy profession.

Required:

Explain the purpose of regulation of auditors in Zambia and state how this is done. (4 marks)

(b) You are the Audit Manager in Kabwe & Co. a firm of Chartered Accountants. The audit of the financial statements of Hara Ltd for the year ended 31 December 2019 is about to be completed.

Accounting estimates are material in the financial statements of Hara Ltd and the risk of material misstatement is considered high. The following matters relating to the financial statements of Hara Ltd have been provided to you for your review.

1. At the end of the financial year, Hara Ltd was sued by one of its customers for negligence because of equipment that it sold which resulted in the death of one of the workers of the customer. It was later discovered that the cause of malfunctioning of the equipment was a manufacturing defect.

2. During the year-end inventory count, a significant quantity of solvents used in manufacturing expired and could not be used. There was inventory at locations not visited by the audit team and the only evidence of the inventory at these locations are the inventory returns and provision for obsolescence was made by management.

3. Soon after the year end but before signing and issuing the audit report, a fire gutted one of the warehouses of Hara Ltd and inventory worth K1.5 million was completely destroyed and this formed part of the closing inventory in the financial statements of Hara Ltd.

Required:

(i) Explain the meaning and use of written representations as a source of audit evidence and evaluate the need for written representations in the audit of Hara Ltd. (4 marks)

(ii) Explain the audit risk with regards to subsequent events that may occur in an audit of the financial statements of Hara Ltd. (2 marks)

(iii) Describe the audit procedures that should be undertaken for the three (3) matters above. (6 marks)

(iv) Illustrate how audit procedures performed subsequent to the accounting period provides evidence at the period end using the example of the legal case. (4 marks)

[Total: 20 Marks]

QUESTION THREE

You work for Nasilele & Company as Senior Consultant in the Information Technology (IT) department. The firm offers Information Technology (IT) Consultancy services to both audit and non-audit clients.

You led a team that provided consultancy in the procurement and installation of a new computer system in Acacia Ltd. You were specifically requested to implement the inventory system. Other applications will be implemented in phases by the Information Technology (IT) department which you will help set up. At the end of the assignment, you will be expected to come up with a policy manual that will be followed in developing computer systems.

Among the recommendations that you have already made is that all computer applications should be approved by the Board of Directors before implementation and that there should be clear segregation of duties between the Information Technology (IT) staff who will be responsible for the design of the systems and those that will carry out the tests of the new systems. Access to the computer system will be determined according to user needs and shall be restricted by the use of passwords which will require changing on an annual basis. The user departments will be involved in systems development in that they will define their requirements to the systems analysts and will also be involved in the testing and documentation of the systems and this will be evidenced in writing by way of the Head of the user department signing off the successful testing of the new application systems.

Inventory is a material amount in the financial statements of Acacia Ltd and the risk of misstatement is considered high. The company has a Stores department, under the supervision of the Stores Supervisor who is responsible for the initiation of procurement and issue of stores items. There is a Buying Officer who is responsible for purchasing and purchases are initiated based on an approved purchase requisition signed by the Production Manager. It is a requirement that three (3) quotations from the approved list of suppliers should be obtained out of which a preferred supplier will be selected and a purchase order raised. All purchase orders are approved by the Purchasing Manager and they are entered into the computer system awaiting receipt of goods which is evidenced by matching Goods Received Notes to the purchase orders.

Goods are sent direct to stores and before being accepted into stores, there is an independent quality control check carried out and if they meet the quality standard, a Goods Received Note (GRN) is raised and approved by the Stores Officer. The completed Goods Received Notes (GRNs) are batched and entered into the computer system on a weekly basis. The computer matches the Goods Received Notes (GRNs) to the Purchase Order without which no payment can go through. The processing of Goods Received Notes (GRNs) that are raised in the week is independently checked manually to confirm that all the Goods Received Notes (GRNs) have been input into the computer system.

At the end of each week, a stores ledger is generated by the system which shows the inventory items by category. All inventory items are identified by unique inventory numbers under two main classifications of raw materials and finished goods. All changes to standing data in the inventory system requires written authorization. At the end of the financial year, an annual inventory count is conducted and all inventory held for third parties is isolated and not included in the final inventory listing.

During the year, Acacia Ltd acquired a generator set as an alternative source of power. This was necessitated because of the frequent power cuts from the national grid.

Required:

(a) (i) Explain the meaning of Information Technology (IT) General and Application controls. (2 marks)

(ii) Using the information in Acacia Ltd, explain two (2) examples of general controls and two (2) examples of application controls. (4 marks)

(b) (i) Explain four (4) limitations of internal controls in Acacia Ltd. which could result in fraud and error going undetected. (4 marks)

(ii) Explain the purpose of performing tests of controls over inventory controls and suggest two (2) tests of controls for the inventory system in Acacia Ltd. (4 marks)

(iii) Explain four (4) audit procedures that should be performed in the audit of the closing inventory figure in the financial statements of Acacia Ltd. stating the assertion being tested by each procedure. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) Nyanga Ltd is a medium size company in the retail sector. The company is family owned and has grown over the past twenty (20) years from one (1) shop to having five (5) shops in Lusaka and another three (3) shops in other locations.

Ishmael has been at the helm of the company since its inception. Due to the growth that has been experienced, Ishmael has lost control of the company and this has resulted in losses of cash and inventory in most of the shops.

Ishmael has been advised by Patel who has been in the retail business for many years on what should be done in order to improve the controls. Ishmael, as a result of the advice given, has decided to set up a Head Office comprising a staff complement of four (4) whose responsibility will be to monitor the operations of the company. He is also contemplating setting up a Board of Directors which will consist of the four (4) members of staff at Head Office and each of the Shop Managers of his shops and two non-executive board members who will comprise the audit committee.

Required:

(i) Explain the roles of management and the Board of Directors in the running of Nyanga Ltd. (4 marks)

(ii) Evaluate the composition of the proposed Board of Directors of Nyanga Ltd. (2 marks)

(iii) Explain the importance of having non-executive board members in the Board of Directors of Nyanga Ltd and explain three (3) roles non-executive directors can play in the Board of Directors. (4 marks)

(b) You are the Audit Manager in Mable & Co, a firm of chartered accountants. You are in charge of three (3) audit clients and you have been provided with the following information regarding the clients for your review and recommendation on the effect each will have on the audit opinion.

Nopani Ltd:
Nopani Ltd faced serious cash flow problems over the past few years. In the year under review, management made an assessment on the ability of the company continuing as a going concern.

Management based its assessment on an undertaking by the parent company to inject more money into the company failure to which the company will face serious going concern issues. In evaluating management's assessment and after discussions with management of Nopani Ltd, it was agreed that there exists material uncertainty with regards to the going concern of Nopani Ltd. It was agreed that the use of the going concern basis of preparing financial statements was appropriate and that management needed to make appropriate disclosures in the financial statements failure to which this will have implications for the audit opinion. Management prepared the financial statements on the going concern basis and made adequate disclosures in the financial statements regarding the material uncertainty that existed.

Lennox Ltd:

The year-end of Lennox Ltd is 31 December 2019. The draft financial statements contained a provision made with regards to a legal case arising from litigation by former employees who sued Lennox Ltd for underpayment of retirement benefits and are claiming compensation and interest.

The amount involved is significant and could influence the users of financial statements and management made adequate disclosure regarding this provision in the notes to the financial statements. It is your view that this matter is fundamental to the understanding of the financial statements by users and you would like to refer to it in the audit report.

Parrot Plc.

Parrot Plc. is a public listed company in the manufacturing industry. In accordance with ISA 260 *Communication with those charged governance*, your firm communicated a number of issues to those charged with governance concerning significant matters of concern that were faced during the audit.

One of the matters that the firm experienced during the audit is a disagreement on an accounting estimate with regards to allowance for receivables. Management made a allowance which in the view of the auditors was significantly understated.

After discussions with management and the Board, it was resolved that the allowance should be increased to an amount acceptable by the auditors and this was appropriately dealt with and disclosed in the financial statements. The Audit Senior considers this to be a key audit matter.

Required:

Evaluate and state the impact of each of the three matters above to the audit opinion and audit report. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Kalima Ltd, a privately owned company has been an audit client of your firm, Monga & Co for the last five (5) years during which the scope of the engagement has been the audit of the financial statements and providing non-audit services when required.

During the current year, there was a reorganization arising from Kalima Ltd having been acquired by New Tech Plc. an American multi-national company. Arising from the acquisition, there was a complete change in management and in accordance with the policy of the American parent company, the scope of work of the auditors was changed to the provision of audit services only to audit clients. The parent company requires all its subsidiaries to prepare interim financial statements for the first half of each year and these shall be subject to a review by the subsidiary company auditors.

The provision of audit services was put to tender and Monga & Co put in their bid and were awarded the tender for provision of audit services to Kalima Ltd.

Required:

Identify and explain four (4) factors that may suggest a need to issue a new engagement letter to the management of Kalima Ltd. (6 marks)

(b) You work for Mubanga Chartered Accountants as Audit Manager. You have been assigned to the audit of Strawberry Plc. and you have completed the risk assessment.

The year-end of Strawberry Plc. is 31 December 2019 and the reporting timetable of Strawberry Plc. is tight. The audit report is expected to be signed by 15 March 2020 in readiness for the Board meeting to be held on 25 March 2020.

During the process of gaining an understanding of the operations of Strawberry Plc., you establish that the company has a strong control environment. Strawberry Plc. has an internal audit department headed by the Chief Internal Auditor who reports to the Finance Director of Strawberry Plc. The Finance Director is one of the executive Board members of the Board of Directors of Strawberry Plc. and he is the Chairman of the Audit Committee of the Board.

The internal audit department has a complement of five (5) including the Chief Internal Auditor. The rest of the staff are one (1) Senior Auditor, three (3) Audit Assistants. Two (2) of the Audit Assistants were recently recruited and are non-accountants.

Work is assigned to the Audit Assistants by the Senior Auditor based on the audit plan agreed with the Chief Internal Auditor and the Finance Director. The Audit Assistants perform the audits and summarize their findings which are presented to the Senior Auditor for review before he prepares the final Internal Audit Report which is signed by the Chief Internal Auditor. The Senior Auditor only calls for a review of the working papers if he has a concern on a matter in the findings summarized by the Audit Assistants.

There is no evidence of follow up being made by the internal audit department of the implementations of the recommendations previously made. A review of a number of internal audit reports showed that the same recommendations were being made with few being implemented by management.

In view of the tight reporting timetable of Strawberry Plc., you are considering relying on the work carried out by the internal audit department in planning the extent of the audit work that you will perform and seeking direct assistance from the internal audit department of Strawberry Plc.

In the pre-audit team meeting held, the Engagement Partner reminded everyone present of the need to perform the audit with professional skepticism and to apply professional judgment where required to do so.

Required:

(i) Distinguish between using the work of internal audit and seeking direct assistance from internal auditors. (4 marks)

(ii) Explain four (4) matters you will consider in deciding whether to use the work of the internal audit department of Strawberry Plc. and make an appropriate recommendation. (6 marks)

(iii) Explain what is meant by professional skepticism and professional judgment and describe two (2) areas where professional judgment can be applied when planning the audit of the financial statements of Strawberry Plc. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.3 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) The concept of audit and assurance in Supa Milling Plc.:

The concept of audit and assurance arises when one (1) party, the practitioner, gives an assurance to the interested party on how the responsible party has fulfilled its role as stewards of the interested party.

In the case of Supa Milling Plc., the company is owned by shareholders who have invested in the company. The shares are listed on the securities exchange and change hands as they are bought and sold on the securities exchange. The shareholders do not take part in the running of the company and this function is delegated to management who are responsible for the day to day operations of Supa Milling Plc. It is therefore evident that there is a clear separation between management and ownership.

The link between management and the shareholders is at the annual general meeting at which financial statements prepared by management are presented. The financial statements presented are supposed to be prepared in accordance with applicable accounting standards.

The question that arises is with regards to the reliability of the financial statements prepared by the management of Supa Milling Plc. The shareholders and other stakeholders need assurance that the financial statements have been prepared in accordance with the applicable financial reporting framework and that they are free from material misstatements. External auditors play the role of examining the financial statements prepared by management of Supa Milling Plc. and form an opinion on whether the financial statements show a true and fair view. The external auditors are appointed by the shareholders and they report their finding to the shareholders.

(b) Reasonable assurance and limited assurance:

An audit carried out by external auditors on the financial statements of a client company is a form of assurance engagement. The level of assurance given in an audit of financial statements is a reasonable assurance.

Reasonable assurance:

This is the form of assurance that comes out of an audit of financial statements. The characteristics of this form of assurance include:

- The fact that more work is performed by the auditor which will form the basis of the opinion that will be reached.
- It is a high level of assurance although it is not absolute.
- The form of opinion takes a positive form whereby the auditor concludes based on evidence gathered whether the financial statements show a true and fair view or that they do not show a true and fair view.

Reasonable assurance is distinguished from limited assurance which is given in a review of financial statements and this is explained below:

Limited assurance:
This is a different level of assurance that the auditor can give arising from a review engagement such as the one being proposed by Supa Milling Plc. A limited assurance has the following characteristics:

- It is a lower level of assurance arrived at after performing work that is less than that which would be required for an audit.
- Involves largely the use of analytical reviews and enquiries of management and others within the organization.
- It is a negative form of reporting where the practitioner gives an assurance that nothing has come to their attention which indicates that the financial statements have not been prepared in accordance to the framework.

(c) Matters that should be in the presentation to the audit committee of Supa Milling Plc.:

1. A brief of the size of the firm and the availability of resources used in performing audits. This information will help Supa Milling Plc. assess the ability of the firm to provide the required audit services.
2. Qualifications and experience of the key staff of the audit firm. This will give the prospective client and idea of the capacity of the firm in terms of competencies and skills that the firm poses in comparison with other bidders.
3. Any reference of clients that the firm has or has audited previously. References of the firm's other clients will assist Supa Milling Plc. to assess the ability of the firm to perform an audit of the company.
4. Brief on how the firm will meet the requirements of Supa Milling Plc. This will be in response to the requirements and needs of Supa Milling Plc. as defined in the bid documents which will clearly define the expectations of the company from the auditors.
5. The proposed fee and the basis for determining the fee. One of the possible reason for putting the offer of audit services to tender is in order to make the fee competitive and enable Supa Milling Plc. select the firm that will provide the required service at a competitive fee.

(d) Audit risks in Supa Milling Plc.:

1. **Adherence with securities exchange regulations:**
   Supa Milling Plc. is a listed company on the Lusaka Securities Exchange and it is expected to meet to securities exchange requirements, some of which may have consequences for not meeting them. Further, non-compliance may have going concern consequences as well as penalties. There is a risk that provisions could be understated in the financial statements.

Audit response:
Obtain details of the securities exchange regulation during the risk assessment procedures. During the audit look out for any evidence of non-compliance securities exchange requirements.

2. **Loan of US$ 10 million secured on the plant & equipment:**
The loan of US$ 10 million is repayable in dollars and Supa Milling Plc. runs the risk of failing to repay the loan due to the rapid depreciation of the local currency. The depreciating local currency will put pressure on the cash flows of Supa Milling Plc. and in the event of failing to repay the loan when it is due, the lender may enforce the security which may have going concern implications for the company.
There is a risk that the loan may be misclassified in the financial position.

Audit response:
Review the loan agreement and ensure that Supa Milling Plc. adheres to the loan conditions including the payment of interest and the principal amount. Also ensure that the loan is classified correctly as long term (non-current liability) in the Statement of financial position of Supa Milling Plc.

3. **Lack of Finance Director with termination of contract of Moyo:**
The termination of the contract of employment of Moyo, the Finance Director and the lack of a replacement poses a risk that the financial statements may be misstated. It is possible that incorrect policies may be followed and errors may go through undetected because of the absence of a key person in the company.

Audit response:
Consider an increase in the level of substantive tests that will be performed and also require that the audit team should apply professional skepticism throughout the audit.

4. **Failure to meet contractual terms with the five (5) farmers:**
Supa Milling Plc. has entered into contracts with the five (5) farmers to buy their maize and in the event that the company fails to buy the maize there is a condition that Supa Milling Plc. will need to pay the difference in the event that open market prices are lower. Failure to buy and pay for the shortfall will result in legal action being taken against Supa Milling Plc. There is a risk that the company may fail to purchase the maize or pay the shortfall and so be sued. Provisions in the financial statements of Supa Milling Plc. may be misstated.

Audit response:
Examine minutes of the Board of Directors for any evidence of legal action that may have been taken against Supa Milling Plc. Enquire for evidence of

compliance with terms of the agreement with the farmers and obtain evidence of Supa Milling Plc. purchasing the maize in the past.
Review any correspondence with the farmers for any suggestion of non-compliance with the agreement. In the event of a legal case ensure that provision made is adequate.

5. **Damaged maize and provision for damaged maize:**
The nature of the business that Supa Milling Plc. is involved in is such that there could be loss of inventory of maize due to poor storage and having the maize go bad. There is a risk that the provision for maize that goes bad at the year-end may be understated resulting in an overstatement of inventory and profit.

Audit response:
Enquire from management the basis of the provision made in the financial statements. Compare the actual wastage of maize inventory subsequent to the period end with the provision made.

6. **Non-compliance with laws & regulations:**
Supa Milling Plc. is subject to stringent regulations regarding the use of prohibited chemicals in preserving maize. There are stiff penalties for using prohibited chemicals and in the extreme, non-compliance can result in the withdrawal of the operating licence. There is a risk that provisions for non-compliance may be understated and also there are implications with regards to going concern in the extreme case of licence withdrawal.

Audit response:
Obtain an understanding of the prohibited chemicals and look out for any evidence of use of such chemicals. During the course of the audit look out for any non-compliance with relevant laws and regulations and where there is evidence of non- compliance evaluate the adequacy of the provision made at the period end.

7. **Recognizing deposits from agents as revenue:**
The deposits received from agents is refundable and should be treated as a liability. There is a risk that Supa Milling Plc. may treat such deposits as revenue contrary to accounting standards.

Audit response:
Obtain a list of all agents and ensure deposits received are included in liabilities and not revenue. Obtain a reconciliation of the deposit accounts and compare details with the schedule of agents.

8. **Irrecoverable receivables:**
   The increase in receivables days is indicative of the possibility of the irrecoverbility of receivables. There is an audit risk that the receivables may be overstated in the financial statements of Supa Milling Plc.

   Audit response:
   Review the allowances for receivables and compare with the actual receivables written off. A review of the receivables age analysis will need to be done and also a circularization of a sample of receivables to confirm the balances.

9. **Competition from co-operatives:**
   The move by the government to fix the price of mealie-meal through subsidized maize to the co-operatives will result in competition with Supa Milling Plc. which will not benefit from the subsidized maize. This may result in significant drop in sales of Supa Milling Plc. and could have going concern implications especially that it cannot reduce prices to the level of the co-operatives.

   Audit response:
   Review the level of revenue and the assumptions made by management when reviewing the ability of Supa Milling Plc. as a going concern.

10. **First time to audit client in this industry:**
    This will be the first time that the firm will be auditing a client in this industry. This means that the detection risk in this audit will be high. There is a risk that material misstatements may go undetected due to lack of experience in this industry by most of the audit team members.

    Audit response:
    There will be need to enhance monitoring, supervision and review of the work carried out. Quality control reviews should also be considered in order to reduce detection risk to a low level.

(e) Ethical matters in Supa Milling:

1. **Secondment of staff from the firm:**
   The request by Supa Milling Plc. that a senior member of staff from the firm should be seconded to Supa Milling Plc. in order to help finalization of the preparation of the financial statement is an ethical issue. This can result in self-review threat and may impact on the independence and objectivity of the firm.

Safeguard:
The firm should only agree to second someone if it has the necessary human resources to do so. The person who should be seconded should not be part of the audit of the financial statements of Supa Milling Plc. Further, it will be appropriate that suitable quality control measure should be put in place so that the working papers of the audit of Supa Milling Plc. are reviewed by an individual who was not involved in the audit.

2. **Clive on the Board of Directors of Supa Milling Plc.:**
The fact that Clive, a partner in Clive & Associates Chartered Accountants is a member of the Board of Directors of Supa Milling Plc. will give rise to a self-interest threat if the firm gets appointed as auditor of Supa Milling Plc. Clive who will be playing the role of management by being in the board may not be objective in carrying out the audit.

Safeguard:
Clive should relinquish his position as board member of Supa Milling Plc.

3. **Recruitment of Moyo and assignment on the audit of Supa Milling Plc.:**
The recruitment of Moyo as Audit Manager in Clive & Associates Chartered Accountants and subsequently to assign him on the audit of Supa Milling Plc. will give rise to self-review and familiarity threats. Moyo lacks independence due to his recent employment with Supa Milling Plc. and he is familiar with the staff at Supa Milling Plc. He would have been involved in determining some of the figures in the financial statements as well as putting in place the controls in the company.

Safeguard:
Moyo should not be assigned on the audit of Supa Milling Plc. A different person should be assigned to this audit.

4. **Relying substantially on Supa Milling Plc.:**

If Clive & Associates Chartered Accountants get the audit of Supa Milling, the fee income from Supa Milling Plc. will amount to 18% of the total fee income of the firm. This gives rise to a self-interest threat in that the firm will be relying too much on one client. In this situation, the firm will not be objective for fear of losing this client.

Safeguard:
The firm should not be too reliant on one client for its income. In a situation where this is the case the firm may consider putting in place quality control measures where the working papers are reviewed by an independent external person who was not involved in the audit.

The firm may consider reducing dependency by giving up any non-audit services and only remain with offering assurance services.

5. **Offer of legal services:**

The request that the firm should offer legal services to Supa Milling Plc., its assurance client, will give rise to advocacy threat and result in the firm losing objectivity.

Safeguard:
The firm may offer legal services to Supa Milling Plc. if it has a separate legal department and the people who will offer these services will not be part of the audit team. Disclosure to the audit committee should be made with regards to the legal services offered. If the risk is too high and no suitable safeguard can be put in place, firm should consider declining the offer to provide legal services.

SOLUTION TWO

(a) Purpose of regulation and how it is done in Zambia.

The work that accountants do is in the public interest and is relied upon by many in making financial decisions. The purpose of regulating the work of accountants is in order to enhance credibility of the work that is done and that it is done in a professional manner.

In Zambia, the accountancy profession is regulated by the Zambia Institute of Chartered Accountants (ZiCA). The Accountants Act 2008 requires auditors to have practicing certificates issued by ZiCA and the institute also issues non practicing certificates for those who do not carry out audits of financial statements. Further, all accountants in Zambia are required to be members of the Zambia Institute of Chartered Accountants (ZiCA) for the purposes of being able to regulate the members.

ZiCA has an inspectorate division which carries out inspections of the work of its members with practicing certificates with a view of ensuring that they comply with auditing standards.

The Zambia Institute of Chartered Accountants (ZiCA) can displine erring members and in the extreme cases withdraw membership of such erring members.

(b) (i) Meaning of written representations:

ISA 580 *Written representations* provides guidance to the auditors in this area.

Written representations are written statements made by management and provided to the auditor to confirm certain matters or to support other audit evidence.

Written representations form part of the evidence gathered by the auditors and can be relied upon in arriving at the audit opinion.

Need for written representations in the audit of Hara Ltd:

In the audit of the financial statements of Hara Ltd, the auditors could obtain written evidence in the following situations:

- o Hara Ltd has been sued for causing the death of one of its customers. It is likely that the court may find Hara Ltd guilty of this and may be required to pay compensation. The management of Hara Ltd may make a provision for this case in the financial statements and this is subjective until when the case is determined by the courts. The auditors may request the management of Hara Ltd to provide written representations that it believes that the amount provided for is adequate or where no provision has been made that the management believes that the case will be ruled in its favour.
- o The provision for obsolete inventory may be subjective and there may be management bias in arriving at this figure. The auditors may

request management to give written representations regarding the adequacy of the provision made in the financial statements. This is an accounting estimate and by nature is subjective and a risky area to audit and obtain evidence.

(ii) The audit risk with regards to subsequent events:

IAS 10 *Events after the reporting period* gives guidance to the preparers of financial statements on how to deal with adjusting and non-adjusting events. The standard provides that subsequent adjusting events should be adjusted in the financial statements while non-adjusting events should not result in adjustment of figures contained in the financial statements.

The audit risk with regards to subsequent events is that management may not treat adjusting and non-adjusting events correctly. Management may not make necessary adjustments for adjusting events or make adjustments for non-adjusting events for which no adjustment should have been made.

(iii) **Procedures to be performed:**

1. **Legal case against Hara Ltd:**
    - Enquire from the management of Hara Ltd on the likely outcome of the case and obtain all details relating to the case.
    - Evaluate the facts of the case in order to assess the likely outcome and possibly seek the opinion of the in-house legal experts.
    - Obtain written representations from management with regards to its view on the outcome and any provision made in the financial statements.
    - Consider any post year event regarding the matters, for example, if it is concluded before the date of the audit report and establish whether it is an adjusting event which may require adjusting the provision made at the period end.

2. **Obsolete inventory:**
    - Review the year-end inventory count instructions in order to determine whether all obsolete inventory was identified.
    - Review the provision for obsolescence made by management and evaluate the assumptions and calculations made for reasonableness.
    - Ensure that inventory has been written down arising from obsolete inventory.
    - Obtain written representations from management on the provision made for obsolescence.
    - Review the post year-end sales of obsolete inventory to determine the net realizable value and ensure adjustments are made if necessary.

- Obtain written representations from management regarding inventory at locations not visited and the provision for obsolescence made.

3. **Inventory destroyed in a fire:**
    - Confirm the determination of the value of inventory destroyed in the event that this is disclosed in the notes to the financial statements.
    - Confirm that the inventory figure at the period end is not adjusted as a result of the inventory destroyed by fire because this is a non-adjusting event.
    - If inventory figure had been adjusted as a result of the inventory destroyed by fire, request management to reverse the adjustment.

(iv) Audit procedures on subsequent events:

Auditors have a duty to carry out procedures on events that occur subsequent to the period end. Guidance is given in ISA 560 *Subsequent events.* The standard states that the auditor should perform audit procedures on events that help confirm figures contained in the financial statements.

In the case of the legal case against the company, a provision representing the outcome of the case will have been made and recorded in the financial statements. The auditors will look out for any event subsequent to the year- end which will help confirm the provision made. If, for example, the court determines the case and awards a specific amount in damages, this is the amount that should have been provided for in the financial statements. In this case there will be a need to adjust the amount provided in the accounts so that it equals the actual amount that will need to be paid.

SOLUTION THREE

(a) (i) Meaning of IT General Controls:

General controls are policies and procedures that an organization puts in place and that relate to many applications across the IT system and support the effective functioning of all application controls.

Meaning of IT Application controls:

These are manual or automated procedures that apply at an application level and they are aimed at ensuring the integrity of the accounting records. For example, controls specifically related to the inventory system are application controls.

(ii) Examples of general controls:

1. Approval of applications by the board:
   This requires that any new applications should be authorized by management before implementations.
2. Segregation of duties:
   This is a requirement that there should be a clear segregation of duties between the staff responsible for development of systems and those responsible for testing the systems
3. Testing of programs and program changes:
   This is the testing of programs by staff not involved in development and the testing should be in writing. This aims at preventing unauthorized changes to programs.
4. Prevention of unauthorized access through passwords:
   This means that access to programs will be on a need to have basis with a view to prevent unauthorized amendments to data in the computer system.
5. Acquisition and use of a generator as source of power:
   This control measure is meant to ensure continuity of operations and the use of computer systems when there is no power from the national grid. This will ensure that the company operations will continue and not be disrupted.

Examples of application controls:

1. Matching of Goods Received Notes (GRNs) to Purchases Orders:
   This is a control over the input into the inventory system so that no payment can be made for goods without a matching order or payment made for purchase orders made without a corresponding Goods Received Note (GRN).
2. Checking of processed Goods Received Notes (GRNs):
   This control aims at ensuring the completeness of processed documents. This will ensure that all Good Received Notes that have been raised have been processed in the application system.
3. Screen warnings for any data fields not completed:

The system will not allow proceeding with processing if key data is not entered.

4. Restricted authority to changing standing data:
   This aims at preventing fraud through unauthorized additions and deletions of standing inventory data. All changes to standing data are required to be evidenced in writing and should be authorized by a responsible official.

(b) (i) Limitations of internal controls which could result in fraud & error not being detected:

1. The controls that have been put in place may be overridden by management and therefore fail to meet the intended objective of having them in the first place.
2. It is possible for staff to collude and overlook the internal controls.
3. Controls may not exist in areas that may require them because controls usually apply to repetitive matters.
4. There is potential of human error in applying the control and so the control may fail to meet its objective.

(ii) Purpose of tests of controls:

Auditors carry out tests of control with the objective of determining whether the controls that have been put in place by management are operating as expected. If the evidence shows that the controls are operating as expected, the auditors may place reliance on the effectiveness of the control by limiting the extent of substantive procedures that they will perform. If on the other hand the results of the tests of controls suggest that the controls are not operating effectively, the auditors will obtain evidence by way of substantive procedures.

Examples of tests of control:

1. For a sample on applications developed during the year, examine authorization by the Board of Directors by reviewing the minutes of the board meeting.
2. Confirm that systems development and testing is done by different people by examining evidence of those responsible for development and testing of the system.
3. Test for access restrictions by attempting to access system using non-existent passwords.
4. For a sample of purchases made during the period, confirm that they were based on authorized purchase requisitions by examining the requisitions for appropriate authorization.
5. For a sample of purchases during the period confirm that three quotations were obtained before selecting the supplier. Do this by examining the quotations.
6. For a sample of purchases confirm that Goods Received Notes (GRNs) were raised and appropriately approved.
7. Confirm that all amendments to standing data are authorized in writing and approved by examining the authorization.

(iii) Audit procedures and related assertions for the figure of inventory:

1. Attend the annual inventory count and perform test counts and follow them to the client inventory listing – **Completeness & existence**
2. During inventory counts verify that inventory held for third parties is not included in the year-end inventory figure –**Rights and obligations.**
3. Obtain a copy of the inventory listing and agree the total to the general ledger and cast the listing to ensure that it is mathematically correct – **Accuracy & valuation**
4. Take note of the last Goods Received Notes (GRNs) before the year end and the first one after the year end and confirm that these have been included in the correct financial year – **Cut-off**
5. Review the inventory listing to ensure that inventory has been properly classified between raw materials and finished goods - **Classification**

SOLUTION FOUR:

(a) (i) Roles of management and the Board of Directors in running a company:

Management of Nyanga Ltd, headed by the Chief Executive Officer, carry the primary duty of running the company in the best interest of the shareholders. Management plays the role of stewardship and are responsible for day to day running of the company.

The board of Nyanga Ltd play the role of providing oversight on the way management fulfills its responsibility of being stewards of the shareholders. The board plays a supervisory role with the objective of ensuring that the company meets its intended objectives.

(ii) Composition of the proposed Board of Directors:

The proposed Board of Directors will comprise largely employees of company and these will be executive board members. Only two independent members will form part of the board. The ideal situation is that the board should contain a balance of executive and non-executive directors so that they can bring to bear their independence in contributing to the running of the company.

(iii) Importance of non-executive directors of Nyanga Ltd:

Non-executive directors have no other connection with Nyanga Ltd except that of being board members. The fact that they are non-executive suggests that they are independent of management and so they will be more objective in carrying out their responsibilities as board members. They will bring to bear their independence in performing their duties.

Roles of the non-executive directors:

- The non-executive directors will help enhance the credibility of the financial statements by asking key questions and holding executive management accountable.
- They comprise the nominating committee whose responsibility is to ensure that only credible people are appointed to the Board of Directors.
- They compose the remuneration committee whose main responsibility is to set the remuneration of executive directors.
- A senior non-executive director can be appointed from amongst the non-executive director who will be available to shareholders for any concerns that they may have.
- Through the audit committee, non-executive directors play a critical role of examining financial statements on behalf of the rest of the board and through this enhance the credibility of the financial statements.

(b) Impact on audit opinion and audit report of the three matters:

Nopani Ltd:
There is a material uncertainty with regards to the ability of Nopani Ltd continuing as a going concern. The financial statements have been prepared on a going concern basis. Management has made full disclosure of the fact that there is material uncertainty with regards to going concern in the notes to the financial statements. The appropriate audit opinion in this case is an unmodified opinion.

The impact on the audit report of issuing an unmodified opinion whilst there being material uncertainty is that a details of the material uncertainty will be included in the audit report in a paragraph titled 'Material Uncertainty Related to Going Concern.'

Lennox Ltd:
The matter of concern in this case is material and fundamental to users of financial statements in making decisions.

In accordance with ISA 706 (Revised) *Emphasis of matter paragraphs and other matter paragraphs in the independent auditor's report* the auditors can make mention of this matter in the Emphasis of Matter paragraph.

The matter has been appropriately accounted for and disclosed in the financial statements and the appropriate opinion in this case is an unmodified opinion.

The impact of the matter requiring emphasis is that the auditors will introduce a paragraph titles Emphasis of Matter in the audit report. In this paragraph, the auditor will make reference to the matter contained in the financial statements and also state that this is not a modification of the audit opinion.

Parrot Plc.
Parrot Plc. is a listed company and the matter in question is among those that were communicated to those charged with governance.

In view of the fact that the matters was resolved and appropriately accounted for and disclosed, the auditors will issue an unmodified audit opinion. This matter may be viewed as a key audit matter.
Since the matter in question is one of those that had been communicated to those charged with management during the course of the audit, in accordance with ISA 701 *Communicating key audit matters in the independent auditor's report* the auditors may highlight this is a separate

paragraph the Key Audit Matters Paragraph and give full details of the matter and how it was resolved.

SOLUTION FIVE

(a) Matters that may necessitate issue of new engagement letter to Kalima Ltd:

1. Change in the management of Kalima Ltd:
   The change in the management of Kalima Ltd can justify a change in the contents of the engagement letter. This is because the new management may misunderstand the contents of the original engagement letter. In order to avoid any misunderstanding it will be appropriate for the auditors to issue a new engagement letter as a result of change in management.
2. The fact that Kalima Ltd has been acquired by the American parent company suggests that there is a change in ownership of the company. It will be appropriate in this case to issue a new letter of engagement so that there will be a common understanding of the terms of the engagement with the new owners.
3. Change in the scope of work:
   The new owners of Kalima Ltd have indicated that auditors providing audit services to any of its subsidiaries should not at the same time provide non audit services.
   This is a clear change in the scope of work of the auditors who will no longer provide non audit services to Kalima Ltd. The scope of work will have been contained in the engagement letter and this change in scope will necessitate the issuance of a new engagement letter containing the new terms of the engagement.
4. The requirement to audit the interim financial statements:
   The reporting requirements of Kalima Ltd have changed requiring an audit of the interim financial statements which was not the case previously. This is enough grounds to change the contents of the engagement letter on reappointment as auditors of Kalima Ltd.

(b) (i) Distinction between using the work of internal audit and direct assistance:

Using the work of internal audit refers to the auditor relying on the work that internal audit does in a client company to determine the extent of audit procedures that will be carried out. In this case the auditors are relying on the effectiveness of the work performed by the internal audit department.

Further, the effectiveness of internal audit will have an impact on the assessment of the control systems in a client company and also the assessment of risk. The auditor's assessment or risk and controls will determine the nature and extent of procedures that will be undertaken.

Direct Assistance is where the external auditors use the services of internal audit for the purpose of the audit and involves the external auditors assigning the work to the internal auditors and supervising them.

(ii) Matters to consider whether to use work of Internal Audit of Strawberry Plc.:

1. **The independence of internal audit:**
Consideration will be made on the reporting lines of the internal audit department of Strawberry Plc. Best practice recommends that internal audit should report to the audit committee on matters pertaining to its work.

In the case of Strawberry Plc., the Chief internal Auditor reports to the Finance Manager who may influence the internal audit on how it performs its work.

2. **The qualifications and competences of internal audit:**
Although there is no requirement that internal auditors should possess specific qualifications, usually they hold accounting qualifications. The people supervising the department should have the skills and competences to do so.

The composition of the internal audit department of Strawberry Plc. appears to be balanced with only two audit assistants who were recently recruited and are non-accountants. These two can be trained by the other members of the internal audit department.

3. **Planning, performance and review of work:**
Documentation, review and supervision of the work carried out will be considered when deciding whether or not to use the work of internal audit.

Although the Audit Assistants prepare documentation of the work that they do, it would appear the work is not regularly reviewed by the Audit Senior. He only asks for the working papers when he has an issue of concern. Further, the Chief Internal Auditor does not review the working papers and relies on the work done by the Audit Senior.

4. **Management's attitude on recommendations of internal audit:**
Management's response to the observations and recommendations made by internal audit will be considered when deciding whether to use the work of internal audit.

Recommendation based on evaluation:

Based on the evaluations above, there are a number of serious lapses namely:

- The reporting of the Chief Internal Auditor to the Finance manager is inappropriate because it compromises the independence and objectivity of internal audit.
- The lack of close supervision and review of the working papers of the Audit Assistants by the Audit Senior is a weakness which brings into doubt the quality of the work that is performed.
- The attitude of management to implement the recommendations of internal audit is a poor signal of the seriousness management attaches to internal controls.

Arising from the above, observations, it will not be appropriate for the auditors of Strawberry Plc. to rely on the work of internal audit of Strawberry Plc. The auditors will require to perform substantive audit procedures without placing reliance on the work done by the internal audit.

(iii) Meaning of professional skepticism:

Professional skepticism is an attitude that includes having a questioning mind, being alert to conditions which may indicate possible misstatements due to error or fraud and also subjecting audit evidence to a critical assessment rather than taking the evidence on face value.

Meaning of professional judgment:

This is the application of relevant training, knowledge and experience of audit team members in making informed decisions about the courses of action that should be taken in the circumstances of the audit engagement. It is used at all stages of the audit including the planning stage.

Areas where professional judgment may be applied:

- Professional judgment is used by the auditor when determining materiality for the financial statements as a whole and performance materiality.
- When deciding on the nature, timing and extent of audit procedures that should be carried out.

END OF SUGGESTED SOLUTIONS

CHARTERED ACCOUNTANT ZAMBIA

APPLICATION LEVEL

CA 2.4: TAXATION

THURSDAY 18 MARCH 2021

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 for paper CA 2.4 – Taxation (2020 Examinations)

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K39,600	first K39,600	0%
K39,601 to 49,200	next K9,600	25%
K49,201 to K74,400	next K25,200	30%
Over K74,400		37.5%

Income from farming for individuals

K1 to K39,600	first K39,600	0%
Over K39,600		10%

Company Income Tax rates

On income from manufacturing and other	35%
On income from farming	10%
On income of Banks and other Financial Institutions	35%
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 –	Plant used normally	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%

Presumptive Tax for Transporters

Seating capacity	Tax per annum	Tax per day
	K	K
From 64 passengers and over	10,800	29.60
From 50 to 63 passengers	9,000	24.70
From 36 to 49 passengers	7,200	19.70
From 22 to 35 passengers	5,400	14.80
From 18 to 21 passengers	3,600	9.90
From 12 to 17 passengers	1,800	4.90
Less than 12 passengers and taxis	900	2.40

Property Transfer Tax

Rate of Tax on Realised Value of Land, Land and Buildings and shares	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 transfer of Intellectual Property	5%

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 below 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 below 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 below 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	30,274	0	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, **with spark ignition internal combustion piston engine**	30,697	13,302	24,119	10,452
Panel Vans				
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	21,926	9,501	10,963	4,751
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	28,504	12,352	13,156	5,701
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	10,817	8,293
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	19,461	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

Ayew plc is a Zambian resident company engaged in manufacturing. In January 2020, the directors of Ayew plc estimated the provisional taxable profit of the company for the tax year 2020 to be K7,800,000.

However, in March 2020, the directors revised the provisional taxable profit to K5,100,000, following the loss of a major customer to one of the company's major competitors.

The following extract of the statement of profit or loss has been obtained from the accounts of Ayew Plc, showing the financial results of the company for the year ended 31 December 2020:

	K	K
Gross profit		841,600,600
Add:		
Investment income (note 1)		134,000,000
Profit on disposal of pool cars and machinery		16,250,000
		991,850,600
Wages and salaries (note 2)	12,302,500	
Entertainment expenses (note 3)	30,250,000	
Legal and professional fees(note 4)	267,600,000	
Irrecoverable debts(note 5)	132,750,000	
Miscellaneous expenses(note 6)	541,804,000	
		(984,706,500)
Profit before tax		7,144,100

The following information is available:

Note 1: Investment income

Investment income included the following:

- Rental income of K68,000,000 (gross)
- Treasury bill interest of K17,000,000 (net)
- Dividends of K31,000,000 (net)
- Copyright royalties of K18,000,000 (gross).

Withholding tax in each case was paid on the appropriate due dates.

Note 2: Wages and salaries

Included in this figure is an annual salary for the Cost Accountant of K340,000, employee's pension benefits of K670,000 and employee's funeral grants of K170,000. The company has accommodated the Cost Accountant in a company owned house which currently has a market value of K600,000. The balance relates to the salaries of the company's employees.

Note 3: Entertainment expenses

Entertainment expenses which included K17,250,000 incurred in entertaining major customers, K8,250,000 incurred on entertaining employees at the end of year party and K4,750,000 incurred on a special dinner for the company's major suppliers.

Note 4: Professional and legal fees

Professional and legal fees included the following:

- Issue costs for K1 preference shares of K11,750,000
- Legal fees for trade debt collection of K13,200,000
- Legal fees for recovery of loans from former employees of K8,250,000
- An action brought against a supplier for breach of contract of K16,000,000
- Legal fees for acquisition of new lease of business premises of K8,400,000
- Accountancy, audit and taxation fees of K210,000,000

Note 5: Irrecoverable debts

Irrecoverable debts expenses included trade debts written off K140,000,000 decrease in specific provision K23,000,000 increase in general provision K9,250,000 loans to former employees written off K44,000,000 and trade debts previously written off now recovered K37,500,000.

Note 6: Miscellaneous expenses

Miscellaneous expenses included:

- Distribution expenses of K354,700,000
- Depreciation of tangible non-current assets of K143,800,000
- Amortisation of intangible assets of K27,000,000
- Advertising expenses of K13,300,000.
- Gifts to employees (Food hampers costing K200 each) amounting to K4,000
- Gifts to customers (Ayew Plc branded T-shirts costing K200 each) amounting to K3,000,000

Note 7: Implements, plant and equipment

On 1 January 2020, company held the following implements, plant and machinery qualifying for capital allowances:

Asset	Original Cost K	Income Tax Value On 1 January 2020
Mitsubishi Canter Trucks	200,000,000	150,000,000
Old Pool Cars	80,000,000	16,000,000
Machinery	90,000,000	45,000,000

The old pool cars were sold for K12,500,000 while the Machinery was sold for K100,000,000 during the year ended 31 December 2020. During the year, the company bought new pool cars at a cost of K350,000,000.

On 1 January 2020, the company held buildings which were constructed and brought into use in the previous tax year (i.e. the tax year 2019) at a total cost of K1,250,000,000. This comprised land with a cost of K250,000,000, general offices of K90,000,000, staff canteen with a cost of K60,000,000 and factory building with a cost of K850,000,000.

Required:

(a) State the date when Ayew Plc was required to submit the return of provisional income tax in respect of the tax year 2020 and explain the consequences of submitting the return late. (2 marks)

(b) Compute the amount of the provisional income tax paid by Ayew Plc during the tax year 2020, stating the due date for each instalment. (5 marks)

(c) Calculate the following values for Ayew Plc for the tax year 2020:

  (i) The capital allowances on buildings. (6 marks)

  (ii) The capital allowances on implements, plant and machinery. (6 marks)

(d) Compute the final taxable business profit after capital allowances for Ayew Plc for the tax year 2020. (11 marks)

(e) Compute the Income tax payable by the company for the charge year 2020. You should explain the consequences of paying this tax late. (10 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

Masompe Mubitelela was employed at a Zambian resident company for many years. He retired on 30 September 2020, on attaining the normal retirement age. His conditions of service were as follows:

Salary per annum	K180,000
Housing allowance per annum	30% of the basic salary
Lunch allowance	2% of the basic salary

During the tax year 2020, the company paid college fees for his children amounting to K18,000 and utility expenses amounting to K1,200 per month in respect of the house occupied by Masompe up to the date of retirement. In May 2020, Masompe received a long-term service award comprising cash amounting to K8,000 and an LED HD Television set valued at K8,000.

Throughout his employment he was provided with a personal to holder car with a cylinder capacity of 2500cc. The company paid for all motor car running expenses during the tax year 2020 up the time of retirement which amounted to K2,000 per month. His private use of the motor car for the tax year 2020 is estimated to be 60%.

On retirement, he received accrued leave pay of K13,500, a repatriation allowance of K45,000, a pension of K360,000, and a service bonus of K165,000. He only became eligible for this bonus on his retirement on 30 September 2020.

During the tax year 2020, Masompe paid medical insurance premiums of K300 per month, professional subscription relevant to the duties of his employment of K2,000. Donation to an approved public benefit organisation of K3,500.

Pay As You Earn of K63,600 was deducted from his gross emoluments by the employer in the tax year 2020.

He received the following income from his investments in Zambia:

	K
Fixed deposit interest from a commercial bank	12,750
Rental income	54,000
Copyright royalties	30,600
Dividends from Unique Plc (a company listed on the LuSE)	4,500
Dividends from Itex Ltd (a private limited manufacturing company)	16,200

All of the above investment income represents the actual amounts received by Masompe in each case.

Required:

(a) Explain the tax treatment of the following investment income received by Masompe from Zambian sources in the tax year 2020:

(i)	Fixed deposit interest	(1 mark)
(ii)	Rental income	(1 mark)
(iii)	Royalties	(1 mark)
(iv)	Dividends from Unique plc	(1 mark)
(v)	Dividends from Itex Ltd	(1 mark)

(b) Compute the income tax payable by Masompe for the tax year 2020. **You should clearly indicate in your computation, by the use of zero (0), any benefits provided to Masompe in the tax year 2020, which are not taxable.**

(15 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

Kamitondo Ltd is engaged in manufacturing operations and prepares accounts to 31 December. In January 2020, the directors estimated the provisional taxable profit for the tax year 2020 to be K1,340,000.

The directors submitted the return of provisional income tax on 9 May 2020, whilst the instalments of provisional income tax relating to the tax year 2020 were paid on the following dates:

Provisional Income Tax for Quarter ended:	**Date paid:**
31 March 2020	10 May 2020
30 June 2020	5 July 2020
30 September 2020	31 December 2020
31 December 2020	31 December 2020

At the end of the tax year 2019, the directors computed the balance of income tax payable for the tax year 2019 of K84,000. The company paid the balance of income tax payable for the tax year 2019 on 21 October 2020. The directors also submitted the self-assessment return for the tax year 2019 on this date.

You should assume that the BOZ discount rate is 11.50% per annum where applicable.

Required:

(a) Compute the amount of provisional income tax paid by Kamitondo Ltd in the tax year 2020 and state the amount of each instalment paid. (2 marks)

(b) State the dates when provisional income tax relating to the tax year 2020 and the balance of income tax for the tax year 2019 were paid late and compute the amount of penalties and interest arising on late payment of each amount. (10 marks)

(c) State the dates when the provisional income tax return in relation to the tax year 2020 and the self-assessment return for the tax year 2019 were submitted late and compute the amount of penalties arising on the late submission of each return.

(6 marks)

(d) Explain any two (2) advantages associated with the provisional income tax system.

(2 marks)

[Total: 20 Marks]

QUESTION FOUR

Jordan Chipepo, a Zambian resident individual commenced a farming business on 1 May 2019. He prepared his first financial statements for a period ending 31 December 2020 reporting a profit before capital allowances amounting to K834,000. He will prepare financial statements annually to 31 December thereafter.

He entered into the following capital transactions during the period ended 31 December 2020:

Date of transaction		Cost/(proceeds)
		K
5 May 2019	Bought ploughs	20,000
10 May 2019	Bought Toyota Camry car	60,000
30 June 2019	Expenditure on clearing and Stumping	15,000
30 October 2019	Bought Computers	22,000
2 January 2020	Bought Combine Harvester	70,000
31 March 2020	Constructed 2 dwelling houses	46,000
2 May 2020	Bought Delivery Van	80,000
14 July 2020	Sold Toyota Camry car	(70,000)
20 July 2020	Bought Nissan Tiida car	75,000
20 September 2020	Incurred Water Conservation	26,000

It has been agreed with the Commissioner General that Mr. Chipepo has private has private use in the Toyota Camry car and Nissan Tiida car of 30%.

Required:

(a) Explain the basis of assessment for profits made in the first period of trading, identifying the relevant tax years, when the profits will be assessed to income tax. (4 marks)

(b) Calculate the final amount of the taxable business profits for each relevant tax year. (16 marks)

[Total: 20 Marks]

QUESTION FIVE

HPC Limited is a Zambian resident company that is registered for Value Added Tax purposes. The company deals in both taxable and exempt supplies. The following information relates to HPC Limited's transactions for the month of October 2020:

(1) Sales invoices totalling K1,200,000 were issued to customers. 80% of the total sales value are standard-rated supplies. The balance consists of exempt supplies.

(2) Out Of the standard-rated supplies, K45,000 worth of goods were returned by the customers for which HPC Limited issued the credit notes.

(3) HPC Limited made purchases amounting to K600,000. Included in purchases figure are exempt purchases amounting to K90,000. 25% of the standard-rated purchases were made from suppliers who are not registered for VAT purposes.

(4) The company incurred the following standard-rated expenses for the month of October 2020:

	K
Entertainment expenses	50,000
Telephone expenses	36,000
Internet expenses	32,000
Petrol	60,000
Diesel	87,000
General operating expenses	101,000
	366,000

(5) On 20 October 2020, the company acquired Air conditioners at a cost of K64,960 (VAT Inclusive) and a delivery truck at a cost of K94,540 (VAT Inclusive).
(6) It has been agreed with the Commissioner General that 20% of all expenses and assets relate to exempt supplies.
(7) Unless stated otherwise all the figures above are exclusive of VAT.
(8) HPC Limited submitted the VAT return and paid the VAT for the month of October 2020 on 14 December 2020.

Required:

(a) Explain the differences between zero-rated supplies and exempt supplies. (3 marks)

(b) Calculate the amount of VAT payable by HPC Limited for the month of October 2020. You should clearly indicate in your computation, any item on which VAT is not chargeable or claimable by the use of a zero (0). (10 marks)

(c) State the due date when HPC Limited should have submitted the VAT return and paid the VAT for the month of October 2020. (2 marks)

(d) Compute the following for HPC Ltd:

(i) The amount of penalties arising for submitting the VAT return for the month of October 2020 late. (3 marks)

(ii) The amount of penalties arising for paying the amount of VAT due for the month of October 2020 late. (2 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.4 SUGGESTED SOLUTION

SOLUTION ONE

(a) (1) The due date is 31 March 2020.

(2) If the return is submitted late then the penalty will be 2000 (K600) penalty units per month or part thereof.

(b) Provisional income tax

	K
Revised estimated taxable profit	5,100,000
Provisional income tax (K5,100,000 x 35%) =	1,785,000

Provisional income tax payable pay quarter

K1,785,000 /4
K446,250

Instalment	Quarter ended	Due date	Amount payable K
1st	31 March 2020	10 April 2020	446,250
2nd	30 June 2020	10 July 2020	446,250
3rd	30 September 2020	10 October 2020	446,250
4th	31 December 2020	10 January 2021	446,250

(c) (i) AYEW PLC
QUALIFYING COST FOR INDUSTRIAL BUILDING ALLOWANCE (IBA) PURPOSES

The total construction cost is K1,250,000,000 – K250,000,000 = K1,000,000,000.
(1 mark)
10% of K1,000,000,000 is K100,000,000.

The cost of the general offices is K90,000,000 which is below 10% of the qualifying expenditure and will therefore be classified as an industrial building.
(1 mark)

COMPUTATION OF CAPITAL ALLOWANCES ON BUILDINGS	K
General offices	
wear and tear allowance	
(K90,000,000 x 5%)	4,500,000
Staff canteen	
wear and tear allowance	
K60,000,000 x 5%	3,000,000
Factory	
wear and tear allowances	
K850,000,000 x 5%	42,500,000
Total capital allowances	50,000,000

(ii) AYEW PLC

COMPUTATION OF CAPITAL ALLOWANCES ON IMPLEMENTS, PLANT AND MACHINERY

	K	K
Mitsubishi Canter Trucks		
Wear and tear allowance		
(K200,000,000 x 25%)		50,000,000
Old Pool Cars		
Income Tax Value b/f	16,000,000	
Disposal proceeds	(12,500,000)	
Balancing Allowance		3,500,000
Machinery		
Income Tax Value b/f	45,000,000	
Disposal (restricted to original cost)	(90,000,000)	
Balancing charge		(45,000,000)
New Pool cars		
Wear and tear allowance		
20% x K350,000,000		70,000,000
Total capital allowances		78,500,000

(d) AYEW PLC

COMPUTATION OF TAXABLE BUSINESS PROFITS

	K	K
Profit before tax		7,144,100
Accommodation benefit		
(30% x K340,000)	102,000	
Entertaining major customers	17,250,000	
Entertaining suppliers	4,750,000	
Legal fees - issue of preference shares	11,750,000	
Fees for recovery of loans from former employees	8,250,000	
Legal Fees - acquisition of new lease of premises	8,400,000	
Increase in general provision	9,250,000	
Loans to former employees written off	44,000,000	
Depreciation	143,800,000	
Amortization	27,000,000	
Gifts to customers of branded T-shirts	3,000,000	
		277,552,000
Less		284,696,100
Rental income	68,000,000	
Treasury bill interest	17,000,000	
Dividends	31,000,000	
Copyright royalties	18,000,000	
Profit on disposal of pool cars and machinery	16,250,000	
Capital allowances on buildings	50,000,000	
Capital allowances on implements, plant & machinery	78,500,000	
		(278,750,000)
Taxable business profits		5,946,100

(e) AYEW PLC

COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2020

	K
Business profit	5,946,100
Treasury bill interest(K17,000,000 x 100/85)	20,000,000
Copyright royalties	18,000,000
Taxable income	43,946,100
Company income tax K43,946,100 x 35%	15,381,135
Less tax already paid	
Provisional income tax	(1,785,000)
WHT on :	
- Treasury bill interest (K20,000 x 15%)	(3,000,000)
- Copyright royalties (K18,000 x15%)	(2,700,000)
Income tax payable	7,896,135

The following are the consequences of paying the tax late

(i) The company will be charged a penalty of 5% of the unpaid tax of K7,896,135 per month or part thereof.
(1 mark)

(ii) Interest on overdue tax will be charged at a rate of 2% plus the Bank of Zambia discount rate.

SOLUTION TWO

(a) (i) Fixed Deposit Interest

Fixed deposit interest from the Zambian bank will not be subjected to any withholding tax because fixed deposit interest from a Zambian Bank received by an individual is exempt from tax.

(ii) Rental income

Rental income will be subjected to WHT at the rate of 10% amounting to K6,000 (10/90 x K54,000) which will be a final tax. Masompe will not be assessed to further tax on the rental income.

(iii) Copyright Royalties

The royalties will be subjected to WHT at the rate of 15% amounting to K5,400 (15/85 x K30,600) and will therefore be subjected to further income tax since WHT is not the final tax.

(iv) Dividends from Unique plc

Dividends received by Masompe from the LuSE listed company will be subjected to WHT at the rate of 0% which is a final tax and therefore will not be subjected to any further tax.

(v) Dividends from Itex Ltd

Dividends received by Masompe from the private limited company will be subjected to WHT at the rate of 15% deducted at source which is a final tax and therefore Masompe will not be subjected to any further tax on this income. I.e K16,200 x 15/85 = K2,859.

(b) MASOMPE

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2020

	K	K
Salary		
(K180,000 x 9/12)		135,000
Housing allowance		
(K180,000 x 30%) x 9/12		40,500
Lunch allowance		
(K180,000 x 2%) x 9/12		2,700
College fees		18,000
Utility expenses (K1,200 x 9)		10,800
Accrued leave pay		13,500
Long term service award -cash		8,000
Long term service award - TV		0
Personal to holder Moto car benefit		0
Motor car running expenses		0
Repatriation allowance		0

Pension		0
Service bonus		0
Gross emoluments		228,500
Less allowable deductions		
Donation to approved public benefit organisations	3,500	
Professional subscriptions	2,000	
		(5,500)
Taxable emoluments		223,000
Investment income		
Royalties (K30,600 x 100/85)		36,000
		259,000
Income Tax		
On first K39,600 x 0%		0
On next K9,600 x 25%		2,400
On next K25,200 x 30%		7,560
On excess (K259,000 – K74,400) x 37.5%		69,225
Tax liability		79,185
Less tax already paid		
WHT on royalties (K36,000 x15%)		(5,400)
PAYE		(63,600)
Income Tax payable		10,185

SOLUTION THREE

(a) Provisional income tax
(K1,340,000 x 35%) K469,000

Amount of each instalment paid:

K469,000 /4 K117,250

(b) COMPUTATION OF INTEREST AND PENALTIES PAYABLE

The relevant dates and penalties and interest arising on late payment of income tax are

Tax paid late	**Due Date**	**Date Paid**	**Paid Late by**	**Penalty**	**Interest**
Provisional Income Tax for first Quarter	10 April 2020	10 May 2020	1 month (30 days)	5% xK117,250 =K5,862.50	13.50% x K117,250 x 1/12 = K1,319
Provisional Income Tax for third Quarter	10 Oct 2020	31 Dec 2020	2 months, and 21 days (82 days)	5% x 117,250 x 3 =K17,587.50	13.50% x K117,250 x 82/365 = K3,556
Balance of actual income tax for tax year 2019	21 Jun 2020	21 Oct 2020	4 months (122 days)	5% x K84,000 x 4 = K16,800	13.50% K84,000 x 4/12 = K3,780

WORKINGS

(1) The applicable rate of interest is:

BOZ Discount rate	11.50%
Plus	2.00%
	13.50%

(c) The tax returns that were filed (submitted) late are as follows:

(1) The return of provisional income for the tax year 2020

This return must have been filed by 31 March 2020, but was submitted on 9 may 2020. It was therefore submitted late by 1 month and 9 days late.

The penalty is chargeable for companies at the rate of 2,000 penalty units (K600) per month or part thereof. The penalty chargeable is therefore:

K600 x 2 = K1,200 or 4000 penalty units(2000 x 2)

(2) The self-assessment income tax return for the tax year 2020.

This return must have been filed by 21 June 2020 but was filed on 20 October 2020. It was therefore delayed by four months.

The penalty for companies is chargeable at the rate of 2000 penalty units per month or part thereof. The penalty chargeable is therefore K600 x 4 = K2,400 (2,000x 4 = 8000 penalty units).

(d) The main **advantages** of the provisional tax system are:

(1) There is inflow of revenue to the Government throughout the year.

(2) The burden on the part of the taxpayer is reduced as the huge amount of tax will not be payable at once at the end of the charge year.

SOLUTION FOUR

(a) Since Chipepo prepared his first financial statements for a period of 20 months, commencement rules will be used. The period should be split into two notional accounting periods.

The first period will consist of less than 12 months from 1 May 2019 to 31 December 2019. i.e. K834,000 x 8/20 = K333,600

The second period will consist of exactly 12 months from 1 January 2020 to 31 December 2020. I.e K834,000 x 12/20 = K500,400.

The basis of assessment for both periods is the current year basis. I.e the tax year 2019 for the period ended 31 December 2019 and tax year 2020 for the period ended 31 December 2020.

(b) Jordan Chipepo
Final taxable business profits for the tax years

	2019	2020
	K	K
Business profits	333,600	500,400
Capital allowances (w)	(48,900)	(163,600)
Taxable business profits	284,700	336,800

Workings
Capital allowances for the tax years

2019	Cost/ITV	Capital allowance
	K	K
Ploughs		
Cost	20,000	
Wear & Tear @100%	(20,000)	20,000
ITV c/f	Nil	
Toyota Camry car		
Cost	60,000	
Wear & Tear @20%	(12,000) x 70%	8,400
ITV c/f	48,000	
Clearing and Stumping		
Cost	15,000	
Farm works allowance @100%	(15,000)	15,000
ITV c/f	Nil	
Computers		
Cost	22,000	

Wear & Tear @25%	(5,500)	5,500	
ITV c/f	16,500		
Total capital allowances			48,900

2020

Toyota Camry car			
ITV b/f	48,000		
Disposal proceeds (restricted to cost)	(60,000)		
Balancing charge	(12,000) x 70%		(8,400)
Computes			
ITV b/f	16,500		
Wear & Tear @25%	(5,500)	5,500	
ITV c/f	11,000		
Dwelling Houses			
Cost (restricted to K20,000 each)	40,000		
Farm improvement allowance @100%	(40,000)		40,000
ITV c/f	Nil		
Combine Harvester			
Cost	70,000		
Wear & Tear @100%	(70,000)	70,000	
ITV c/f	Nil		
Delivery Van			
Cost	80,000		
Wear & Tear @25%	(20,000)	20,000	
ITV c/f	60,000		
Nissan Tiida			
Cost	75,000		
Wear & Tear @20%	(15,000) x 70%	10,500	
ITV c/f	60,000		
Water Coinservation			
Cost	26,000		
Farm works allowance @100%	(26,000)		26,000
ITV c/f	Nil		
Total capital allowances			163,600

SOLUTION FIVE

(a) Differences between zero-rated supplies and exempt supplies:

(1) A person dealing in zero-rated supplies may be permitted to register for value added tax whereas a person dealing in exempt supplies cannot register for VAT

(2) A person dealing in zero-rated supplies may claim input VAT for as long as it is recoverable whereas a person dealing in exempt supplies cannot claim input VAT.

(3) A person dealing in zero-rated supplies is a taxable person for VAT purposes whereas a person dealing in exempt supplies is not a taxable person.

(b) HPC Limited

VAT payable for the month of October 2020

Output VAT	K		K	
Exempt supplies				0
Standard-rated supplies (K1,200,000 x 80% x 16%)				153,600
Sales return (K45,000 x 16%)				(7,200)
				146,400
Input VAT				
Exempt purchases		0		
Standard-rated purchases				
(K600,000 – K90,000) x 75% x 16%	61,200			
Entertainment expenses		0		
Telephone expenses	0			
Internet expenses		0		
Petrol	0			
Diesel: K87,000 x 16% x 90% x 80%		10,022		
General expenses: K101,000 x 16% x 80%	12,928			
Air Conditioners		0		
Delivery truck: K94,540 x 4/29 x 80%		10,432		
				(94,582)
VAT payable			51,818	

(c) The due dates are as follows:

(1) The VAT return for the month of October 2020 was due for submission on 18 November 2020.
(1 mark)

(2) The VAT payment was also due on 18 November 2020.

(d) (i) PENALTIES FOR LATE SUBMISSION OF VAT RETURN

The VAT return should have been submitted on 16 November but was submitted on 14th December 2020. The return was therefore submitted late by 29 days.

The penalty for late submission of VAT returns is the higher of:

(1) 1000 penalty units (K300) per day,

1000 penalty units x 27 days = 27,000 penalty units; or

K300 x 27 = K8,100; and

(2) 0.5% of the VAT payable per day.

K51,818 x 0.5% = K259.09 per day x 27 days

= K6,995.43

The penalty is therefore K8,700 being the higher amount.

(ii) PENALTIES LATE PAYMENT OF THE VAT DUE

The penalty for late payment of VAT is 0.5% of the VAT due per month.

The amount of the penalty payable is therefore:

= K51,818 x 0.5% x 27 days = K6,995.43

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 19 MARCH 2021

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.

<u>QUESTION ONE</u>

PAF Plc is considering an opportunity to produce an innovative computer data storage device with a big capacity. It is expected that after four (4) years new technology will emerge rendering the device redundant. In addition, it is expected that after four years the environment will become uncertain. The annual demands are as follows:

Year	1	2	3	4
Demand units ('000)	100	250	200	90

The initial cost of this investment is K2 million payable immediately. The estimated selling price at current price is K15 per unit and unit variable costs is 30% of the selling price in the first year. Operational costs are expected to increase annually by 8% from year two. Selling price is expected to increase by 11% per year. Annual incremental fixed costs are estimated at K1million from the first year. PAF Plc has 11.8 million 50 ngwee shares trading at 250 ngwee each and bonds with book value of K11 million. The market value of bond is K1,190 per K1000 par value. The company's after-tax cost of debt is 9.6% and asset beta is 0.91. PAF Plc's capital structure is unlikely to change significantly following the proposed investment.

KLH Co manufactures computer electronic parts including the production of a data storage device similar to the one being considered by PAF Plc. KLH Co's overall equity beta is 1.35, and it is estimated that the equivalent equity beta for production of computer storage device is 1.10. KLH Co has 300 million 25 ngwee shares in issue trading at 220 ngwee each. Its debt finance consists of variable rate loans redeemable in seven (7) years. KLH Plc is financed by 75% equity and 25% debt. The risk free rate is 5% and market return is 15%. Both companies pay annual corporation tax at a rate of 30%.

Required:

(a) Calculate the current weighted average cost of capital and the project specific cost of capital for PAF Plc. (12 marks)

(b) Evaluate the proposed investment in the computer data storage device using the net present value method. (14 marks)

(c) Calculate the Internal Rate of Return (IRR) of the proposed project and advise if it is financially acceptable. (7 marks)

(d) Explain how the environmental uncertainty may impact the investment decision. (7 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

(a) Phiri Limited is considering factoring its accounts. It sells on credit only and its collection period is not more than 60 days. The firm has been experiencing severe cash flow problems lately and is advised to consider factoring its debtors. An institution is prepared to offer the following factoring terms:

75% on each invoice will be paid immediately and interest will be charged at 1% above the current prime rate of 18.5%. Service fee will be charged at 1.5% of total sales. Suppliers offer the firm a discount at 2% for cash settlement. Sales subject to discount amount to 40% of its total sales. If the firm were to factor it is believed that it will save the firm approximately K35,000 in expenses. Its total sales per annum are K4 million.

Required:

Evaluate whether Phiri Ltd should accept the offer from the factoring company.

(12 marks)

(b) James Banda Ltd has one million ordinary shares in issue, 500,000 6% preference shares in issue, and 200 9% bonds outstanding, par value K1 000 each. The equity shares currently sell for K2 each and have a beta of 1.0 and preference shares currently sell for K3 per share, and the bonds have 10 years to maturity and the yield-to-maturity is 12% (YTM). The market risk premium is 8%, T-bills are yielding 7%, and James Banda's tax rate is 30%.

Required:

Calculate the current weighted average cost of capital. (8 marks)

[Total: 20 Marks]

QUESTION THREE

(a) A holding company, Antelope Holdings Plc (AHP) is considering acquiring a commercial bank, Investment Bank Plc, whose annual dividend is due for payment in a few days. Financial information for the two companies is as follows:

	AHP	Investment Bank
Number of ordinary shares	10 million	5 million
Ordinary share price (ex div basis)	K4.00	K3.30
Earnings per share	50 ngwee	40 ngwee
Proposed pay-out ratio		60%
Dividend per share a year ago	40 ngwee	23.3 ngwee
Dividend per share two years ago	30 ngwee	22 ngwee
Equity beta	1.3	1.4
Other relevant financial information		
Average sector price/earnings ratio	10	10
Risk-free rate of return	4.6%	4.6%
Return on the market	10.6%	10.6%

Required:

Determine the value of Investment Bank Plc using the following methods:

(i) dividend growth model;

(ii) Price/earnings ratio method;

(iii) Explain the significance to AHP, of the values you have calculated, in comparison to the current market value of Investment Bank Plc. (10 marks)

(b) Antelope Holdings Plc (AHP) has in issue bonds with nominal values of K100 and a coupon rate of 8%, which are redeemable at a 5% premium in five (5) years' time. The current market value of each bond is K85. Alternatively, each bond may be converted on that date into 20 ordinary shares of the company.

The current ordinary share price of AHP is expected to grow at a rate of 7% annually for the foreseeable future. The company has a corporate tax rate of 30% per annum.

Required:

Calculate the following values for each K100 convertible bond:

(i) Conversion value;

(ii) Cost of the convertible bond to Antelope Holdings Plc (IRR);

(iii) Conversion premium and explain its significance. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

The following information relates to two companies ZC Limited and AB Limited.

ZC Limited

ZC limited is the only steel manufacturing company based in Lusaka. ZC Ltd allows its customers 30 Days credit period from the date of the invoice. Customers who pay within 12 days of the invoice are given a 2% discount. The prevailing short term deposit interest rates are 12% per annum. The company recently issued an invoice of K200,000 to one of its customers, Mwenzi Limited.

ZC limited is now facing competition from a steel manufacturing company which has recently been formed in Lusaka. The management is concerned that this new entrant into the manufacturing industry will bring more competition and possibly force profits to fall due to increased supply of steel on the market.

AB Limited

AB limited is a supermarket chain store whose headquarters are in Kitwe. It has branches in Ndola, Kapiri and Kabwe.

Required:

(a) Advise Mwenzi Ltd whether or not they should take up the discount. (4 marks)

(b) Explain the reasons for the differences in the working capital policies of a manufacturing company like ZC Limited and a retail firm like AB Limited. (4 marks)

(c) Explain six barriers to entry that may discourage new entrants in to the steel manufacturing industry. (12 marks)

[**Total: 20 Marks]**

QUESTION FIVE

TELCOM Inc. has over the past two (2) years invested K1 million in research and development of a sophisticated microchip. The company has made a break through and production is expected to commence immediately. The initial investment required to commence production immediately is K125 million with the scrap value of fixed assets expected to be 4% of the initial investment. Only 96% of the initial cost of investment will qualify for capital allowances. The company has no plans to continue with the technology after five (5) years because new advanced microchips are expected. The annual production and sales of the microchip is projected to be 200,000 units over the project life span of five (5) years. Each microchip is expected to be sold for K500 in the first year of operations, thereafter, it is expected that the selling price of each microchip will increase in line with the working capital. TELCOM Inc. expects to earn an average annual contribution of 45%.

Additional investment in working capital of K10 million will be required at the start of the first year of operation and is expected to increase subsequently by 7% per annum. The company depreciates its non-current assets using straight line method. Depreciation was included in the variable costs when projecting contribution. An annual incremental fixed cost as a result of the production of the microchips is projected at K25 million.

Other Information:

- After-tax cost of capital is 10%.
- Annual corporate tax is 30% payable one year in arrears.
- Capital allowances rate is 20% per annum on a reducing balance basis.

Required:

(a) Evaluate the proposed investment in the production of microchips using the net present value method. (13 marks)

(b) Calculate the sensitivity of the investment to changes in sales and contribution. Provide comments on your findings. (7 marks)

[Total: 20 Marks]

END OF PAPER

Formula Sheet

Economic order quantity

$$= \sqrt{\frac{2C_0D}{C_H}}$$

Miller – Orr Model

$$\text{Return point} = \text{Lower limit} + (\frac{1}{3} \text{x spread})$$

$$\text{Spread} = 3\left[\frac{\frac{3}{4} \text{ x transaction cost x variance of cash flows}}{\text{interest rate}}\right]^{\frac{1}{3}}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i(E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_0(1+g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1-T)$$

The Fisher formula

$$(1+i) = (1+r)(1+h)$$

Purchasing power parity and interest rate parity

$$s_1 = S_0 x \frac{(1+h_c)}{(1+h_b)} \qquad f_0 = s_0 x \frac{(1+i_c)}{(1+i_b)}$$

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	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA2.5 SUGGESTED SOLUTIONS

SOLUTION ONE

Current Cost of Capital

Market Values	K'm	%
Equity (11.8m x 2.5)	29.5	69
Debt (K11m x 1190/1000)	13.09	31
Total	42.59	100

Cost of equity:
Ba= Be x Ve/Ve+Vd(1-t)
0.91=Be x 0.69/0.69+0.31(1-0.3)
Be= 1.2

Ke = 5% + 1.2(15%-5%)
Ke=17%

WACC = 17% x 0.69 + 9.6% x 0.31
= 14.71%

PROJECT SPECIFIC

Ungears
Ba=1.10 x 0.75/0.75+0.25(1-0.3)
Ba=0.89

Re-gear
0.89=Be x 0.69/0.69+0.31(1-0.3)
Be=1.17

Ke=5%+1.17(15%-5%)
= 16.7%

WACC = 16.7% x 0.69 + 9.6% x 0.31
= 14.5% round off to 15%

b) NPV					
Year	**0**	**1**	**2**	**3**	**4**
Sales		**1,665,000**	**4,620,375**	**4,102,893**	**2,049,395**
Variable costs		**499,500**	**1,348,650**	**1,165,234**	**566,304**
Fixed costs		**1,000,000**	**1,080,000**	**1,166,400**	**1,259,712**
Taxable cash flow		**165,500**	**2,191,725**	**1,771,259**	**223,380**
Tax@30%		**49,650**	**657,518**	**531,378**	**67,014**
Initial Investment	**2,000,000**	-	-	-	-
Net cash flows	**2,000,000**	**115,850**	**1,534,208**	**1,239,882**	**156,366**
Dsicount@15%	**1**	**0.87**	**0.756**	**0.658**	**0.572**
Present Values	**2,000,000**	**100,790**	**1,159,861**	**815,842**	**89,441**
NPV	**165,934**				
c) IRR					
Year	**0**	**1**	**2**	**3**	**4**
Net cash flows	**2,000,000.0**	**115,850.0**	**1,534,207.5**	**1,239,881.6**	**156,365.7**
Discount@20%	**1.0**	**0.833**	**0.694**	**0.579**	**0.482**
Present Values	**2,000,000.0**	**96,503.1**	**1,064,740.0**	**717,891.4**	**75,368.3**
NPV	**(45,497.3)**				
IRR = 15%+ 165,934/165,934+45,497.3 (20%-15%)					
IRR=18.92%					
Workings					
Year	**1**	**2**	**3**	**4**	
Selling price	**17**	**18**	**21**	**23**	
Units	**100,000**	**250,000**	**200,000**	**90,000**	
Sales	**1,665,000**	**4,620,375**	**4,102,893**	**2,049,395**	
Variable cost per unit	**5.00**	**5.39**	**5.83**	**6.29**	
Units	**100,000**	**250,000**	**200,000**	**90,000**	
Variable costs	**499,500.00**	**1,348,650**	**1,165,234**	**566,304**	

- Environmental uncertainty depends on the degree of **complexity** and the degree of **stability** present. A large part of business strategy and making investment decisions consists of making the organisation's interaction with its environment as efficient as possible. In the context of strategic management, therefore, the degree of **uncertainty** in the environment is of great importance. The greater the uncertainty, the greater the strategic challenge. Uncertainty depends on **complexity** and **stability**: the more complex or dynamic the environment is, the more uncertain it is.

(a) An uncomplicated, stable environment can be dealt with as a matter of routine. The security and efficiency of a mechanistic or bureaucratic approach to management can be exploited. Since the future is likely to resemble the past, extrapolation from history is a satisfactory way of preparing for future events.

(b) Where the environment is dynamic, the management approach must emphasize response to rapid change. Scenario planning, intuition and a learning approach are all valid features of such a response.

(c) Complexity makes an environment difficult to understand. Diversity of operations and technological advance contribute to complexity. Complexity is difficult to analyse. It may be that it is best dealt with by a combination of experience and extensive decentralization.

SOLUTION TWO

a)

Total sales per annum = K4 million
Average collection period = 60 days

Therefore average on hand = 4 000 000 x 60/365

= K657 534
Amount that can be drawn = K657 534 x 75/100
Interest = 18.5 + 1% = 19.5%

Finance charges 493 150 x 19.5% = 96 164

Service fees K4m x 1.5% = 60 000

Actual cost of factoring = K156 164

Cash discount for early settlement = 4 000 000 x 40 x 2

100 100

= K32 000

Expense saved = K35 000

= K67 000

Therefore net cost of factoring = 156 164 – 67 000

= K89 164

The effective cost of factoring = 89 164 x 100 = 18.1%

493 150

The effective cost of factoring is lower than the straight interest rate charged. Therefore, the factoring is approved.

b)

Calculation

Interest on Bonds = 1000 x 9

100

= K90

No of periods = K10 periods

YTM = 12%

Po = 200 {90 x PVAIF 10 Years, 12% + 1000 x PVIF 10 YEARS, 12 %}

= 200 {90 X 5.6502 + 1 000 X 0.3220}

= 200 { 508.52 + 322}

= 200 {830.52}

= K166 104

Market Value

Ordinary shares 1000 000 x 2 = 2 000 000

Preference shares 500 000 x 3 = 1 500 000

Bonds = 166 104

Proportion

o/s 2 000 000 = 0.546

- 666 104

p/s = 0.409

B = 0.046

Cost

o/s using CAPM

Re = Rf + B (Rm-Rf)

= 7 + 1.0 (8)

= 15% (Rm-Rf) = Risk premium.

p/s

$$Rf = \frac{D}{Po}$$

$$= \frac{0.06 \times 100}{3}$$

$= 2\%$

$Rd = 12\% (1-0.3)$

$= 8.4\%$

WACC	=PROPORTION X COST	
O/S	= 0.546 X 15	= 8.19
P/S	= 0.409 X 2	= 0.82
D	= 0.046X8.4	= 0.39
		9.40%

SOLUTION THREE

(a) (i) <u>Price/earnings ratio method valuation</u>

Earnings per share of Investment Bank Ltd = 40n
Average sector price/earnings ratio = 10
Implied value of ordinary share of Investment Bank = 40 x 10 = K4.00
Number of ordinary shares = 5 million
Value of Investment Bank = 4.00 x 5m = **<u>K20 million</u>**

(ii) <u>Dividend growth model</u>

Earnings per share of Investment Bank Ltd = 40n
payout ratio = 60%
Proposed dividend of Investment Bank Plc is therefore = 40 x 0.6 = 24n per share

If the future dividend growth rate is expected to continue the historical trend in dividends per share, the historic dividend growth rate can be used as a substitute for the expected future dividend growth rate in the dividend growth model.

Average geometric dividend growth rate over the last two years = $(24/22)^{1/2}$ = <u>1.045 or 4.5%.</u> (Alternatively, dividend growth rates over the last two years were 3% (24/23.3) and 6% (23.3/22), with an arithmetic average of (6 + 3)/2 = 4.5%)
<u>Cost of equity</u> of Investment Bank Ltd using the capital asset pricing model (CAPM) = 4.6 + 1.4 x (10.6 – 4.6) = 4.6 + (1.4 x 6) = <u>13%</u>

Value of ordinary share from dividend growth model = (24 x 1.045)/(0.13 – 0.045) = K2.95. Value of Investment Bank Ltd = 2.95 x 5m = K14.75 million

(iii)
The current market capitalization of Investment Bank Ltd is K16.5m (K3.30 x 5m).The price/earnings ratio value of the company is higher than this at K20m = (0.4X10)5m, using the sector average price/earnings ratio. Investment Bank Plc's own price/earnings ratio is 8.25 (3.30/0.4). The difference between the two price/earnings ratios may indicate scope for improving the financial performance of Investment Bank following its acquisition. If Antelope Holdings Plc has the managerial skills to effect this improvement, the company and its shareholders may be able to benefit as a result of the acquisition.

The dividend growth model value is lower than the current market capitalization at K14.75m. This represents a minimum value that Investment Bank shareholders will accept if Antelope Holdings Plc makes an offer to buy their shares. In reality they would want more than this as an inducement to sell. The current market capitalization of Investment Bank of K16m may reflect the belief of the stock market that a takeover bid for the company is imminent and, depending on its efficiency, may indicate a fair price for Investment Bank's shares, at least on a marginal trading basis.

Alternatively, either the cost of equity or the expected dividend growth rate used in the dividend growth model calculation could be inaccurate, or the difference between the two values may be due to a degree of inefficiency in the stock market.

(b)(i) Conversion value of each convertible bond:

Expected share price in five years' time = 4.00 x $(1.07)^5$ = K5.61
Conversion value = 5.61 x 20 = **K112.20**

Compared with redemption value at a 5% premium = K100 X 1 .05 = **K105**, conversion will be preferred, therefore the company will receive K112.20.

(b)(ii) The Cost of Debt is derived by computing the IRR as follows:

Year	Item	**Cash flow (K)**	**DF@ 10%**	**PV(K)**	**DF@ 5%**	PV
0	Market Value	(85)	1	(85)	1	(85)
1-5	Interest Payments 8 x (1- 0.3)	5.6	3.791	21.23	4.329	24.24
5	Conversion Value	112.20	0.621	69.68	0.784	87.96
				5.91		**27.2**

IRR = 5% + [27.2/(27.2 – 5.91) X (10% - 5%)] = **11.4%**

(iii) Calculation of conversion premium of each convertible bond:

Current Conversion value = 4.00 x 20 = <u>K80.00</u>

Conversion premium = current market value – current conversion value
= K85 – 80.00 = **<u>K5.00</u>**

This is often expressed on a per share basis, i.e. 5.00/20 = K0.25 per share. The premium accepted by investors in the convertible bond will depend on Antelope Holdings Plc 's growth potential and prospects for an increase in its share price. The conversion premium has the effect on conversion of bonds of reducing the number of new ordinary shares issued.

SOLUTION FOUR

Workings

a)

Cash discount 2/100*k200000=K4000

Investment amount K200000-K4000=K196000

Period 30days -12days=18days

Interest K196000 * 18/365 *12/100=K1160

Mwenzi Should therefore take the discount as the discount K4000 is higher than the interest that could be earned by investing the funds k1160.

b)

ZC Limited will need to invest in steel and may be owed large amounts of money by its customers. AB Limited will have a large inventory of goods for resale but will have low accounts receivable.

ZC limited will therefore need a carefully considered policy on the management of accounts receivable which will need to reflect its credit policy of its close competitors.

AB limited will be more concerned with inventory management and will probably consider methods like the economic order quantity to minimize the inventory costs.

c)

(i) Economies of Scale.

High fixed costs often imply a high breakeven point and a high breakeven point depends on a large volume of sales. If the market as a whole is not growing, the new entrant has to capture a large slice of the market from existing competitors.

(ii) Product differentiation. ZC limited may have built up a good brand image and strong customer loyalty over a long period of time.

(iii) Capital requirements. High capital requirements in the steel manufacturing industry will present a strong barrier against new entrants depending on the riskiness of the investment.

(iv) Knowledge requirements. Steel manufacturing may require specialist knowledge and skills which can be a barrier to entry.

(v) Access to distribution channels. Distribution channels carry a manufacturer's product to the end buyer. New distribution channels are difficult to establish and existing distribution channels hard to gain access to.

(vi)Possible cost advantages of ZC Limited, independent of economies of scale. These could include:

a) Patent rights

b) Experience and know

c) Government subsidies and regulations.

d) Favored access to raw materials.

(vii) Switching costs. These refer to the time, money or convenience that the retailer or distributor may incur by switching from ZC Limited steel to the new manufacturers steel.

SOLUTION FIVE

Caculation of net present value

Year	1	2	3	4	5	6
	K'm	K'm	K'm	K'm	K'm	K'm
Selling price (7% p.a)	500	535	572.45	612.52	655.4	-
Units	200,000	200,000	200,000	200,000	200,000	
Sales	100	107	114.49	122.5	131.08	-
Contribution @45%	45	48.15	51.52	55.13	58.99	-
Add: depreciation	23.04	23.04	23.04	23.04	23.04	-
Increamental f/cost	(25)	(25)	(25)	(25)	(25)	-
Cashflow before tax	43.04	46.19	49.56	53.17	57.03	-
Tax@30%	-	(12.91)	(13.86)	(14.87)	(15.95)	(17.11)
Working capital	(0.7)	(0.75)	(0.8)	(0.86)	13.11	-
Scrap value	-	-	-	-	4.8	-
Capital allowances	-	7.2	5.76	4.61	3.69	13.31
Net cash flows	42.34	39.73	40.66	42.05	62.68	(3.8)
Discount @10%	0.909	0.826	0.751	0.683	0.621	0.564
Present values	38.49	32.82	30.54	28.72	38.92	(2.14)

		K'm
Total present values	=	167.35
Initial cost	=	(125)
Working capital	=	(10)
NPV		**32.35**

The project gives a positive NPV of K32.35million, therefore it's financially viable and can be undertaken.

Workings:

- Depreciation = (120 – 4.8)/5 = 23.04

- Working capital

Year	0	1	3	4	5
Increase by 7%p.a	10	10.7	12.25	13.11	-
Increamental	-	(0.7)	(0.75)	(0.86)	13.11

- Capital allowances;

Yr	WDV	CA@20%	Tax relief@30%	Yr available
1	120	24	7.2	2
2	96	19.2	5.76	3
3	76.8	15.36	4.61	4
4	61.44	12.29	3.69	5
5	(49.15 – 4.8)	44.35	13.31	6

b) Sensitivity analysis

Year	1	2	3	4	5
	K'm	K'm	K'm	K'm	K'm
Sales	100	107	114.49	122.5	131.08
Discount@10%	0.909	0.826	0.751	0.683	0.621
Present values	90.9	88.38	85.98	83.67	81.4

Sensitivity of sales = 32.35/430.33 X 100% = 7.52%

Year	1	2	3	4	5
	K'm	K'm	K'm	K'm	K'm
Contribution	68.04	71.19	74.56	78.17	82.03
Discount@10%	0.909	0.826	0.751	0.683	0.621
Present values	61.85	58.8	55.7	53.39	50.94

Sensitivity of contribution = 32.35/280.68 X 100% = 11.53%

The NPV is more sensitive to the sales as the sales would need to change by 7.52% to make the project non-viable compared to 11.53% for contribution.

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 15 MARCH 2021

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 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 following are the consolidated financial statements of Bola Plc group.

Consolidated statement of profit or loss and other comprehensive income for the year ended 31 May 2021:

	K'000
Revenue	1,416.00
Cost of sales	(531.00)
Gross profit	885.00
Other income	24.00
Distribution cost	(410.00)
Administrative cost	(318.00)
Finance cost	(54.00)
Share of associate profit after tax	72.00
Profit before tax	199.00
Taxation	(79.00)
Profit for the period	120.00
Other comprehensive income	
Net actuarial loss	(5.00)
Total comprehensive Income	115.00
Profit for the period attributable to:	
Equity holders of parent	96.00
Non-controlling interest	24.00
	120.00
Total comprehensive income attributable to:	
Equity holders of parent	91.00
Non-controlling interest	24.00
	115.00

Consolidated statement of financial position as at 31 May 2021:

	2021	2020
	K'000	K'000
Assets		
Non-current		
Property, plant and equipment	862.00	819.00
Goodwill	105.00	129.00
Investment in associate	270.00	180.00
Investment in Tasha	12.00	-
	1,249.00	1,128.00
Current		
Inventory	176.00	103.00
Trade Receivable	168.00	175.00
Cash & cash equivalents	-	80.00
	344.00	358.00
Total Assets	**1,593.00**	**1,486.00**
Equity and liabilities		
Equity		
Equity shares of K0.50 each	396.00	264.00
Share premium	79.00	19.00
Retained earnings	102.00	29.00
	577.00	312.00
Non-controlling interests	126.00	139.00
Total Equity	**703.00**	**451.00**
Liabilities		
Non-current		
Employee benefits	268.00	357.00
Deferred tax	21.00	34.00
Secured bank loan	304.00	378.00
	593.00	769.00
Current		
Trade payables	156.00	161.00
Cash & cash equivalents	18.00	-
Taxation	35.00	57.00
Finance cost payable	88.00	48.00
	297.00	266.00
Total Liabilities	**890.00**	**1,035.00**
Total equity and liabilities	**1,593.00**	**1,486.00**

The following information is relevant:

(1) On 31 May 2021, Bola Plc disposed of 70% of its equity interests in Tasha Plc for a cash consideration of K119,000. Bola Plc acquired 80% of Tasha Plc four (4) years ago for a cash consideration of K120,000. The fair values of its net assets and non-controlling interests at that date were K135,000 and K30,000 respectively. The 10% retained equity interests in Tasha Plc was fair valued at K12,000 as at 31 May 2021.

The fair value of net assets of Tasha Plc as at 31 May 2021 was K123,000. This is summarised below:

	K'000
Property, plant and equipment	96
Trade receivables	40
Bank	(13)
	123

Profit on disposal of 70% equity interests in Tasha Plc was included in administrative costs. There was no acquisition of subsidiary during the year to 31 May 2021.

(2) Bola Plc acquired 40% of the equity shares in Salala Plc on 1 January 2021 for a cash consideration of K68,000. Bola Plc has significant influence in Salala Plc. Bola Plc's investment in associated companies was impaired by K11,000 for the year to 31 May 2021.

No investments in associated companies were disposed of during the year.

(3) During the year, Bola Plc disposed of equipment with a carrying value of K46,000 for cash consideration of K70,000. There were no other disposals of non–current assets.

Depreciation charge for the year amounted to K55,000. This was charged to cost of sales. Further, profit on disposal of equipment was taken to other income.

(4) During the year to 31 May 2021, Bola Plc net pension expenses of K67,000 were charged to administrative costs . Pension benefits of K23,000 were paid out during the year.

Net actuarial loss was taken to share premium.

(5) Consolidated goodwill was impaired during the year to 31 May 2021. This related to the 80% subsidiary acquired by Bola Plc five (5) years' ago. Goodwill in Tasha Plc had not been impaired since acquisition.

(6) During the year to 31 May 2021, Bola Plc issued equity shares for cash and paid dividends of K197,000 and K23,000 respectively.

(7) It is Bola Plc's group policy to value non-controlling interests using fair value of net assets at acquisition.

The group accountant of Bola Plc is thinking of cutting down the number of fully qualified accountants from 10 to 1 and replacing them with non-accountants in order to reduce their wage bill significantly. The group accountant is however not sure of the ethical implications of such decision.

Required:

(a) Calculate the profit or loss on disposal of the 70% equity interests in Tasha Plc included in consolidated financial statements for the year ended 31 May 2021. (5 marks)

(b) Prepare a consolidated statement of cash flows of Bola Plc Group using the indirect method, for the year ending 31 May 2021 in accordance with the requirements of IAS 7' *Statement of cash flows*'. (27 marks)

(c) Evaluate the ethical and professional issues which may arise from the group accountant's decision to cut down the number of qualified accountants from 10 to 1 and replacing them with non-accountants in order to reduce costs. (8 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

Mizyu plc is in the food processing industry. It buys various livestock and crop products from farmers and processes these into final food products for human consumption and other non-food by-products which it delivers to various retailers in its distribution network within Zambia. Mizyu plc is a successful brand. The name is associated with high quality products.

The directors of Mizyu plc require advice in respect of a number of issues relating to the financial statements for the year ended 31 December 2020.

Issue one

The company offers a warranty on one of its products, the Chompie, to the retailers. Mizyu Plc refunds retailers the full sales price for units of the Chompie which final customers return to the retailers within one year after the purchase date on the basis that the customer was not fully satisfied. Consequently, Mizyu has taken up an insurance policy to insurance against the full cost of refunds to the retailers. The warranty commenced on 1 January 2019. Total sales for the Chompie were 2 million units in the year to 31 December 2019 and 3 million units in the year to 31 December 2020. In both years, the average price per unit of the Chompie was K1.80. The probability that any one unit of a Chompie is returned was initially estimated at 10% but revised to only 8% during the year to 31 December 2020. Of the total sales during the year to 31 December 2019, 50,000 units were returned during that year but within the warranty period. During the year to 31 December 2020, 20,000 units have been returned relating to the sales during the same period, all within the warranty period. All counter claims from the insurance company in respect of claims during the two years to 31 December 2020 have been fully settled. Mizyu Plc directors require advice on amounts to be reported in its financial statements for the year to 31 December 2020 in respect of the warranty scheme. (7 marks)

Issue two

Mizyu Plc entered into a 10 year lease contract in which it is leasing food processing equipment from Yobe Plc on 1 January 2020. Mizyu paid an initial deposit on the lease amounting to K2 million. Lease rentals have been agreed at K2.5 million per annum over an initial period of 5 years and thereafter at K3 million per annum payable annually in arrears. The lease can be terminated at any time after the first six years without any penalty. It is Mizyu Plc's view that freehold ownership of the equipment is more economical than leasing with all factors considered and that the company will have adequate cash resources to acquire its own equipment in 6 years' time. The equipment required installation at a cost of K0.5 million and will require dismantling for handover to the lessor at the end of the lease term. Dismantling costs have been estimated at K1 million to be paid at the end of year six (6). Mizyu Plc's cost of capital is 10% whilst its incremental borrowing rate at 1 January 2020 was 8%. Mizyu Plc directors require advice on amounts to be reported in the financial statements for the year to 31 December 2020 in respect the lease.

(7 marks)

Issue three
On 1 January 2020, Mizyu Plc sold a property in order to raise funds for its operations but immediately leased back the property under a three year lease. The property whose carrying amount on 1 January 2020 was K2.2 million was sold at its fair value amounting to K4 million. The property's remaining useful economic life at 1 January 2020 was 10 years. Lease rentals have been agreed at K0.6 million per annum in arrears. Mizyu Plc's cost of capital is 10% whilst its incremental borrowing rate at 1 January 2020 was 8%. Mizyu Plc Directors require advice on amounts to be reported in the financial statements for the year to 31 December 2020 in respect of the sale and leaseback. The sell has commercial substance in accordance with IFRS 15 Recognition of Revenue from Contracts with Customers. (6 marks)

Required:

Advise the Directors of Mizyu Plc on the issues above stating the appropriate accounting treatment in respect of each in accordance with IFRS and computing amounts to report in the financial statements for the year to 31 December 2020 where appropriate (marks for each item are indicated within the scenario and will be given for explanation of issues involved in addition to computations). **[Total: 20 Marks]**

QUESTION THREE

Nkhula Plc is an investment holding company whose main objective is to maximise shareholder wealth by investing in a portfolio of investees from different industries in order to diversify risk at the same time carefully selecting highly profitable businesses.

Nkhula Plc was involved in a number of transactions during the year to 31 December 2020 for which the directors require advice on their accounting treatment in finalising the financial statements for the period.

Transaction one

On 1 January 2020, Nkhula Plc issued 1 million K100 10% loan notes at par. Issue costs amounted to 1% of the gross issue proceeds. The general market interest rate on 1 January 2020 was 10% (and was also equal to the interest rate specific to Nkhula Plc reflecting the company's credit rating). The loan notes pay interest on 31 December each year over their term and are redeemable at par on 31 December 2022. The issue was aimed at financing a portfolio of investment assets whose returns are normally assessed with reference to changes in fair value. Consequently, in order to avert an accounting mismatch or measurement basis for those assets and the loan notes liability, Nkhula Plc has designated the loan notes as a fair value through profit or loss (FVTPL) in accordance with IFRS 9. The fair value (after paying the interest due on that date) of each loan note at 31 December 2020 was K101 whilst the general market interest rate at that date was 10.5%.

(10 marks)

Transaction two

The company purchased 2 million K100 10% loan notes in Lyn Property Developers Plc (LPD Plc), a property development company at a premium of 5%. Broker's fees paid by Nkhula Plc on the transaction amounted to 1% of the purchase price. The notes pay interest on 31 December each year over their three year term to maturity and are redeemable at par. The effective rate of return on the loan notes over their term to maturity is 7.7%. Nkhula's business model is to normally hold investments in property development companies' bonds to maturity. (5 marks)

Transaction three

Nkhula acquired 5 million K50 ordinary shares in Zanga Plc on 1 July 2020 at a price of K80 per share. Broker fees paid by Nkhula Plc in respect of the purchase amounted to 1% of the purchase cost. Nkhula Plc aims to hold these shares on a long term basis (they are not for trading). The shares were quoted at K98 each on 31 December 2020. Nkhula Plc has made an irrevocable election relating to equity financial assets that are not for trading in respect of the shares. (5 marks)

Required:

Advise the Directors of Nkhula Plc on the issues above stating the appropriate accounting treatment in respect of each in accordance with IFRS and computing amounts to report in the financial statements for the year to 31 December 2020 where appropriate (marks for each item are indicated within the scenario and will be given for explanation of issues involved in addition to computations). **[Total: 20 Marks]**

QUESTION FOUR

Mwenya Plc is a retail sector entity that owns a chain of supermarket stores located across Zambia. The company prides itself in that it has a highly qualified and motivated human resource. Indeed the human resource of the company has been a source of market advantage over its competitors. For remuneration and management purposes, the company has two categories of employees or staff, senior management who are on fixed term contracts and the lower level employees who are on pensionable terms of service. The Directors are not sure of how to account for certain transactions relating to employee remuneration and therefore are seeking advice.

Transaction one

On 1 October 2018, Mwenya Plc entered in an agreement with 10 senior managers under which the managers would receive a cash bonus after serving for four (4) years commencing 1 January 2019. The bonus would be based on the increase in the Mwenya Plc share price between 1 October 2021 and 31 December 2022. Each manager would receive a cash bonus equal to the increase in the price per share above K10.0 multiplied by one hundred thousand shares. One manager resigned during the year to 31 December 2019 and a further two managers resigned during the year to 31 December 2020. Each Mwenya Plc share was trading at K9.5 on 1 October 2018, at K9.6 on 1 January 2019, at K9.0 on 31 December 2019 and at K10.5 on 31 December 2020. As at 31 December 2019, Mwenya Plc had estimated that three more managers would resign over the next three years. As at 31 December 2020, Mwenya Plc estimates that only one manager is likely to resign over the next two (2) years. The directors are seeking advice on amounts to be reported in the financial statements for the year ended 31 December 2020 in respect of the bonus arrangement.

(10 marks)

Transaction two

Senior managers normally serve five year contracts of service at the end of which the contracts are renewed depending on requirements of either party. Mwenya had 15 senior managers serving under the 5 year contract arrangement during the year to 31 December 2020. The average annual salary for the 15 managers was K600,000 per manager. In addition to the salary, payable on a monthly basis, the managers are also entitled to an end of contract gratuity computed as a percentage of the accumulated salary over the contract duration and paid at the end of the contract. Up to 31 December 2019, gratuity was computed at 20% of the manager's accumulated salary over the contract duration. The gratuity percentage was revised during the year to 31 December 2020 to 25%. The revised percentage applied retrospectively to the accumulated salary earned prior to 1 January 2020 in respect of managers in service at 1 January 2020. The total accumulated salary earned prior to 1 January 2020 to which the revised rate applied retrospectively amounted K24 million of which half is for contracts that expired on 31 December 2020 (5 managers) and the other half for contracts that will expire on 31 December 2022 (10 managers). The end of contract gratuity for the 5 managers whose contracts expired on 31 December 2020 was settled on that date. The applicable discount rate where discounting is required is 10%. The Directors are seeking advice on amounts to be reported in the financial statements for the year ended 31 December 2020 in respect of the gratuity scheme. (10 marks)

Required:

Advise the Directors of Mwenya Plc on the issues above stating the appropriate accounting treatment in respect of each in accordance with IFRS and computing amounts to report in the financial statements for the year to 31 December 2020 where appropriate (marks for each item are indicated within the scenario and will be given for explanation of issues involved in addition to computations).

[Total: 20 Marks]

QUESTION FIVE

You are a Financial Analyst serving a portfolio of clients who invest mainly in public limited companies. One of your clients is a potential investor in Miyachi Plc Group.

Miyachi Plc Group operates through three strategic business units which the group regards as investment centres for which periodic information is provided to the Chief Executive Officer and the Board of Directors. These are Farming, Retail and Transport. Each of the three business units meets the criteria for determining reportable segments in accordance with IFRS 8 Operating segments and Miyachi Plc has therefore provided the segment information below for each segment separately. The Retail segment was established three years ago having funded it through debt. However, the segment has experienced rapid revenue growth and has become a significant competitor in its sector.

The client who is a potential investor in Miyachi Plc has drawn your attention to the following information from Miyachi Plc Group's latest financial statements.

Extract from Miyachi Plc financial statements – Note on Operating Segments:

	Farming		Retail		Transport		Group	
	2023	2022	2023	2022	2023	2022	2023	2022
	K'm	K'm	K'm	K'm	K'm	K'm	K'm	K'm
Revenue	653	642	208	199	98	63	959	904
Segment Result	169	168	68	62	6	(16)	243	214
Unallocated Expenses							(35)	(37)
Operating Profit							208	177
Finance Costs							(22)	(21)
Share of Associate's Profit	16	12					16	12
Profit Before Tax							202	168
Income Tax Expense							(65)	(49)
Profit for the year							137	119
Segment Operating Assets	805	796	306	287	437	422	1,548	1,505
Investment in Associates	85	84					85	84
Unallocated Assets							573	522
Total Assets							2,206	2,111
Segment Liabilities	345	349	176	178	197	184	718	711
Unallocated Liabilities							37	12

Total Liabilities	755	723

Further, the client has made the following comments regarding the note above:

'I thought I had understood what you told me about consolidated financial statements; the idea of aggregating several pieces of information to provide an overall view of the activities of the group makes sense. But the segment report seems to be trying to disaggregate the information all over again. What is the point of doing this? Does this information actually tell me anything useful about Miyachi Plc Group? I know from talking to you previously that financial information does not always tell us everything we need to know. So, what are the limitations of the segment information above?'

Required:

(a) Explain the usefulness of the disaggregated segmental information in the notes to the consolidated financial statements. (3 marks)

(b) Analyse and Interpret Miyachi Plc's segmental disclosures for the benefit of your client, explaining your findings in a brief report. (12 marks)

(c) Explain the general limitations of segmental reporting, illustrating your answer where applicable with references to Miyachi Plc's segment information note above.

(5 marks)

[Total: 20 Marks]

END OF PAPER

C.A 3.1 SUGGESTED SOLUTIONS

SOLUTION ONE

a) **Disposal of 70% Equity in Tasha Plc**

	K'000	K'000
Consideration received		119
FV of retained interests (10%)		12
FV of NCI at disposal 30 + [(123 - 135) x 30%]		26.4
FV of net assets at disposal	123	
Goodwill (120+30) - 135	15	
		(138)
Profit on disposal		**19.4**

Bola Plc Group

b) **Consolidated Statement of Cashflow for the year ended 31 May 2018**

	K'000	K'000
Cash flow from operating activities		
Profit before tax		199.00
Adjustments:		
Share of associate profit		(72.00)
Finance cost expense		54.00
Depreciation charge		55.00
Net pension expense		67.00
Profit on disposal of equipment		(24.00)
Profit on disposal of subsidiary **(part a)**		(19.40)
Goodwill impairment **W2**		9.00
Increase in inventory (103 - 176)		(73.00)
Increase in trade receivables (175 - 40 -168)		(33.00)
Decrease in trade payables (156 - 161)		(5.00)
Cash generated from operations		157.60
Pension contribution paid **W6**		(161.00)
Taxation paid **W4**		(114.00)
Interest paid **W7**		(14.00)
Net cash outflow from operating activities		**(131.40)**
Cash flow from investing activities		
Disposal of shares in Tasha Plc [119 - (-13)]	132.00	
Purchase of shares in Salala Plc	(68.00)	
Purchase of PPE **W1**	(240.00)	
Proceeds from disposal of PPE	70.00	
Dividends received from associates	50.00	
Net cash outflow from investing activities		**(56.00)**
Cashflow from financing activities		
Proceeds from issue of shares	197.00	

Dividends paid to NCI **W5**	(10.60)	
Other dividends paid	(23.00)	
Loan repayment (304 - 378)	(74.00)	
Net cash inflow from financing activities		**89.40**
Decrease in cash & cash equivalents		**(98.00)**
Opening cash & cash equivalents		80.00
Closing cash & cash equivalents		(18.00)

c) Ethical issues

The group accountant should consider the new recruits' ability to perform required tasks in accordance with International Accounting Standards, International financial Reporting Standards and other generally accepted accounting practices. The new recruits may not have the technical knowledge needed to perform duties of accountants. This is because there are non – accountants. Moreover, the accounting profession like others is specialised and one needs appropriate training and experience to become a qualified accountant. Engaging non – accountants would reduce employment related costs of the group in the short term. However, in the long – run the overall costs to the group would be enormous. This is because the financial statements prepared by non – accountants would be full of errors and materially misstated. They would not be prepared in accordance with relevant accounting standards and practices. This would also lead to the group financial statements not meeting the objective of financial reporting according to the IASB Conceptual Framework which is to provide information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity'. The company would also not comply with the Zambia Institute of Chartered Accountants (ZICA) regulations by employing non – members.

WORKINGS

W1 Property, plant & equipment

	K'000
Opening balance	819.00
Depreciation charge	(55.00)
Disposal of Tasha Plc	(96.00)
Disposal of equipment	(46.00)
Acquisition (bal. fig.)	**240.00**
Closing balance	862.00

W2 Goodwill

	K'000
Opening balance	129.00
Disposal of Tasha Plc	(15.00)
Impairment (bal fig.)	**(9.00)**
Closing balance	105.00

W3 Investment in associate

	K'000
Opening balance	180.00
Acquisition - Salala Plc	68.00
Share of profit (includes impairment loss of 11 on associate)	72.00
Dividends received (bal. fig)	**(50.00)**
Closing balance	270.00

W4 Taxation

	K'000
Opening balance (34 + 57)	91.00
Profit or loss	79.00
Cash paid (bal. fig)	**(114.00)**
Closing balance (21+35)	56.00

W5 Non - Controlling Interest

	K'000
Opening balance	139.00
Disposal of Tasha Plc **(Part a)**	(26.40)
Share of Total CI	24.00
Dividends paid (Bal. fig)	**(10.60)**
Closing balance	126.00

W6 Employee Benefits

	K'000
Opening balance	357.00
Net actuarial loss	5.00
Net pension expense	67.00
Pension benefits paid (23 - 23)	-
Contribution paid (Bal. fig)	**(161.00)**
Closing balance	268.00

W7 Interest Payable

	K'000
Opening balance	48.00
Profit or loss	54.00
Cash paid (Bal.fig)	**(14.00)**
Closing balance	88.00

SOLUTION TWO

Warranty Scheme relating to the Chompie Sales:

The issue is whether Mizyu must recognise a provision in respect of the warranty claims by the retailers.

The extent to which a provision must be recognised is based on requirements of IAS 37 Provisions, Contingent Liabilities and Contingent Assets. IAS 37 requires that an entity must recognise a provision only if three criteria are met:

1. There an existing or present obligation to transfer economic benefits in future.
2. It is probable that future economic benefits will be transferred.
3. The amount can be reliably measured

In this case, the obligation arises from the promise to refund returns in respect of transactions which have already taken place, hence criterion 1. above appears to be met. Though the probability of returning individual units is less than probable, it is probable that some units out of the total sales will be returned. Criterion 2. above, therefore, appears to be met. The amount of provision can be based on the expected number of units that will be returned. Assuming the estimated probabilities are realistic, criterion 3. above has, therefore, also been met. In accordance with IAS 37, taking up the insurance policy to counter any warranty claims should not justify the non recognition of the provisions. Any asset that may arise from the insurance policy must be accounted for separately.

In the SFP at 31.12.2020, Mizyu must report a current liability in respect of Warranty Provisions based on the number of units out of the total sales units for the year ended 31.12020 which is expected to be returned in future (y/e 31.12.2021). This is computed as follows:

Total expected returns in respect of 2020 sales	3millionX8%	240,000
Less units already returned by 31.12.2020		(20,000)
Expected future returns (units)		220,000

Therefore, the warranty provision to report in the SFP at 31.12.2020 must be K396,000 (ie 220,000XK1.8 per unit). **1/2**

In the SPLOCI for the year to 31.12.2020, Mizyu will report within its operating costs in P/L an expense arising from running the warranty comprising the following:

Provision liability at 31.12.2020	396,000
Less opening provision (b/d from 31.12.2019) 150,000(w) XK1.8	(270,000)
Increase in provision	126,000
Refunds paid for claims in y/e 31.12.2020 20,000 X 1.8	36,000
Insurance Claims in y/e 31.12.2020 (assume as refunded)	(36,000)

Expense to charge in P/L for the y/e 31.12.2020		126,000	

Working – Expected future returns as at 31.12.2019:

Total expected returns in respect of 2019 sales	2millionX10%	200,000	
Less units already returned by 31.12.2019			(50,000)
Provisional units for 2019			150,000

Lease Contract with Yobe plc

The lease will be accounted for accordance with IFRS 16 Leases as it appears to fall within the scope the standard. There is an identifiable asset under the lease, the food processing equipment. Further, the lease terms in respect of the consideration and the duration can all be reliably determined.

IFRS 16 requires that lessees must capitalise all leases recognising a Right of Use Assets and corresponding Lease Liabilities. The lease liability is initially measured at the present value of the lessee's minimum lease payments discounted at the lessee's incremental borrowing rate (or the rate implicit in the lease if the incremental borrowing rate is not available). The Initial carrying amount of the Right of Use Asset is composed of any cash amount paid at inception of the lease (deposits, initial direct costs etc) plus the initial lease liability plus any provision for decommission of the lease. Subsequently, the lease liability is measured at amortised cost and the Right of Use Asset is generally depreciated over the shorter of the lease term and its useful economic life.

In accounting for the lease, Mizyu plc must determine the lease term that appears to have substance. It is highly likely that the lease will be terminated after the first six year. Therefore in accounting for this lease, the lease term must be taken as 6 years. Amounts to report in Mizyu's financial statements for the y/e 31.12.2017 will therefore be as follows:

SFP at 31.122020:		K'000
Non Current Assets		
Right of Use Asset(14,937X5/6)		12,448
Non Current Liabilities		
Lease Liabilities (working)		8,649
Current Liabilities		
Lease Liabilities (working)	1,674	
SPLOCI for the y/e 31.12.2020		
P/L		
Amortisation of Right of Use Asset (14,937/6)		(2,490)
Finance costs on lease liability (working)		(950)

Workings

1. Initial lease liability

Date (31.12)	Cashlow – K'000	PV factor @ 8%	PV
2020	2,500	1.08^-1	2,315
2021	2,500	1.08^-2	2,143
2022	2,500	1.08^-3	1,985
2023	2,500	1.08^-4	1,838
2024	2,500	1.08^-5	1,701
2025	3,000	1.08^-6	1,891
Initial Lease Liability			11,873

2. Initial Right of Use Asset

			K'000
Cash amounts paid at inception of lease			
Deposit	2,000		
Installation	500		
Initial lease liability		11,873	
Decommisioning Provision (1 millionX1.1^6)			564
Carrying amount of Right of Use Asset		14,937	

3. Subsequent measurement of lease liabilities

Y/e 31.12.	Bal b/d K'000	Finance costs @ 8% K'000	Cash paid K'000	Bal c/d K'00
2020	11,873	950	2,500	10,323
2021	10,323	826	2,500	8,649

Current liability at 31.12.2020:	K'000
Total liability at 31.12.2020	10,323
Less non current portion (liability still owing at 31.12.2021)	(8,649)
Current liability at 31.12.2020	1,674

Sale and Lease Back Transaction

Mizyu plc must account for the disposal since the sell has commercial substance. However, since a lease arises from the transaction, Mizyu must recognise a Right of Use Asset in respect of the lease and a corresponding Lease Liability. In accordance with IFRS 16, the Right of Use Asset will initially be measured as a proportion of the disposed of asset's carrying amount. The proportion must be the amount of the initial lease liability as a proportion of the fair value of the asset at the date of disposal.

A gain or loss on disposal will arise from derecognition of entire carrying amount of the sold asset, recognition of Right of Use Asset, recognition of the Lease Liability and recognition of the disposal proceeds as follows:

Disposal Account:

K'000	
Disposal Proceeds (debit cash)	4,000
Carrying Amount of sold asset (credit PPE)	(2,200)
Initial Carrying Amount of Right of Use As. (debit Right of Use Asset) (w)	850
Initial Carrying Amount of Lease Liability (credit lease liability) (w)	(1,546)
Gain on sale and Lease Back	1,104

Subsequently, the Right of Use Asset will be amortised over the lease term and the Lease Liability will be measured at Amortised Cost. Amounts to report in Mizyu's financial statements for the year to 31.12.2020 in respect of the sale and lease will therefore be as follows:

SFP at 31.12.2020	
Non Current Assets	K'000
Right of Use Asset (1,546 – 1,546/3X1)	1,031
Non Current Liabilities	
Lease Liabilities(w)	556
Current Liabilities	
Lease Liabilities(w)	514

SPLOCI for the y/e 31.12.2020	
P/L	
Amortisation of Right of Use Asset (1,546/3)	(515)
Gain on sale and Lease Back (w)	1,104
Finance Cost on Lease Liability (w)	(124)

Workings:

1. Initial Lease liability

Date (31.12)	Cashlow – K'000	PV factor @ 8%	PV
2020	600	1.08^-1	556
2021	600	1.08^-2	514
2022	600	1.08^-3	476
Initial Lease Liability			1,546

2. Initial Carrying amount of Right of Use Asset

Initial Lease Liability/Fair Value of the sold AssetXCarrying Amount of sold Asset = 1,546/4,000X2,200 = 850.3

3. Subsequent measurement of Lease Liabilities

Y/e 31.12	Bal b/d K'000	Finance costs @ 8% K'000	Cash paid K'000	Bal c/d K'00
2020	1,546	124	600	1,070
2021	1,070	86	600	556

Current liability at 31.12.2020:	K'000
Total liability at 31.12.2020	1,070
Less non current portion (liability still owing at 31.12.2021)	(556)
Current liability at 31.12.2020	514

SOLUTION THREE

Issue of 10% Loan Notes

Nkhula has classified the loan notes as a FVTPL liability. They will therefore be initially, on 1.1.2020, measured at their fair value of K100 per note excluding transaction costs in accordance with IFRS 9. Transaction costs of 1%X1 millionXK100 ie K1 miilion will be expensed in P/L for the year the contract is entered, that is y/e 31.12.2020.

Subsequently, the Loan Notes liability will be remeasured to their fair value at each reporting date. Therefore at 31.12.2020, their carrying amount in the SFP will be K101 million (ie K101 per noteX1 million note). Remeasurement gains and losses are primarily reported in P/L. However, any remeasurement gain or loss that arises from changes in the credit worthiness of the entity are reported in OCI.

Amounts to report in the SPLOCI for the y/e 31.12.2020 will therefore be as follows:

P/L:

	K'000
Transaction Costs on entering the contract (1%XK100X1million notes)	(1,000)
Finance Cost on Carrying amount during the year K100X1millionX10%	(10,000)
Remeasurement Gain for the year(w)	860
Net loss on the FVTPL liability	(10,140)

OCI

Remeasurement Loss for the year (w)	(1,860)

Workings:

			K'000
1. Total remeasurement gain or loss on the loan notes for the year:			
Fair vaue at year end		101,000	
Less carrying amount before remeasurement:			
Initial Carrying amount	100,000		
Finance cost for the year	10,000		
Cash paid on 31.12.2020 10%XK100m	(10,000)		
		(100,000)	
Total remeasurement Loss at 31.12.2020		1,000	

2. Expected Fair Value at 31.12.2020 without changes in credit rating:

The expected fair value equals the present value of the future loan note cashflows, ie after 31.12.2020, discounted at the would be specific interest rate at 31.12.2020 if the credit rating did not change. At 1.1.2020, the specific interest rate was equal to the general market interest rate. If Nkhula's credit rating at 31.12.2020 was the same as at 1.1.2020, the specific interest rate would also be equal to the general interest rate at 31.12.2020 ie at 10.5%. The expected fair value of each note would therefore be as follows:

Date (31.12)		Cashlow – K'000	PV factor @ 10.5%	PV
2021	K100X10%	10	1.105^-1	9.05
2022	(100+10)	110	1.105^-2	90.09
Expected FV at 31.12.2020				99.14

3. Remeasurement gain due to general changes in market interest rates (amount to report in P/L):

		K'000
Expected fair value at 31.12.2020	99.14X1million	99,140
Carrying amount before remeasurement		(100,000)
Gain due to general changes in market interest rates		(860)

4. Remeasurement loss due to changes (specific interest rate) in credit rating:

	K'000
Total remeasurement loss	1,000
Less gain due to general changes in interest rates	860
Loss due to changes in credit rating	1,860

Investment in Loan Notes

Nkhula's debt instrument asset in LPD will be classified as an amortised cost asset in accordance with IFRS 9. It will therefore initially be measured at fair value including transaction costs. Subsequently, it will be measured at amortised cost using the effective interest rate of 7.7%.

Amounts to report in respect of the investment in LPD for the y/e 31.12.2020 will therefore be as follows:

SFP at 31.12.2020

Non current Assets	K'000
Financial Assets (w)	208,432

_____

SPLOCI for the y/e 31.12.2020

P/L

Finance income (w)	16,332

______

Workings

1. Initial carrying amount of investment in LPD

		K'000
Purchase cost	2 millionXK100X1.05	210,000
Transaction Cost	1%X210,000	2,100
Fair Value including transaction costs		212,100

2. Subsequent measurement of investment in LPD K'000

Y/e 31.12	Bal b/d K'000	Finance income @ 7.7% K'000	Cash received K'000	Bal c/d K'00
2020	212,100	16,332	20,000	208,432

Investment in Shares

The equity financial asset has been classified as a FVTOCI asset (IFRS 9 irrevocable election). It will therefore initially be measured at fair value including transaction costs. This amounts to K404 million (ie 5 millionXK80 per share plus X 1.01). Subsequently, Nkhula will remeasure the investment to fair value each reporting date with gains and losses reported in OCI.

At 31.12.2020, the investment will be reported in the SFP within Financial Assets at a carrying amount of K490 million (ie 5million X K98 per share). The remeasurement gain of K86 million (ie K490 million – K404 million) will be reported in OCI for the year.

SOLUTION FOUR

Agreement with Senior Managers

Mwenya must account for the bonus scheme in accordance with FRS 2 Share Based Payments.

According to the standard, this arrangement is a cash settled share based payment since settlement will be by paying the managers a cash bonus. Mwenya must recognise a SBP expense based on the estimated number of managers that will remain employed at end of the performance period and based on the share price at each reporting date. In the SFP, the accumulated recognised expense will be presented as a SBP liability (obligation to pay a cash bonus).

Amounts to report in the financial statements for the year ended 31.12.2017 will be as follows:

SFP at 31.12.2020	
Non Current Liabilities	K'000
SBP Liability (10-1-2-1)X100,000X(10.5-10)X2/4	150

The SBP expense to report in P/L for the year to 31.12.2017 is computed as follows:

	K'000
SBP liability at 31.12.2020	150
Less opening liability at 1.1.2020 (share price was below K10)	-
Expense for y/e 31.12.2020	150

Gratuity Scheme for senior Managers

The gratuity scheme for Mwenya's senior managers will be accounted for in accordance with IAS 19 Employment Benefit Costs. The standard requires that costs of providing benefits must be recognised in the periods when the employee services are rendered and not neccesarily when made available to employees. The cost of providing long term benefits must be discounted.

The gratuity appears to qualify to be classified as a long term benefit since contracts are on average 5 years long and the gratuity is paid at end of the contract duration. The cost of running the gratuity scheme will therefore be accrued over the contract durations after discounting. The salary is a short term benefit (payable monthly)

Amounts to report in Mwenya's FS for the y/e 31.12.2020 will be as follows:

	K'000	
SFP		
Non Current Liabilities		
Gratuity Liabilities(w)		3,719

P/L

Salary Expense	K600X15	9,000)
Gratuity Expense(w)		(3,484)

Workings

1. Gratuity liability at 31.12.2020 – unexpired contracts only on that date:

Accumulated salary b/d 1.1.2020 1/2X 24 million	12,000		
Salary earned in this year 600X10		6,000	
Accumulated Salary at 13.12.2020	18,000		
Gratuity liability 21,000X25%X 1.1^-2			3,719

2. Gratuity Expense for the year to 31.12.2020:

			K'000
Opening gratuity liability 1.1.2020 (w)		3,985	
Gratuity settled at 31.12.2020 (w)	(3,750)		
		235	
Gratuity Expense for the period (balance)	4,104		
Gratuity Liability at 31.12.2020		4,339	

3. Gratuity liability at 1.1.2020:

		K'000
Contracts expiring 31.12.2020 1/2XK24millionX20%X1.1^-1	2,182	
Contracts expiring 31.12.2022 1/2XK24millionX20%X1.1^-3	1,803	
	3,985	

4. Gratuity settled on 31.12.2020

		K'000
Acculated salary 1/2XK24million+K0.6milliomX5 managers	15,000	
Gratuity paid K15millionX25%	3,750	

SOLUTION FIVE

(a) The purpose of analysing the overall amounts in the accounts into components arising from an entity's operating segments is to enable users of financial appreciate the significance of the various segments to the entity's overall financial performance and position. Specifically segment information will highlight the relative profitability, growth and risks of the entity's various operating segments. Information on individual operating segments will enable users appreciate the entity's relative resource allocation to the various segments and hence indication of direction of growth. Disclosure of operating segments will highlight the sectors with which the entity's activities are involved.

Segment information should therefore help investors to appreciate the results and financial position of the entity by permitting better understanding of the past performance and thus a better assessment of its future prospects. It should also help investors to be aware of the impact that that changes in the significant components of a business as whole and to assess the risks and returns of the business.

(b) REPORT
To: Potential Investor
From: Financial Analyst
Date: March 2020
Subject: Analysis and Interpretation of Nkhula Group Plc Operating segments

1. Introduction

This report analyses and interprets the information about Nkhula Plc Group's operating segments as disclosed in the notes to the group's financial statements. The analysis is based on the financial ratios highlighted in the appendix to the report.

2. Overall Profitability of the Segments

The overall profitability of the group as assessed by the Return on Net Assets has slightly improved over the period (from 27% in 2019 to 29% in 2020). The improvement only through the transport (from -6.7% in 2019 to 2.5% in 2020). Both the farming and the retail segments recorded reductions in the Return on Net Assets.

3. Profit Margins

The overall group operating profit margin has slightly improved over the period (from 31% in 2019 to 33% in 2020). The improvement comes from the transport (much higher improvement) and the retail segments. The operating profit margin of the farming segment remained the same.

4. Asset Turnover

Overall, the group improved its efficiency in generating the revenue in using its capital employed as measured by the Net Assets Turnover ratio (from 1.1 in 2019 to 1.2 in 2020).

It appears the improvement came through the transport segment as both the farming and retail segments recorded reductions in the Net Assets Turnover.

5. Growth in Revenue

The transport segment recorded the highest growth in revenue between 2019 and 2020 (55.5%) though this segment currently only accounts for 10.2% of the total group revenue. Indications are that the segment presents a source future growth for the group. Among the established segments, highest growth was from the retail sector. It is difficult to compare segments on a like with like basis as they are in different sectors.

6. Conclusion

It is clear from the above analysis that the transport segment contributed immensely to the overall improvement in the group performance.

However, it should be noted the segments are in different sectors and are therefore not comparable on a like with like basis. The analysis would be more helpful with comparable industry figures available.

APPENDIX – FINANCIAL RATIOS

		2020	2019
Growth in Revenue			
Farming	(653-642)/642	1.7%	
Retail	(208-199)/199	4.5%	
Transport	(98-63)/63	55.5%	
Group	(959-904)/904	6.1%	
Operating Profit Margin			
Farming	169/653	26%	
	168/642		26%
Retail	68/208	33%	
	62/199		31%
Transport	6/98	6%	
	(16)/63		-25%
Group	243/959	25%	
	214/904		24%
Net Assets Turnover			
Farming	653/(805-345)	1.4	
	642/(796-349)		1.5
Retail	208/(306-176)	1.6	
	199/(287-178)		1.8
Transport	98/(437-197)	0.4	
	63/(422-184)		0.3
Group	959/(1548-718)	1.2	
	904/(1505-711)		1.1

Return on Net Assets

Farming	169/(805-345)	37%	
	168/(796-349)		38%
Retail	68/(306-176)	52%	
	62/(287-178)		57%
Transport	6/(437-197)	2.5%	
	(16)/(422-184)		-6.7%
Group	243/(1548-718)	29%	
	214/(1505-711)		27%

(c) Though segmental analysis is helpful to users of financial statements, it has a number of limitations including the following:

(i) Common Costs

Some cost are common to more than one operating segments and can only allocated to individual segments on an arbitrary basis. This renders the analysis inaccurate.

(ii) Defining Reportable Segments

IFRS 8 Operating segments defines reportable operating segments based a 10% materiality level (bases being total profits, losses, revenue and assets). Amounts from non reportable segments can be aggregated and reported as ‘other segments’. This obscures the insight on individual segment contributions to the overall entity performance and position, especially where this óther segments group’ has a significant impact on the overall picture.

(iii) Unallocated Assets and Liabilities

Some assets and liabilities are common to more than one operating segments and can only allocated to individual segments on an arbitrary basis. This renders the analysis inaccurate.

END OF SOLUTION

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 18 MARCH 2021

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

Nambi Associates is an accountancy firm registered with the Zambia Institute of Chartered Accountants (ZiCA). It was formed in 1991 and specializes in the provision of forensic audits, taxation and audit assurance. You are a Senior Audit Manager in Nambi Associates.

At a recent management meeting, the Partners requested you to advise on the establishment of a money laundering program, assist in the audit of fair values in Mint Plc. and evaluate ethical and professional issues and explanation of detection risks in the recently approved on-line sales in Eric Ltd.

The ZiCA Review Department has criticized the Managing Partner of Nambi Associates for not spending enough time and money addressing the pressing issue of the establishment of a Money Laundering Program. Nambi Associates is susceptible to money laundering offences considering that most of their clients are in the entertainment industry.

During the audit of one of the betting companies, an Audit Manager identified that the company maintains no bank account and all transactions involved cash. The Managing Director of the company stated that in betting operations it was convenient to transact using cash to build the much needed customer confidence. This was reported to the Managing Partner who advised the Audit Manager to respect the Managing Director's justification as he had over twenty five (25) years working experience in the betting business. He also advised the Audit Manager to avoid any further questioning which could destroy the relationship built over the years. The Managing Partner mentioned that money laundering issues are more relevant in forensic investigations since they involve criminal offences which could be prosecuted in the courts of law. Nambi Associates would in fact save time and money by not pursuing such matters further when it involves financial statement audits.

MINT PLC

Mint Plc. is a large manufacturing company based in Zambia. It makes and sells various equipment for the entertainment industry. The entertainment industry in Zambia is characterized by increasing competition from Asian manufacturers due to their lower costs and an improving reputation for quality.

The company has always used historical cost accounting which shareholders who hold qualifications in economics have criticized. They are of the view that the company's non-current assets are grossly undervalued resulting in an abnormally low share price.

During the last annual general meeting (AGM), the on-going criticism was so pronounced and a resolution to change to fair value accounting for non-current assets was adopted via a majority vote. The directors are in support of this change mainly because the share price is likely to increase and they will receive huge bonuses for the first time. The financial statements for the year-ended 31 March 2019 are based on fair value accounting for non-current assets and you have been requested to advise the Engagement Partner on the inherent risks and risk procedures for balances held at fair value.

<u>ERIC LTD</u>

Assume today is 1 June 2019.

The following situations exist in the financial statement audit of Eric Ltd for the year ended 30 April 2019, which is about to commence:

1. Eric Ltd has threatened to sue Nambi Associates for a negligently conducted financial statement audit for the year-ended 30 April 2018. The audit opinion was modified and the company was unable to access cheap finance which was promised by one of the leading financial institutions. The financial institution is willing to reconsider its position but it is a requirement that the audit opinion ought to be unmodified.
2. Nambi Associates has been requested by the Finance Director to assist in the preparation of the final income tax return for tax year 2018 which is due for submission on 21 June 2019. Eric Ltd.'s tax expert is currently overseas on annual leave.
3. The audit fee for the audit of the financial statements for Eric Ltd for the year ended 30 April 2019 has been agreed at K400,000. The total fee for Nambi Associates is estimated at K2.12 million.

On 1 May 2018, Eric Ltd introduced on-line sales. This is the first time Nambi Associates is auditing a company involved in on-line sales. The board of Eric Ltd plans to introduce a policy on cut-off and internet security policy regarding on-line sales on 15 August 2019.

Eric Ltd has a qualified and experienced hardware and software expert. Training for all senior finance and marketing staff will be conducted next month. All junior members of staff have already been trained and are able to competently use the on-line system.

Required:

(a) Describe six (6) benefits of Nambi Associates having a money laundering program.

(6 marks)

(b) Evaluate the suitability of the advice given by the Managing Partner and recommend any further action that should be taken by Nambi Associates. (5 marks)

(c) Advise the Mint Plc. Engagement Partner on:

(i) The inherent risks regarding balances held at fair value, giving an appropriate example for each risk; and (6 marks)

(ii) The audit procedures for balances held at fair value. (4 marks)

(d) Explain the ethical and other professional issues raised in the audit of Eric Ltd by each of the situation above and suggest appropriate safeguards. (9 marks)

(e) Evaluate five (5) key detection risks in the audit of revenue in Eric Ltd.

(10 marks)
[Total: 40 Marks]

SECTION B

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

QUESTION TWO

You are a Senior Manager in the audit department of Zilani Associates and you are responsible for the audit of the financial statements for Lusuntha Plc for the year ended 31 May 2019. Lusuntha Plc is a long standing client of your firm and you are currently planning the audit.

Lusuntha Plc is a Zambian company situated in the Eastern Province of the Republic of Zambia. The company's business has increased in size and it is becoming more complex and difficult to achieve its objectives. The company has seven (7) divisions spread throughout the Republic of Zambia.

The shareholders include institutional investors from major investment organizations such as pension and insurance funds, investment and unit trusts. The key interest for these shareholders is profit and the associated dividend payouts. As the economy is sliding into recession after a boom, competition is becoming more intense as the same numbers of businesses compete for a shrinking level of customer spending. Conflicts between stakeholder interests have increased, as businesses take action to protect sales and profits by a range of policies involving cost cuts and laying off workers. Business failure rate has accelerated leaving problems for trade payables and financial institutions.

At a recent board meeting, the directors resolved:

1. To offer employment to the Engagement Partner. The Board believes the Engagement Partner will be able to provide strong financial guidance and control in these difficult times. The Engagement Partner is yet to make a decision.

2. To request Zilani Associates to provide bookkeeping services to the Kitwe Division. The savings will go towards supporting the dividend payout for the year.

3. To request Zilani Associates to provide internal audit services because all the internal auditors are highly compromised and are not adding any value. They have resorted to bribery and corruption and soliciting excessively large gifts in order to give clean internal audit reports to Divisional Managers.

The Engagement Partner has directed the audit team to pay particular attention to the audit of opening balances. However, a newly promoted Audit Senior has failed to appreciate the importance of the audit of opening balances given that Lusuntha Plc is a long standing audit client.

Customers have expressed concern with issues such as price, product, quality and customer service levels. Suppliers, on the other hand, have also expressed concern with lasting business relationships and fair treatment, including the ability of the business to meet its obligations when they fall due. The Engagement Partner has advised you to critically review management's assessment of going concern and not to forget the inclusion of an emphasis of matter paragraph to highlight any material uncertainty related to going concern.

Required:

(a) Explain the ethical and professional and ethical issues in the audit of the financial statements of Lusuntha Plc. (14 marks)

(b) Explain the importance of the audit of opening balances in the audit of Lusuntha Plc. (3 marks)

(c) Evaluate the use of the Emphasis of Matter paragraph in the audit report for Lusuntha Plc as advised by the Engagement Partner. (3 marks)

[Total: 20 Marks]

QUESTION THREE

You are one of the Audit Managers in Kafula & Co. and you are responsible for the audit of Chinhoyi Plc which was listed on the Lusaka Securities Exchange (LuSE) on 1 October 2019. It manufactures and sells water pumps which use solar energy. It employs 900 people.

You are currently planning the relevant procedures to be performed in the review of the interim financial statements for the six months ended 30 April 2020, which are due to be published.

The following issues have been brought to your attention:

Receivables

In the interest of time, the Engagement Partner has decided that receivables' confirmations should not be conducted since most large customers are resident in Zimbabwe. The receivables' reconciliations are up-to-date and the relevant controls for receivables have always been assessed as strong.

Depreciation

The Finance Director has mentioned that due to a systems failure, the depreciation figure on a small welding machine which was acquired on 29 April 2020 is understated. The Consultant will only be able to rectify the fault after three (3) months. Management does not want to use any other consultant as this will be contrary to the contractual obligations. The Finance Director has advised that this should be ignored. Chinhoyi Plc uses straight-line depreciation method for all assets.

Revenue
For the month of April 2020, Management recognized revenue using expected values. In this month, the pumps were all sold with a right to return as a marketing strategy. The company operates in several different markets and this provides significant challenges in marketing.

Share-based payment
Management has used a model which does not comply with IFRS 2 *Share-based payment* to determine the fair value of the share options granted to 800 eligible employees on 31 January 2020. The share options will vest on 31 July 2023. The share option scheme documentation has been made available and you have already verified the terms, numbers of options granted, dates of grant and vesting and any conditions attaching to vesting.

It is the first time a review engagement is being performed in Chinhoyi Plc and the Managing Director wants to clearly understand the reporting differences between external statutory audits and review engagements.

Required:

(a) Explain the reporting differences between external statutory audits and review engagements. (5 marks)

(b) Evaluate each issue given in the scenario and recommend for each issue, two (2) relevant procedures to be performed. (12 marks)

(c) Describe the nature of Kafula & Co.'s conclusion if Management refused to use a model which complies with IFRS 2 *Share-based payment.* (3 marks)

[Total: 20 Marks]

QUESTION FOUR

You are an Audit Manager in Graig & Co a firm of chartered accountants. You are responsible for the audit of Mwenya Ltd and advising the Partners on various practice management issues. You joined Craig & Co. on 16 October 2018.

Craig & Co. was formed ten years ago by Pinkie, Charles and Bibi, who are the only Partners of the firm. They have wide experience in auditing and accounting and have managed to run the firm successfully. Pinkie, who is the Managing Partner, recently attended a conference for Audit Partners, which focused on processes of successful practice management. She noticed two issues which the firm has not yet seriously undertaken and wants you to analyse them and recommend appropriate action. These issues were brought to a head when one of the presenters mentioned the importance of appropriate remuneration levels and marketing activities.

Mwenya Ltd is a long-standing audit client and the planning for the forthcoming audit for the year ended 31 March 2019 has just started. Mwenya Ltd is an agricultural company dealing in pig rearing.

The Engagement Partner held meetings with both the Finance Director and the Chairman of the Audit Committee.

The following issues were discussed:

1. On 1 April 2018, Mwenya Ltd acquired a processing plant for sausages. The directors propose to include the pigs as biological assets while the carcasses and sausages as inventory. The values involved are material.
2. The biological assets are measured at fair value less costs to sell. Mwenya Ltd will use an expert to determine the fair values of the biological assets at 31 March 2019.
3. During the year-ended 31 March 2019, the company acquired a plantation. The acquisition decision was based on a due diligence report issued by an independent audit firm.

   The Directors of Mwenya Ltd have requested Craig & Co. to provide assurance in relation to the effectiveness of risk management in Mwenya Ltd.

The current remuneration levels for audit staff are based on rigid pay structures where progression through the incremental steps is based on length of service in the particular grade. The remuneration levels are the lowest in the industry. Pinkie has proposed a new system based on individual performance.

The Partners have considered marketing as not being important because satisfied clients pass on their recommendations to new clients. However, due to a significant increase in competition and based on the notes obtained from the conference, Pinkie has proposed the following:

1. Placing of promotional leaflets in shopping malls. The leaflets should provide information about the firm, the prestigious qualifications and experience of the Partners.
2. Donation of football jerseys to a prominent team bearing the words, 'The leading audit firm – Craig & Co.'
3. Sponsoring awards to outstanding students at ZiCA graduation ceremonies and placing various advertising material at the graduation venue.
4. Posting regular briefs regarding Craig & Co. systems' technical updates on clients' and potential clients' mobile phones. The briefs will mainly focus on the relative strengths compared to those of competitors.

Required:

(a) Explain the practice management implications of the low remuneration levels for the audit staff in Craig & Co. (2 marks)

(b) Suggest four (4) audit procedures that should be performed in the audit of agricultural products of Mwenya Ltd. (4 marks)

(c) Evaluate the proposed marketing activities commenting on the ethical and professional issues raised. (8 marks)

(d) Explain the need for assurance on the effectiveness of risk management in Mwenya Ltd. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) You have just completed the planning of the audit of the financial statements of Kabompo Ltd one of your firm's audit clients.

During the process of assessing the risk of material misstatement through understanding the entity and its environment, you conclude that the risk of material misstatement is high. You called a pre-audit meeting with the audit team in order to brief the team on the outcome of the risk assessment and also emphasize to the team the need to maintain professional skepticism during the audit.

You suggested to the team that a substantive approach should be used in carrying out the audit of Kabompo Ltd. Frida, one of the Audit Assistants suggested that as soon as the audit commences, tests of controls should be carried out and depending on the results, a combined approach to the audit could be used.

Required:

Discuss the suggestion that a combined approach rather than a substantive approach to the audit of the financial statements of Kabompo Ltd should be used by your firm.

(4 marks)

(b) You are the Audit Manager in your firm of chartered accountants. You are reviewing the working papers for four (4) of your firm's audit clients.

Eagle Ltd:
The company conducted an annual inventory count at the period end. Soon after the inventory count before the final inventory valuation was done a fire swept through the warehouse destroying the entire inventory and the inventory count records.

There is no alternative method of determining the closing inventory value by the company. Management based the valuation of inventory on the inventory value at the end of the previous quarter and made adjustments for the sales purchases in the period to the year end.

Inventory is a material figure in the financial statements of this client. The only evidence that you have been able to obtain is the written representation by management.

Parrot Ltd:
The financial statements of Parrot Ltd have been prepared in accordance with the applicable financial reporting framework.

The audit team has obtained sufficient appropriate audit evidence to enable the engagement partner reach an appropriate conclusion.

In the summary for uncorrected misstatements, the value of one of the uncorrected misstatements amounted to K1.3 million against a materiality figure of K1.5 million set at the planning stage of the audit. Management is reluctant to amend the financial statements fearing that this will impact on the reported profit.

Sparrow Ltd:
The audit team performed the audit and there were no material misstatements that the team observed.

Under the audit of accounting estimates, the auditors established that there was a provision of K500,000 being a provision for a case whereby the former Chief Executive Officer of Sparrow Ltd sued the company for wrongful dismissal. He is claiming K1,700,000 as compensation for wrongful dismissal and damages suffered.

The working papers contain a written representation suggesting that management believes they will only be liable to the tune of K500,000 and note 4 of the draft financial statements gives details of the provision that has been made.

Owl Ltd:
There is a disagreement with management concerning the valuation of closing work in progress.

This prompted the auditors to engage an auditor expert who independently valued the work in progress. The difference between the value in the financial statements and the amount determined by the auditor is K125,000.

This amount is material to the financial statements but you conclude that this will not impact on the decisions of the users of the financial statements.

Required:

(i) Explain, using the information in Sparrow Ltd, the importance of the auditor performing audit procedures on subsequent events in the audit of the financial statements. (4 marks)

(ii) Evaluate the information in each of the four clients above and recommend a suitable opinion that should be issued by your firm. (12 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Benefits of a money laundering programme:**

There are many benefits for Nambi Associates having a money laundering programme and these include:

- Nambi Associates will be in compliance with the various laws and regulations on money laundering.
- Nambi Associates will be able to develop and implement policies and procedures which will effectively guide staff in gathering 'customer due diligence' information to assist them in spotting suspicious transactions.
- Nambi Associates will be able to take steps to avoid being found guilty of a wider range of offences. A detailed manual on money laundering could be developed outlining the recommended steps.
- Money Laundering Programmes usually entail appointment of a Money Laundering Reporting Officer (MLRO). This will strengthen the internal reporting procedures on money laundering.
- The Partners will be able to allocate funds towards training regarding the firm's obligations under the law, and employees' personal obligations.
- Nambi Associates may minimize potential legal suits and the associated costs.

(b) **Suitability of advice given and recommended further action:**

Suitability of advice given:

On any assignment, it is recommended that the auditor should assess the risk of money laundering. There are a number of ways in which the auditor could be involved in money laundering. It is not right for the Managing Partner to have advised the Audit Manager to ignore what could be a clear money laundering indicator. The justification for not having a bank account is not valid. Cash business is the easiest way to engage in money laundering activities which could be difficult to identify.

The saving made from not pursuing these matters further could be wiped out by the possible fines and penalties if caught. The reputation risk for both Nambi Associates and the Partner is high.

Recommended further action:

Nambi Associates should seek legal advice. If this is a case of money laundering, then this will cast serious doubts on the integrity of the Managing Director. Nambi Associates should make an appropriate money laundering report and resign from their position.

(c) **Advise on**:

(i) **The inherent risk regarding balances held at fair value:**

The balances held at fair value carry the following inherent risks:

(1) Assumptions often have to be made when estimating fair values, e.g. discount factors. This is worsened by the directors' misplaced support.

(2) Estimates are inherently imprecise, and involve judgements, e.g. about conditions, timing of cash flows, or the intentions of the entity.

(3) Estimation models are often complex, e.g. discounted cash flow techniques. There is a risk of the model being misapplied.

(ii) **Audit procedures for balances held at fair value:**

○

Nambi Associates is required to **assess** the entity's process for determining accounting estimates including fair value measurements and disclosures and related control activities and to assess the arising risks of material misstatement. It is possible that management processes for determining fair values may not very reliable given that fair value accounting for non-current assets is being done for first time this year.

Once Nambi Associates have assessed the risks associated with determining fair value, they should **determine further procedures** to address those risks.

(d) **Ethical and other professional issues and appropriate safeguards**

Ethical and other professional issues	Appropriate safeguards
(1) Threatened litigation – Nambi Associates is faced with an intimidation threat. It risks losing the client, bad publicity and the possibility that if it will be found to have been negligent, this will lead to further problems. The threatened litigation will put Nambi Associates under pressure to produce an unmodified audit report which may not be appropriate.	The threatened litigation is serious since it borders on the competence of Nambi Associates. It will therefore be necessary to resign from the engagement, as the threat to independence is so great.
(2) Taxation services – Nambi Associates	Preparation of the final income tax return is

may be faced with self-review and advocacy threats. However, the extent of these will depend on the factors including: • The system used by the tax authority to assess and administer the tax • The complexity of the relevant tax regime and the degree of judgement necessary in applying it • The characteristics of the engagement • The level of tax expertise of the client's employees Nambi Associates may fail to exercise the required level of professional scepticism when conducting the audit to protect their reputation.	based on tax laws and rarely involves use of judgement. The threat to independence is therefore insignificant and can be managed by using separate teams (Chinese walls).
(3) High percentage of fees – The audit fees generated by Nambi Associates from Eric Ltd represents 18.9% (400,000/2,120,000 X 100%) of the total fees. This exceeds 15% and is therefore considered to be significant. This can create self-interest or intimidation threats. Nambi Associates may not want to lose Eric Ltd and may engage in unethical conduct e.g. ignoring material misstatements, not performing all the recommended audit procedures etc.	Safeguards might include: • Taking steps to reduce the dependency on Eric Ltd • Obtaining external/internal quality control reviews • Having a professional accountant review the audit work

(e) **Key detection risks in the audit of revenue in Eric Ltd**

The detection risks include:

(1) Nambi Associates may have no experience in e-commerce which may increase detection risk. Extended audit tests concerning revenue recognition and 'cut-off' tests may be appropriate if the audit team suspect anomalies.

(2) There may be a significant need to use the work of experts to obtain sufficient, appropriate audit evidence. At the moment, Eric Ltd does not have an appropriate policy for cut-off. This may be complex and it may be difficult to determine when has the performance obligation been satisfied. Expert assistance may be required.

(3) On-line sales may create a 'paperless office' as all transactions are carried out online. Problems for Nambi Associates may include lack of supporting documentation, concentration of expertise in a few people, potential for unauthorized access. Eric Ltd only has one qualified and experienced hardware and software expert. This will make use of CAATs essential.

(4) In addition, over-reliance on one computer expert could lead to him committing fraud regarding revenue which Nambi Associates may be unable to detect. There will be need to assess internal controls related to revenue.

(5) There are likely to be significant impacts on analytical review involving revenue as results under the new operations are unlikely to be very comparable to the old. Any comparisons should be done intelligently and the audit team should avoid generalisations.

(6) Given that it is now 1 June 2019, and the company has a 30 April 2019 year-end, the time frame for planning the audit and gaining a thorough understanding of the on-line system and its processes is tight. Nambi Associates should ensure that there are adequate experienced staff with necessary software expertise available to complete the work.

(7) Viruses, hackers etc. could corrupt the revenue figures making them unreliable to work with. This will make the audit work even more challenging.

SOLUTION TWO

(a) **Ethical and professional issues of Zilani Associates:**

(i) **Proposed employment of the Engagement Partner by Lusuntha Plc**

Employment with an audit client is a threat to independence. The Engagement Partner will be in a position to exert significant influence over the preparation of the accounting records or financial statements. In respect of audit clients that are public interest entities, such as Lusuntha Plc, the International Ethics Standards Board for Accountants (IESBA) Code states that a key audit partner should not accept a key management position at an audit client until a "cooling off" period has elapsed.

The IESBA Code requires "cooling off periods" where partners intend to join public interest entities as follows:

- KEY AUDIT PARTNER – The public interest entity has issued audited financial statements covering a period of not less than 12 months for which the partner was not a member of the audit team
- FIRM'S MANAGING PARTNER (or equivalent) – One year

The Engagement Partner should not accept the offer of employment from Lusuntha Plc until the appropriate "cooling off" period has elapsed. In addition, once the Engagement Partner moves to Lusuntha Plc, he should not be entitled to any benefits or payments from Zilani Associates unless these are made in accordance with pre-determined arrangements.

Zilani Associates should have quality control procedures setting out that an individual involved in serious employment negotiations with an audit client should notify the firm and that this person would then be removed from the engagement.

(ii) **Provision of bookkeeping services to the Kitwe Division:**

There is clearly a significant risk of a self-review threat if a firm prepares accounting records and financial statements and then audits them. According to the IESBA Code, firms should not prepare accounts or financial statements for public interest clients. However, there is a minor exception to this, the auditor can provide accounting and bookkeeping services to a division of a public interest entity, provided the matters that the services relate to are immaterial to the financial statements of the division and the division is immaterial to the financial statements on which the firm will express an opinion. Hence, Zilani Associates' decision whether to accept or not to provide bookkeeping services to Kitwe Division, will depend on the terms of the engagement. If the terms conform to the IESBA Code, then Zilani Associates could accept to provide bookkeeping services to the Kitwe Division.

(iii) **Provision of internal audit services:**

Internal audit services involve assisting the audit client in the performance of its internal audit activities. This creates a self-review threat if the firm goes on to use the internal audit work during the external audit. The firm must use the same degree of professional scepticism when evaluating the internal audit work as would be used if the internal audit work was performed by individuals who are not part of the firm.

For clients such as Lusuntha Plc, that are public interest entities, the IESBA Code rules are stricter and simply prohibit the audit firm from providing internal audit services that relate to:

- A significant part of the internal controls over financial reporting
- Financial accounting systems that generate information that is significant to the financial statements on which the firm will express an opinion
- Amounts or disclosures that are material to those financial statements.

The situation in Lusuntha Plc is so serious that the provision of internal audit services could even involve Zilani Associates' personnel assuming management responsibility. Hence Zilani Associates must not accept to provide internal audit services.

(b) **Importance of the audit of opening balances:**

The audit team is required to obtain sufficient appropriate audit evidence about whether the accounting policies reflected in the opening balances have been consistently applied in the current period's financial statements, and whether changes in the accounting policies have been properly accounted for and adequately presented and disclosed in accordance with the applicable financial reporting framework. This is also important to long standing audit clients such as Lusuntha Plc.

(c) **Evaluation of the use of Emphasis of Matter paragraph:**

Emphasis of Matter paragraph refers to a matter appropriately presented or disclosed in the financial statements that, in the auditor's judgement, is of such importance that it is fundamental to users' understanding of the financial statements.

Its use in the audit report of Lusuntha Plc will be inappropriate since the Emphasis of Matter paragraph is no longer used in relation to going concern. Zilani Associates should use a "Material uncertainty related to going concern" paragraph. Hence, the Engagement Partner's advice is wrong.

SOLUTION THREE

(a) **Reporting differences between external statutory audits and review engagements:**

External statutory audits
In external statutory audits, the auditor provides a high, but not absolute, level of assurance that the information audited is free of material misstatement. This is expressed positively in the auditor's report as reasonable assurance.

Review engagements
In review engagements, the auditor/practitioner provides a limited level of assurance that the information subject to review is free of material misstatement. This is expressed in a negative form i.e. nothing has come to the auditor's/practitioner's attention that causes them to believe that the financial statements are not prepared in all material respects, in accordance with the applicable financial reporting framework.

(b) **Evaluation of the issues and the relevant procedures:**

Receivables
Receivables' confirmation is an important procedure used to verify a number of financial statement assertions which include existence, rights and obligations and valuation. If it is not conducted, it may be difficult to conclude whether the receivables are fairly stated.

However, alternative relevant procedures include the following:

1. Reviewing correspondence with customers to identify any relevant undisclosed issues.
2. Check receipt of cash after-date by reviewing post six months bank statements.
3. Ask management whether there are any significant issues with customers, and if so, how they have been treated in the interim financial statements.

Depreciation
Understatement of the depreciation charge will result in the overstatement of both the profits and the assets. However, given that the asset involved is a small welding machine which was acquired a day before the period end, the misstatement is likely to immaterial or indeed trivial to the financial statements. Hence, this could be ignored.

However, the following procedures could still be relevant:

1. Review non-current assets register to ensure that depreciation has been charged on all assets with a limited useful life.
2. Review the depreciation policy and assess for reasonableness by discussion with management.

3. Calculating the expected value of the total depreciation charge (Cost + Additions – Disposals) x Depreciation %) and comparing it with its actual value in the interim financial statements (this is a reasonableness test).

Revenue

IFRS 15 *Revenue* gives guidance in this area. It states that if there is a right of return then the goods which are expected to be returned are not recognized in revenue. This may be calculated using expected values. Hence, the accounting treatment used by Management is allowed by the standard.

However, since revenue recognition is one of the commonest areas of fraudulent financial reporting, the relevant procedures include:

1. Compare revenue with the related figures such as inventory and receivables.
2. Obtain a copy of the calculation of revenue recognized in April 2020 and recalculate.
3. Obtain written representations from Management regarding the reasonableness of the probabilities used in the calculation of expected values.

Share-based payment

The model used to assess the fair value of the share options is prohibited since it does not comply with IFRS 2 *Share-based payment.* This may cause both the expense and equity to be over or understated in the financial statements. This is a complex area and in this case, the detection risk is high since Management has not followed the requirements of IFRS 2.

The relevant procedures will include:

1. Discuss with Management on the possibility of recalculating the expense using a model which complies with IFRS 2.
2. If they agree to use a model which comply with IFRS 2, recalculate the expense and ensure details of the scheme are fully disclosed in the interim financial statements.
3. If they do not agree, consider whether to modify the review report or to withdraw from the engagement and the final audit.

(c) **Kafula & Co.'s conclusion in view of management's refusal to comply:**

ISRE 2410 *Review of Interim Financial Information performed by the Independent Auditor of the Entity* gives guidance in this area. The issue is certainly material since it affects 89% of the employees and therefore the appropriate conclusion could be a qualified conclusion. However, if the misstatement is also pervasive, then an adverse conclusion would be appropriate.

SOLUTION FOUR

(a) **Practice Management implications of low remuneration:**

Low remuneration levels have a number of practice management implications which include the following:

(1) The remuneration levels may be lower than the minimum wages stated in the Employment Act. Craig & Co. could penalized by the enforcement authorities.

(2) Low remuneration levels is not in line ISQC 1 *Quality Control for Firms that perform Audits and Reviews of Financial Statements, and other assurance and related services engagements*. This works against the desire for quality.

(3) The firm in particular and the accountancy profession in general faces reputational risks especially if the firm is sued. Craig & Co. is expected to avoid any conduct that discredits the profession.

(4) Audit staff could be involved in undesirable behaviour which could bring Craig & Co. and ZiCA into disrepute e.g. receiving bribes in exchange for favourable conclusions.

(5) Craig & Co. may fail to achieve its objectives mainly due to having a highly demotivated audit staff.

(b) **Audit procedures for agricultural products:**

- Attend the inventory count of the pigs at the year-end to confirm existence.
- Engage the services of an expert to confirm the valuation of the pigs and the plantation and confirm it is at fair values.
- Obtain evidence of the determination of the fair values used in the valuation of biological assets.
- Ensure that the accounting for the acquired planation is done correctly in accordance with accounting standards. The trees in the timber plantation accounted for under IAS 41 while any logs are accounted for under IAS 2.
- For the processed sausages confirm that the valuation of any closing inventory is accounted for in accordance with the provisions of IAS 2 *Inventory.*

(c) **Evaluation of Proposed marketing activities:**

The proposed marketing activities will be evaluated using guidance given in IESBA *Code of Ethics for Professional Accountants*. In general, IESBA Code allows assurance professionals to engage in various marketing activities. However, accountants are professional people and people rely on their work. It is important therefore that their marketing activities do not project an image that is inconsistent with that fact.

(1) Placing of promotional leaflets in shopping malls – promotional leaflets are not normally used to advertise professional services. The contents of the

promotional leaflets may be misunderstood by the public. The mention of the prestigious qualifications and experience may involve making exaggerated claims for qualifications possessed and experience gained. This is not allowed. In addition, the use of shopping malls is inappropriate considering the fact that some of the promotional leaflets placed in these shopping malls by others may be false, misleading etc.

(2) Donation of football jerseys to a prominent team bearing the words, 'The leading audit firm – Craig & Co.' – the words, 'The leading audit firm – Craig & Co.' are not honest and truthful. Professional accountants should not be associated with falsehood. For example, having only three (3) Partners cannot make Craig & Co. a leading audit firm.

(3) Sponsoring awards to outstanding students at ZiCA graduation ceremonies and placing various advertising material at the graduation venue - there is nothing wrong with this marketing activity. ZiCA could appropriately guide on any advertising material to be placed at graduation venue.

(4) Posting regular briefs regarding Craig & Co. systems' technical updates on clients' and potential clients' mobile phones – this is unsolicited and could in fact involved making disparaging references or unsubstantiated comparisons to the systems of competitors. This is not acceptable.

(d) **Need for assurance of risk assessment processes of Mwenya Ltd:**

There is need for assurance mainly due to the following:

(1) Interested stakeholders, particularly investors, need assurance that the risk taken by the company, in effect with their investment, is acceptable to them and that the returns that they receive are in accordance with that level of risk.

(2) It is this need for assurance about the risks the company enters into that has led to the importance of the issue of corporate governance and internal control effectiveness.

(3) Other stakeholders will also be interested in the effectiveness of risk management in a company. Examples are lenders and employees. This is because the ultimate risk is that a business might fail.

SOLUTION FIVE

(a) Suggestion to use a combined approach:

A substantive approach to auditing is where the auditor performs detailed tests on all the material balances in the financial statements. The objective of the tests is to obtain sufficient appropriate audit evidence that the financial statements are not materially misstated.

The substantive approach is used when the auditor does not place any reliance on the internal controls of the client company.

The alternative to the substantive approach is the combined approach. In this case, the auditor performs tests of control over the client's internal controls. If the results of the tests of control suggests that the controls were operating effectively throughout the period under audit, the auditor will place some reliance on the effectiveness of the controls. The auditor will therefore rely on the results of the tests of control and detailed tests in arriving at conclusions.

Conclusion:
The suggestion that a combined approach could be used in the audit of Kabompo Ltd is correct and this will be a combination of tests of control and substantive tests.

(b) (i) Importance of audit procedures on subsequent events:

Subsequent events are events that take place between the date of the financial statements and the date of the auditor's report.

ISA 560 *Subsequent events* gives guidance to the auditor in this area. The standard requires that the auditor should perform audit procedures for the period between the year end and the date of signing the audit report. The main reason for such procedures to be performed is that some of the events that occur during this period may help give evidence of conditions that existed at the period end.

In the case of the audit of Sparrow Ltd, there is an accounting estimate of the provision that was made at the period end. If the court case is concluded soon after the period end and before signing the audit report, this means that the amount that should have been provided for at the year end will be known with more certainty and it is materially different from the provision of K500,000 that was made in the financial statements, the financial statements will have to be adjusted.

(ii) Suitable opinions for the four audit clients:

Eagle Ltd:

The fact that the auditors have no other method to use in obtaining evidence with regards closing inventory suggests that there is a limitation of scope. The auditors will have no basis on which to base their conclusion on the value of inventory. Written representations may not be considered as sufficient audit evidence in the absence of alternative evidence.

Conclusion:

The amount of inventory in Eagle Ltd is material and is most likely going to have a pervasive effect to users of financial statements if misstated. In view of the fact that the auditors were not able to obtain sufficient appropriate audit evidence, a disclaimer of opinion will be recommended.

Parrot Ltd:

Uncorrected misstatement amounting to K1.3 million are clearly material to the financial statements of Parrot Ltd. The amount is nearing the materiality figure set at the planning stage of the audit. Taken together (aggregated) with the undetected misstatements, it is likely that the uncorrected misstatements will exceed the materiality figure of K1.5 million.

Conclusion:

In this case considering that the uncorrected misstatements are material to the financial statements and management are unwilling to adjust the financial statements, the auditors will issue an adverse opinion concluding that the financial statements do not show a true and fair view.

Sparrow Ltd:

The claim and provisions of K500,000 in the financial statements of Sparrow Ltd is an example of an accounting estimate.

Management is of the view that the likely liability will be K500,000 and has made a provision for that amount. Written representation by management is part of the evidence that the auditors obtained and it is acceptable if management believes that that is the likely liability.

The fact that the matter is included in the notes to the financial statements indicates that management has made the required disclosures of this accounting estimates.

Conclusion:
By making a provision in the financial statements, management has correctly accounted for the accounting estimate in accordance with IAS 37 and has disclosed this in the financial statements.

The auditors in this case will issue an unmodified audit opinion. If they wish to bring this matter to the attention of the users of the financial statements, they may do so by including it in the emphasis of matter paragraph.

Owl Ltd:
The auditors are concerned about material items in the financial statements. The disagreement on the valuation of work in progress is material to the financial statements and so it is a matter of concern to the auditor. The conclusion that the difference in the valuation of work in progress will have no impact on the decisions made by the users of financial statements suggest that the matter is not pervasive to the financial statements.
Conclusion:
In view of the fact that the difference in the valuation of work in progress is material but not pervasive to the financial statements, the opinion that should be issued is a qualified opinion.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.3: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 17 MARCH 2021

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 question.
   Section B: There are four (4) 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)

COCA-COLA'S STRATEGY FOR GROWING ITS SALES IN CHINA AND INDIA

In 2004 Coca-Cola developed a strategy to dramatically boost its market penetration in such emerging countries as China and India, where annual growth had recently dropped from about 30 per cent in 1994 – 1998 to 10 – 12 per cent in 2001 – 2003. Prior to 2003, Coca-Cola had focused its marketing efforts in China and India on making its drinks attractive to status-seeking young people in urbanized areas (cities with populations of 500,000 or more), but as annual sales growth steadily declined in these areas during the 1998 – 2003 period. Coca-Cola's management decided that the company needed a new, bolder strategy aimed at more rural areas of these countries. It began promoting the sales of 6.5-ounce returnable glass bottles of coke in smaller cities and outlying towns with populations in the 50,000 to 250,000 range.

Returnable bottles (which could be reused about 20 times) were cheaper than the plastic bottles or aluminum cans, and savings in packaging costs were enough to slash the price of single-serve bottles to one yuan in China and about five rupees in India, the equivalent in both cases of about 12 cents. Initial results were promising. Despite the fact that annual disposable incomes in these rural areas were often less than $1,000, the one-yuan and five rupee prices proved attractive. Sales of the small bottles of Coke for one local Coca-Cola distributor's total sales; a local distributor in India boosted sales from 9,000 cases in 2002 to 27,000 in 2003 and was expecting sales of 45,000 cases in 2004. Coca-Cola management expected that the greater emphasis on rural sales would boost its growth rate in Asia to close to 20 per cent and help boost worldwide volume growth to the 3-5 per cent range as opposed to the partly 1 per cent rate experienced in 2003.

However, Pepsi, which had a market share of about 27 per cent in China versus Coca-Cola's 55 per cent, was skeptical of Coca's rural strategy and continued with its all-urban strategy of marketing to consumers in China's 165 cities with populations greater than 1 million people.

Source: A.A. Thompson, A.J. Strickland and J.E. Gamble, Grafting & Executing Strategy, McGraw - Hill Book Company, 15th Edition; page 221

Required:

(a) Being Country manager of Coca-Cola in one of these countries, discuss any four (4) barriers to entry that you would consider. (12 marks)

(b) If on the other hand, you represented a local Chinese or Indian company in such a scenario facing global multinational companies like Coca-Cola and Pepsi, discuss three (3) generic competitive strategies that you would consider in competing in the market. (12 marks)

(c) If Coca-Cola chose a way of engaging in a strategic alliance with a local firm or partner, in either China or India, explain any four (4) benefits it would benefit from such an alliance. (8 marks)

(d) Strategic alliance as alluded to above require certain factors to be considered when choosing alliance partners. Discuss any four (4) factors as suggested by Hooley et al (2008). (8 marks)

[Total: 40 Marks]

SECTION B

Attempt any three (3) from the following questions.

QUESTION TWO

At its inaugural meeting, a newly appointed Board of Directors of Zambia National Broadcasting Corporation is discussing what should be its direction in the next two years. Mr. Maxwell Young, a representative of a donor that has injected $250000 into the company, has questioned why the company is lagging behind private broadcasting stations despite being the largest broadcaster in the nation. He has argued that the company should retrench some of its employees and bring in programmes that would appeal to the market. Mr. Bowman Kazembe, who was appointed to the Board to represent the government, has argued that the company should continue to be a mouthpiece of government policies and desist from worsening the unemployment situation. Reverend John Chilepa, representing the church organizations, would like to see more religious programmes in line with Zambia having been declared as a Christian nation.

Required:

Discuss how the strategy Zambia National Broadcasting Corporation is contemplating formulating is likely to be influenced by its stakeholders' expectations.

[Total: 20 Marks]

QUESTION THREE

(a) The Zambia Postal Services Corporation for a long time enjoyed a monopoly in the telecommunications business. In the last ten years, however, the company has steadily lost business to technological advances in telecommunications.

Required:

Describe the nature of the risk the company has faced and recommend any four (4) ways the company can employ to manage the risk it faces. (10 marks)

(b) KE is a state owned enterprise. It has been the tradition for the government to appoint members of the board and the Chief Executive Officer. In the past, one person served as Chairman of the Board and another person served as Chief Executive Officer. The government is now contemplating having one person serve as both Chairman of the Board and Chief Executive Officer.

Required:

Evaluate the government's proposed move to have one person serve as Chairman of the board and Chief Executive Officer. (10 marks)

QUESTION FOUR

Mr Mutethi owns a company which is about to embark on a project to produce motor vehicles for the domestic transport market and also for export. A choice had to be made between conventional gasoline models and electric/solar-powered models. In order to reduce risks in terms of the production of such high-value items, a suitable organizational structure was required.

Required:

(a) Recommend an organizational structure that would be suitable for this organization, giving its advantages and demerits. (10 marks)

(b) Describe the different parts of the business environment in which this company is going to operate in and what types of analyses that can be done for each. (5 marks)

(c) Technology is a very important factor in today's business environment. Describe how changes in the technology can affect this organization. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

Ms. Mary Liswaniso is the Business Development Manager for Najata Food Ltd. Business has not been good for Najata Food Ltd. in the last few years and she is now in Kenya to follow up on an order worth millions of Kwacha. The Kenyan buyer has indicated a willingness to place an order but has been stalling. He has intimated to Mary that he will finalize the deal and sign the contract if he is given something. Mary realizes that he is demanding a bribe. She is also aware that her company back home desperately needs this contract.

Required:

Advise Ms. Liswaniso on what she should do.

[Total: 20 Marks]

END OF PAPER

CA3.3 SUGGESTED SOLUTIONS

SOLUTION TO QUESTION ONE

SOLUTIONS TO QUESTION ONE REQUESTS

(a) Many strategy options are available to a global company like Coca-Cola which it may employ to fit in the unusual or challenging circumstances that are in emerging –country markets like China and India. These options include:

i. Prepare to compete on the basis of low price. Consumers in emerging markets are often highly focused on price, which can give low-cost competitors the edge unless a company can find ways to attract buyers with bargain prices as well as better products. For example, Coca-Cola introduced a reusable glass bottle and reduced its size in China thereby reducing the cost and price of the product.

ii. Be prepared to modify aspects of the company's business model to accommodate local circumstances. This should however not be so much that it loses the advantage of the global scale and global branding. In this case, Coca-Cola sought to use a similar form of its bottles and go into the rural towns of these countries. Although the populations in these outlying towns had less disposable income, sales of the small bottles of Coke increased tremendously. In case of one distributor, sales increased from 9, 000 cases in 2002 to 27,000 in 2003.

iii. Try to change the local market to better match the way the company does business elsewhere. A global company often has enough market clout to drive major changes in the way a local country market operates. In this case, Coca-Cola offered its products in big plastic bottles and cans in big cities and elsewhere but had to both reduce the size of its glass bottles and move its products into rural and outlying towns that were not well served by local companies.

iv. Stay away from those emerging markets where it is impractical or uneconomical to modify the company's business model to accommodate local circumstances. Coca-Cola in both China and India scaled down their presence in cities but concentrated in rural towns with good sizeable populations and repackaged its products into smaller reusable glass bottles which were cheaper in price while maintaining the quality of the coke.

(b) If opportunity-seeking, resource rich global companies like Coca-Cola that have either entered or are looking to enter an emerging market, there are strategy options that local companies may use to survive. As it turned out in China and India, the prospects for local companies facing global giants are by no means insurmountable. They can employ any of the four generic strategy options depending on whether their competitive assets are suitable only for the home market or can be transferred abroad , and whether industry pressures to move toward global competition are strong or weak.

The strategy options that a local company chooses from are:

i. Use home – field advantage. When pressure for competing globally are low and a local firm has competitive strengths well suited to the local market, a good strategy option is to concentrate on the advantages enjoyed in the home market, cater to customers who prefer a local touch, and accept the loss of customers attracted to global brands. A local company may be able to exploit its local orientation, its familiarity with local preferences, its expertise in traditional products, and its long standing customer relationship. Another competitive approach is to cater to the local market in ways that pose difficulties for global rivals.

ii. Transferring the company's expertise to cross-border markets. When a company has resource strengths and capabilities suitable for competing in other country markets launching initiatives transfer its expertise to cross-border markets becomes a viable strategic option.

iii. Shifting to a new business model or market niche. When industry pressures to globalize are high, any of the following options makes most sense:

- Shift the business to a piece of the industry value chain where the firm's expertise and resource provide competitive advantage.
- Enter into a joint venture with a globally competitive partner or
- Sellout to (or be acquired by) a global entrant into the home market who has concluded that the company would be a good vehicle.

For example, when Microsoft entered China, local software developers shifted from cloning windows application software customized to the Chinese market.

iv. Contending on a global level. If a local company in an emerging market has transferable resources and capabilities, it can launch successful initiatives to meet the pressures for globalisation head-on and start to compete on a global level itself. An example, here includes Lenovo, China's biggest PC maker, that purchased IBM's PC business, and launched initiative to become a global PC maker alongside leaders Dell and Hewlett-Packard.

(c) Benefits of Strategic alliance includes:

i. Gaining better access to attractive country markets by the foreign company.

ii. To capture economies of scale in production and/or marketing cost reduction can be the difference that allows a company to be cost-competitive.

iii. To fill gaps in technical expertise and/or knowledge of local markets (buying habits and product preferences of consumers, local customers and so on.

Iv. To share distribution facilities and dealer networks, thus mutually strengthening their access to buyers.

v. Cross border allies can direct their competitive energies more toward mutual rivals and less toward one another, teaming up may help them close the gap on leading companies.

vi. Benefit comes into play when companies desirous of entering a new foreign market, conclude that alliances with local companies are an effective way to tap into a partner's local market knowledge and help it establish working relationships with key officials in the host-country government.

vii. Alliances can be a particularly useful way for companies across the world to gain agreement on important technical standards – they have been used to arrive at standards.

(d) Any four (4) factors to be considered when choosing alliance partners as suggested by Hooley et al (2008).
Drivers – What benefits are offered by collaborations?

Partners – Which partners should be chosen?

Facilitators – Does the external environment favour a partnership?

Components – Activities and processes in the network.

Effectiveness – Does the previous history of alliances generate good results? Is the alliance just a temporary blip?

Market-orientation – Alliance partners are harder to control and may not have the same commitment to the end-user.

SOLUTION TWO

According to Johnson et al (2005), a strategy is the 'direction and scope of an organisation over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations.' A strategy is thus developed in order to meet stakeholder expectations whatever these might be. A stakeholder expectations are what a stakeholder desires given his background.

The scenario described in the question depicts a situation in which the stakeholder expectations are not similar among the stakeholders (members of the board of directors). The stakeholder expectations will influence the direction the direction the firm wishes to take. The investor who has staked $250000 expects an economic return on his investment and will be inclined to formulate a strategy based on an economic orientation; the member of the board who represents the government expects a social return in which employment is maintained or generated and is therefore likely to lean toward a strategy based on a social orientation; and the member of the board sponsored by the churches whose interest is in preserving Christian values will lean toward a strategy based on a religious orientation.

Although all members of the board can be assumed to seek a strategy that will bring success to the organization, there is seemingly conflict in the stakeholders' expectations. An economic orientation which characterises the board member seeking an economic return on the investment of his principals is clearly in conflict with the social orientation of the board member representing government who is opposed to retrenchment as a way of achieving some measure of economic success. Nor is the religious orientation compatible with an economic orientation.

As stakeholders members of the board have a legitimate interest in what the organisation does. According to Johnson et al (2005), stakeholders are those individuals who depend on the organization to fulfil their expectations and on whom the organization depends. Given the diversity of expectations among members of the board and the likelihood of conflict of expectations among the board members, it is necessary to ensure that the strategy formulated wins the acceptability of all the stakeholders. Johnson et al (2005) have proposed a framework for predicting and managing the likely reactions to a strategy in order to win acceptability of a strategy among the stakeholders.

The technique is based on simultaneously analysing two variables: (a) the extent to which each shareholder is interested in impressing his expectations on the choice of strategy and (b) the extent to which a shareholder's power facilitate or hinder the adoption of a strategy. Using these two dimensions, four scenarios can emerge with suggested ways of achieving acceptability of a strategy when there is conflict in shareholder expectations.

Scenario A: When a stakeholder has high power and high interest

When a stakeholder or a group of stakeholders wields high power and has a high interest in a strategic choice, there is likely to be acceptability in the strategy. The strategic direction of the strategic partner and the government will be pursued their expressed interest is accompanied by power as indicated by financial resources in the case of the investor or political power in the case of the government

Scenario B: When a stakeholder has high power and low interest
This type of stakeholder has power to block a strategic choice and must be persuaded or educated to gain support for a strategic choice in which they have no interest.

Scenario C: When a stakeholder has low power and low interest
This stakeholder will have little influence on the choice of a strategy.

Scenario D: When a stakeholder has low power and high interest
This type of stakeholder has no influence but is likely to support the strategy

SOLUTION TO QUESTION THREE

a) Risk is anything that threatens an organisation's ability to achieve its objectives and goals. Since the goal of a company is to earn a profit, a risk can be ant event or factor that potentially disrupts the company's ability to generate the profit it desires. Although the company is a monopoly in the telecommunications sector, it is now facing a risk where its services are becoming obsolete as a result of the emergence of technologically advanced products which have undermined the demand for its products and services.

   The following might be some of the ways the company can respond to the risk it faces:

   - *Diversification*: This means broadening the product/service base by producing other products or services where the organization does not face the same risk. Diversification can also take the form of transferring to new markets where the risk is non-existent or minimal.
   - *Innovation:* This involves modifying the existing products/services or coming up with completely new products altogether. It is aimed at introducing new product features.
   - *Transfer/Sharing:* This involves transferring or sharing the risk with another organization. For instance, the company can enter into a joint venture with another firm so that the risk is shared among the partners.
   - *Acceptance:* This is where the organization decides to live with the risk and do nothing about it. This strategy may be justified where the risk is insignificant or the cost of responding to the risk is too high
   - *Abandonin*g: A company may deal with risk by **abandoning** operations and quitting in instances where the risk is too big if its resources and competences fall short for an effective response. This is a realistic approach in many developing economies.

(b) Good corporate governance requires that the roles of Chairman of a Board and Chief Executive Officer should not be performed by one and the same person for a number of reasons:

1. The Chairman should be left to lead the members of the board and the CEO should lead members of management.
2. The Chairman should be responsible for
    a. Communicating with the shareholders, in this case the government
    b. Receiving, considering and approving the strategic direction of the firm. In this regard, the CEO should be accountable to him and the board
    c. The appointment of the CEO
    d. The effective governance of the organization by superintending organs of governance, such as, the audit committee, remuneration committee, risk and nomination committee
    e. Reviewing the performance of the CEO and members of management
3. The CEO on the other hand is responsible for
    a. Day to day operations of the organization and be accountable to the board
    b. Initiate and develop strategy by examining major investments, and work out major capital expenditure for the approval of the board
    c. Ensure that appropriate control systems are in place
    d. Liaise with other stakeholders other than shareholders
    e. Establish a management team by identifying potential key management staff for the approval of the board
    f. These different roles in respect of the Chairman of the Board on one hand and Chief Executive Officer on the other will ensure
        i. Accountability - whether the Chairman of the board and his directors are answerable to shareholders, and whether management is **answerable to the board in some** way for the consequences of their respective actions.
        ii. Responsibility - whether the board and management will accept the credit or blame for governance decisions
        iii. Transparency – whether there is **open and clear and full disclosure** of relevant information to shareholders and other stakeholders,

SOLUTION FOUR

Mr. Mutesi owns a company which is about to embark on a project to produce motor vehicles for the domestic transport market and also for export from manufacturing plants in Lusaka, Kitwe and Ndola. The company's headquarters are to be located in Lusaka but it specifically has to operate responding to local needs and requirements. In this manner, the company shall try to create competences of global relevance, responsiveness to local conditions and innovation and learning on an organization-wide level. A choice had to be made between conventional gasoline models and electric/solar-powered models. In order to reduce risks in terms of the production of such high-value items, a suitable organizational structure was required.

Questions

(a) Recommend and describe an organizational structure that would be suitable for this organization, giving its demerits, specific operational features and requirements.

SOLUTION

The **transnational structure** attempts to reconcile global scope and scale with local responsiveness. It tries to combine the best of the international strategy in terms of economies of scale from a low-cost product specified for a single market and a range of low volume, high-cost products each specified for and produced in a single national market. The former is the global while the later is the multi-domestic approaches to organization which require their own characteristic organizational structures.

Specific operational characteristics:

- National units are independent operating entities but also provide capabilities that are utilized by the rest of the organization.
- Such shared capabilities allow national units to achieve global, or at least regional, economies of scale.
- The global corporate parent adds value by establishing the basic role of each national unit and then supporting the systems, relationships and culture that enable them to work together as an effective network.
- It responds specifically to the challenges of globalization.
- It tends to have a high proportion of fixed responsibilities in the horizontal lines of management.

Specific requirements

If it is to work, the transnational structure must have very clearly defined managerial roles, relationships and boundaries.

- Managers of global products or businesses have responsibilities for strategies, innovation, resources and transactions that transcend both national and functional boundaries.
- Country managers must feed back local requirements and build unique local competences.
- Functional managers nurture innovation and spread best practice.
- Managers at the corporate parent lead, facilitate and integrate all other managerial activity. They must also be talent spotters within the organization.

Demerits of the transnational structure

- It makes great demands on its managers, both in their immediate responsibilities and in the complexity of their relationships within the organization.
- The complexity of the organization can lead to the difficulties of control and the complications introduced by internal political activity.

(b) Describe the different parts of the business environment in which this company is going to operate in and what types of analyses that can be done for each.

SOLUTION

The Macro-environment

Analyses:

PESTEL – identifies 6 types of influences on the organization. Political, Economic, Socio-cultural, Technological, Environmental, Legal. These are general environmental factors.

Key drivers of change.

Scenarios

The Industry or Sector

Analyses:

Five Forces – New entrants, Substitute products, Bargaining power of customers, Bargaining power of suppliers, Rivalry amongst current competition.

Cycles of competition

Competitors and Markets

Analyses:

Strategic groups

Market segments

Critical success factors

(c) Technology is a very important factor in today's business environment. Describe how changes in the technology can affect this organization.

SOLUTION

Effects of technological change on the organization.

- The type of products or services that are made and sold.
- The way in which products are made.
- The way in which goods and services are sold.
- The way in which markets are identified.
- The way in which firms are managed.
- The means and extent of communications with external clients.

SOLUTION FIVE MARK ALLOCATION

- **(a).** Correct structure and advantages and disadvantages (2 + 4 of each x 2 marks)
- = 10 Marks
- **(b).** Correct description of business environment parts, 1 + 4 analyses each x 1 mark
- = 5 Marks
- **(c).** Correct description of 6 technology effects. = 5 Marks
- **Question Total = 20 Marks**

SOLUTION FIVE

Ms. Liswaniso is facing an ethical problem where she should decide whether paying a bribe to a potential customer in order to secure an order for her company is the right and moral thing to do. It is a managerial dilemma because it presents a conflict between her company's economic interest and the society's social interest. It is necessary for her to strike a balance between the two.

While it is possible to ignore the balance between the two and argue that management should settle for economic performance, the social cost of brushing aside the social aspect may have undesirable consequences even for the company itself. On the other hand, settling for social performance will lead to economic loss of an opportunity that may be costly to the company (shareholders, management and employees). It is suggested that the need for some middle ground is motivated by the following considerations:

(a) Most ethical decisions have extended consequences and have wider ramifications beyond the immediate economic and social consequences. The impact of an economic or social decision will be felt beyond the company or society. For instance, a decision not to pay a bribe will lead to loss of the order which will adversely affect the stakeholders in the company but may also affect society at large through loss of employment. On the other hand, a decision to pay a bribe has consequences for the society.

(b) Most ethical decisions have multiple alternatives and cannot be accurately dealt with when dealt with in a dichotomous manner requiring 'yes' or 'no.' Moral concerns also may cover some grey areas.
(c) Most ethical decisions have mixed outcomes. The outcomes from having made an economic decisions will not be confined to economic outcomes but may also bring about social outcomes.
(d) Most ethical decisions are not deterministic; they may carry risks and uncertainty. One cannot determine precisely the amount of profit to be gained by paying a bribe. Nor can one determine in precise terms the gains from not paying a bribe.
(e) Most ethical decisions have personal implications. Ethical decisions are not necessarily impersonal and divorces from the personal lives and personal careers. Individual benefits or costs are associated with alternatives of ethical decisions.

A framework for reaching a balance can be derived from taking into consideration three types of analysis:

From a microeconomic perspective this assumes that a market economy has scarce resources and if the choice for economic performance leads to a situation of optimum allocation and efficient and effective use of resources, it makes economic sense to settle for economic rather than social performance. If bribery is the price a firm has to pay in order to achieve economic benefits for the firm and society, then the decision should be made to pay the bribe. The overriding condition is that market forces obtain and are driving economic choice.

From a legal perspective, it can be argued that a democratic society can establish its own rules which people and organizations are expected to follow. And for as long as they follow those rules, they can be considered to be treated fairly. In the case of Kambanizithe in Kenya, the company would first have to establish the Kenyan rules regarding bribery and act in line with those rules.

From an ethical perspective, the guiding principle would be to act as rational man or woman would in a similar situation. The basis of the decision would be to act in line with what constitutes 'the greatest good for the greatest number' of people'.

ADVISORY LEVEL – PUBLIC PRACTICE ROUTE

CA 3.4: ADVANCED TAXATION

THURSDAY 18 MARCH 2021

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 K39,600	first K39,600	0%
K39,601 to 49,200	next K9,600	25%
K49,201 to K74,400	next K25,200	30%
Over K74,400		37.5%

Income from farming for individuals

K1 to K39,600	first K39,600	0%
Over K39,600		10%

Company Income Tax rates

On income from manufacturing and other	35%
On income from farming	10%
On income of Banks and other Financial Institutions	35%
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 –	Plant used normally	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%

Presumptive Tax for Transporters

Seating capacity	**Tax per annum**	**Tax per day**
	K	K
From 64 passengers and over	10,800	29.60
From 50 to 63 passengers	9,000	24.70
From 36 to 49 passengers	7,200	19.70
From 22 to 35 passengers	5,400	14.80
From 18 to 21 passengers	3,600	9.90
From 12 to 17 passengers	1,800	4.90
Less than 12 passengers and taxis	900	2.40

Property Transfer Tax

Rate of Tax on Realised Value of Land, Land and Buildings and shares	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 transfer of Intellectual Property	5%

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 below 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	17,778	22,223	8,889	11,112

persons including the driver				
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 below 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 below 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	30,274	0	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, **with spark ignition internal combustion piston engine**	30,697	13,302	24,119	10,452
Panel Vans				
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	21,926	9,501	10,963	4,751
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	28,504	12,352	13,156	5,701
GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	10,817	8,293
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	19,461	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 (C0MPULSORY)

Chingola Mining Corporation (CMC), is a Zambian resident subsidiary of a foreign based Multinational Mining company. CMC is engaged in mining operations of base metals and precious metals. The group maintains its accounts in US dollars.

The following summarised statement of profit or loss for the year ended 31 December 2020, has been extracted from the financial statements of CMC and all amounts are expressed in Zambian Kwacha.

	Note	K' 000
Sales revenue	(1)	982,000
Cost of sales		(348,000)
Gross profit		634,000
Operating expenses	(2)	(187,000)
Infrastructure expenses	(3)	(5,000)
Finance cost		(150,000)
Investment income	(4)	6,000
Profit before tax		298,000
Income tax expense	(5)	(10,000)
Profit for the year		288,000

Additional information:

Note 1: Sales revenue

This comprises sales of vanadium for the year amounting to K80,000,000 being the norm value of the mineral for mineral royalty tax purposes, sales of precious minerals for the year amounting to K202,000,000 being the norm value of mineral for mineral royalty tax purposes. The remaining balance of the sales represents the norm value of coper sold during the year based on London Metal Exchange cash price which ranged from $6,100 to $6,900 per metric tonne throughout the tax year 2020.

Note 2: Operating expenses

Included in operating expenses, is mineral royalty tax paid by the company during the year which was computed correctly and paid on the relevant due dates. Also included in operating expenses are depreciation charges of K3,000,000 amortisation of intangible assets of K1,000,000, advertising expenses of K800,000, fines for breaching environmental laws of K6,000,000, salaries and wages of K30,000,000. The balance represents miscellaneous allowable operating expenses.

Note 3: Infrastructure expenses:

These comprises expenditure of K3,500,000 incurred on the construction of a hospital in the mine township and expenditure of K1,500,000 incurred on the construction of a community school in the mine township.

Note 4: Investment income

Investment income comprises income from letting of property amounting to K4,000,000 (gross) and treasury bill discount of K2,000,000 (gross).

Note 5: Provisional Income Tax

The figure for the income tax expense in the statement of profit or loss shown above represents the provisional income tax paid by the company in the tax year 2020.

Note 6: Unrelieved Tax loss brought forward

The company had an unrelieved tax loss of K120,000,000 at 1 January 2020, which was incurred in the previous tax year, the tax year 2019.

Note 7: Imported Mining Equipment

During the year ended 31 December 2020, the company imported the following mining assets from foreign suppliers and put them into use immediately on the date acquired:

Date	Asset	Cost
		K'000
20 January 2020	Mine locomotives	750,000
5 April 2020	Mining Excavators	500,000

Note 8: Locally acquired implements, plant and machinery

At 1 January 2020, all locally purchased implements, plant and machinery had been completely written down for capital allowances purposes and their income tax values were zero. The following mining assets were purchased from local Zambian suppliers:

Date	Asset	Cost
		K'000
12 May 2020	Drilling equipment	37,500
25 June 2020	Dump trucks	225,000

Note 9: Indexation formula and other information

The indexation formula for capital allowances and mining losses, where applicable, is given below:

$$1 + \frac{(R_2 - R_1)}{R_1}$$

The following Zambian Kwacha per US Dollar (ZMW/US$) average BOZ mid-exchange rates should be used where applicable:

Accounting Period	*Average BOZ Mid-Exchange rate*
	ZMW/ US$
Y/e 31 December 2018	K13.20
Y/e 31 December 2019	K14.00
Y/e 31 December 2020	K14.56

Note 10: Future plans:

CMC is registered for VAT and is planning to acquire three pool cars next year locally from Zambian resident suppliers. Each motor car has a VAT inclusive cost of K285,500 and the total cost for the three cars will therefore amount to K856,500. The following three financing options being considered for the motor cars:

(1) Purchase the motor cars using a bank loan of K856,500 at an interest rate of 18% per annum payable in arrears and repayable in annual equal instalments over a period of four years.

(2) Finance the purchase using a four-year finance lease for the three motor cars. The annual lease rentals for each car will be K106,000, which will be payable annually in advance with the first instalment being made at the start of next year. The interest rate implicit in the lease agreement will be 18%.

(3) Lease the motor cars under an operating lease agreement. The annual lease payments will be K84,000 VAT inclusive for each car commencing at the start of next year. The lease agreement will be renewable annually.

Required:

(a) Compute the following amounts for the tax year 2020:

(i) The indexed capital allowances claimable on the foreign acquired assets. (4 marks)

(ii) The total capital allowances on locally acquired assets and other qualifying mining expenditure. (4 marks)

(b) Calculate the final tax adjusted mining profit for the tax year 2020 and show the amount of the tax loss remaining unrelieved at 31 December 2020. (18 marks)

(c) Calculate the final company income tax payable by the company for the tax year 2020. (5 marks)

(d) In relation to CMC's future plans, advise the directors of CMC of the taxation implications for the company acquiring pool cars next year using each of the following options:

(i) Hire purchase (3 marks)

(ii) Operating lease (3 marks)

(iii) Finance lease (3 marks)

[Total: 40 Marks]

SECTION B

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

<u>QUESTION TWO</u>

Etambuyu has been employed at Celnet Holdings Ltd, a Zambian resident private limited company on a three-year renewable fixed term contract which commenced on 1 January 2019. On the day she joined the company she was granted an option to purchase 100,000 ordinary shares of the company (each with a nominal value of K1) for an exercise price of K3 per share, being the market price per share on that date, under an unapproved share option scheme. The grant was on condition that the options where only exercisable once she had been employed by Celnet Holding Ltd for one year, but she was required to hold the shares for at least 6 months before she sold them. Etambuyu earned the following income in the tax year 2020:

Income from Zambian employment

In the tax year 2020, Etambuyu was entitled to an annual salary of K360,000, and a housing allowance of 30% of her basic salary. The company additionally paid her monthly life insurance premiums of K2,500.

Throughout the tax year 2020 she was provided with a 2800cc Toyota Fortuner car on a personal to holder basis, which was acquired by the company two years ago at a cost of K420,000. The company paid all the motor car running expenses including fuel in relation to the car which amounted to K2,800 per month. She had private use of the car of 60%.

On 1 January 2020, Etambuyu exercised the 100,000 options when the share price on that date was determined to be K4.20 per share. On 1 September 2020, she sold 30% of her shares for K4.50 per share being the market value of each share on that date.

Investment income from Zambian Sources

Etambuyu received the following investment income from Zambian sources in the tax year 2020:

	K
Dividends from Celnet Holdings Ltd	10,200
Copy right royalties from Zambian sources	15,300
Fixed deposit interest from a Zambian Bank	5,000

These were the actual amounts received by Etambuyu. Withholding Tax had been deducted at source where applicable.

Investment income from foreign sources

Etambuyu holds various investments in a foreign country known as Tascovia. The currency of Tascovia is the Tascovian dollar (T$). The following investment income was deposited in her Zambian bank account in respect of these investment:

Dividends from Tascovian companies	T$1,300
Rent from letting of property in Tascovia	T$4,800
Fixed deposit interest from Tascovian banks	T$400

Both the dividends from Tascovia income and Rent from letting of property in Tascovia are net of withholding tax at the rate of 35% deducted in Tascovia, whilst Fixed deposit interest from Tascovian banks is net of withholding tax at the rate of 20% deducted in Tascovia. There is no double taxation agreement between Zambia and any double taxation relief available should be given by means of unilateral credit relief. An exchange rate of K14.00 per T$ should be used were relevant.

Other information

During the tax year 2020, the company deducting employee's National Health Insurance Contributions (NHISCs) at the rate of 1% of her basic salary per month from her employment income and contributed employer's NHISCs at the rate of 1% of her basic salary on her behalf.

The company additionally deducted employee's NAPSA contributions of 5% of her relevant employment earnings per month from her employment income and paid employer's NAPSA contributions of 5% of her relevant employment earnings on his behalf. The company further deducted PAYE amounting to K218,200. Etambuyu made donations of K3,000 to a public benefit organisation in the tax year 2020.

Required:

(a) Explain the taxation implications for Etambuyu of:

(i) The exercise of the 100,000 share options on 1 January 2020. (2 marks)

(ii) The sale of 30% of her shareholding in Celnet Holdings Ltd. (2 marks)

(b) Explain how your answer in (a) (i) and (a) (ii) above would have been different if the share option scheme was approved for tax purposes. (3 marks)

(c) Compute the income tax payable by Etambuyu for the tax year 2020. (13 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

Background

Tiger plc is a Zambian resident company engaged in manufacturing. It listed its shares on the Lusaka Securities Exchange (LuSE) in 2019 and 40% of its issued share capital was bought by indigenous Zambians. On 1 January 2020 Tiger plc acquired 80% of the issued share capital of Catfish Ltd a company that was incorporated in Zambia. Both companies prepare financial statements annually to 31 December and are registered for Value Added Tax purposes.

Financial performance of the group

The following are the statements of profit or loss for the year ended 31 December 2020 for each company:

		Tiger Plc	Catfish Ltd
		K'000	K'000
Sales revenue	(Note 1)	2,600,000	1,850,000
Cost of sales	(Note 2)	(1,560,000)	(1,202,500)
Gross profit		1,040,000	647,500
Operating expenses	(Note 3)	(520,000)	(388,500)
Finance costs	(Note 4)	(180,000)	(106,800)
Profit before tax		340,000	152,200
Income tax expense	(Note 5)	(119,000)	(53,270)
Profit for the year		221,000	98,930

The following additional information is relevant

(1) All of Tiger Plc's revenue are standard-rated whereas 80% of Catfish Ltd's revenue are standard-rated with the remainder being zero-rated supplies for the purposes of VAT. Included in Tiger plc's sales revenue are sales amounting to K200,000 made to Catfish Ltd during the year ended 31 December 2020. Catfish Ltd has included this figure within its cost of sales.

(2) The figure for cost of sales comprise of the following:

	Tiger Plc	Catfish Ltd
	K'000	K'000
Opening inventory	250,000	190,000
Purchases (Note 1)	1,300,000	980,000
Depreciation	30,000	16,000
Amortisation of intangible assets	40,000	45,000
Closing inventory	(60,000)	(28,500)
	1,560,000	1,202,500

The purchases for both companies are standard rated for VAT purposes. 25% of Catfish Ltd's purchases were from non-VAT registered suppliers.

(3) Operating expenses comprise of the following:

	Tiger Plc	Catfish Ltd
	K'000	K'000
Salaries & wages	336,000	294,000
Entertainment of customers	116,000	50,500

Overheads	68,000	44,000
	520,000	388,500

The amounts for entertainment of customers are VAT inclusive.

(4) Finance costs relates to loans from financial institutions not related to any of the two companies. The interest rate applicable on the loans is equal to the arm's length borrowing rate.

(5) The income tax expense in the statement of profit or loss represent the provisional income tax paid during the tax year 2020.

(6) As at 1 January 2020 there were no assets qualifying for capital allowances. During the tax year 2020 Tiger plc and Catfish Ltd bought the following implements, plant and machinery:

	Tiger plc	Catfish Ltd
	K'000	K'000
2 Toyota Prado motor cars (3000 cc) each costing K200,000	400,000	-
1 Toyota Fortuner car (3000 cc)		280,000
Office equipment	208,800	
Second hand factory building		542,200

All of the above amounts are VAT inclusive.

The motor cars are used by the directors of each company on a personal-to-holder basis. Business use in Tiger plc's motor cars is estimated to be 70% while the business use in Catfish Ltd's motor car is estimated to be 60%.

(7) Unless stated otherwise, all of the figures in this scenario are exclusive of VAT and are standard rated where applicable.

Required:

(a) Advise the directors of the amount of income tax payable for the tax year 2020 by each company in the group. (13 marks)

(b) Advise the directors of the amount of Value Added Tax payable for the year ended 31 December 2020 by each company in the group. (7 marks)

[Total: 20 Marks]

QUESTION FOUR

LDF Limited is a Zambian resident company in the retail industry. It commenced in business on 1 January 2019, importing and exporting soft drinks. At the start of the tax year 2019, the company estimated the taxable profits to be K5,100,000. The company calculated and paid the provisional income tax correctly on the due dates and also submitted the return of provisional income for the tax year 2019 correctly. At the end of the tax year 2019, the company's actual final taxable profit was K5,720,000. The company calculated the balance of income tax still to be paid for the tax year 2019 and paid this on 1 October 2020. The self-assessment income tax return for the tax year 2019 was also submitted on 1 October 2020.

In January 2020, the taxable profit for the tax year 2020 was estimated to be K5,400,000. In the year 2020, the company faced challenges due to the adverse movement of the kwacha exchange rate relative to the dollar. The fall in the kwacha exchange rate has made imports expensive resulting in the company facing some liquidity problems. As a result, the company paid provisional income tax for the quarter ended 31 March 2020 on 10 September 2020. The return of provisional income for the tax year 2020 was also submitted on 10 September 2020.

The provisional income tax for the quarter ended 30 June 2020 was paid on 1 October 2020.

You should assume that, the income tax rates and bands for the tax year 2020 apply throughout and that the Bank of Zambia discount rate is 9.75% per annum.

Required:

(a) Explain the possible causes of and the differences between tax avoidance and tax evasion and discuss the ethical and practical consequences of practicing each of them. (6 marks)

(b) Advise LDF Limited of the amounts of penalties and interest on overdue taxes and tax returns charged on all payments and tax return submissions made up to and including 1 October 2020. (14 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a firm of Chartered Accountants. You are dealing with the tax affairs of Ronda Limited and Ngubwe bank Ltd.

Ronda Limited

The Zambia Revenue Authority (ZRA) recently audited the financial statements of Ronda Ltd for tax purposes. During the tax audit the ZRA officers discovered some computational errors in the accounts of Ronda Ltd. The directors are concerned, as they are not sure as to whether these errors you have discovered would be can be categorized as deliberate behavior and have requested for information on the different types of defaults that can be uncovered during a tax audit.

Ngubwe bank Ltd

Ngubwe bank Ltd is a Zambian resident company. The bank recently introduced a share option scheme for its employees. The company would like the Commissioner General to approve the share option scheme as there are no tax benefits for both employer and employee if the scheme is not approved. However management is uncertain as to the conditions to be met by the bank in order for the scheme to be approved.

For the tax year 2020, Ngubwe Bank had profit before taxation of K16,710,000 in the statement of profit or loss for the year ended 31 December 2020. This figure was arrived at after taking into account the following items:

(1) Interest income of K88,800,000. The total withholding tax deducted from the interest income during the charge year 2020 amounted to K1,325,000.

(2) Provision for loan losses which comprised the following:

	K'000
Increase in general provision for loan losses	3,264
Increase in specific provision for loan losses	628
Loans written off	3,240
Loans previous written –off now recovered	(1100)
Total provision	6,032

(3) Non- interest expenses which included the following:

	K000
Depreciation charges	372
Employees' salaries	2,770
Entertainment expenditure for customers	170
Legal cost for recovery of loans	280
Donations to approved public benefit organization	1,860
Miscellaneous allowable general business expenses	14,120
Total	19,572

(4) Non-interest income is composed of the following:

	K' 000
Rental income	1,096
Realized foreign exchange gains	712
Unrealized foreign exchange gains	500
Fees from foreign exchange transactions	3,426
Profit on disposal of non-current assets	180
Total	5,914

(5) Provisional income tax paid during the tax year 2020 which amounted to K1,848,000.

Other information

(1) No entries have been made in the financial statements in relation to the following transactions entered into by the bank during the tax year 2020.

- Annual operating lease rentals of K25,000 paid by the bank relating to an operating lease agreement for a car used by the bank as a pool car, which the company entered into in January 2020. The car had a cash price of K150,000 and the lease is renewable annually.

- A hire purchase agreement to purchase office equipment with a cash price of K90,000. The company was required to pay an initial deposit of K25,000 on 1st January 2020, followed by six (6) installments of K16,000 each per month starting on 1st February 2020.

(2) Capital allowances

Capital allowances on other assets held by the company were determined to be K360,000 for the tax year 2020.

Required:

(a) In relation to Ronda Ltd, explain what deliberate behavior means in the context of tax audits and advise the directors of the company of two other categories of tax defaults that can been discovered during a tax audit conducted by the ZRA. (6 marks)

(b) In relation to Ngubwe Bank Ltd:

(i) Advise the directors of any four conditions that should be met in order for the proposed employees' share options scheme to be approved by the Commissioner General. (4 marks)

(ii) Calculate the total company income tax payable for the tax year 2020. (10 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) (i) COMPUTATION OF CAPITAL ALLOWANCES ON IMPORTED MINING IMPLEMENTS, PLANT AND MACHINERY

	K' 000
Mine Locomotives	
Indexed capital allowance	
(K750,000,000 x 20%)	150,000
Mining Excavators	
Wear & tear allowance	
(K500,000,000 x 20%)	100,000
	250,000

(ii) COMPUTATION OF OTHER CAPITAL ALLOWANCES ON QUALIFYING EXPENDITURE

	K' 000
Hospital	
Wear & tear allowance	
(K3.5 m x 20%)	700
School	
Wear & tear allowance	300
(K1.5m x 20%)	
Drilling equipment	
Wear & tear allowance	
(K37.5m x 20%)	7,500
Dump Trucks	
Wear & tear allowances	
(K225m x 20%)	45,000
	53,500

(b) COMPUTATION OF TAXABLE MINING PROFITS

	K'000	K'000	
Net profit as per accounts		298,000	
Less expenses			
Depreciation	3,000		
Amortisation of intangible assets	1,000		
Fines for breach of environmental laws	6,000		
Mineral royalty tax	71,020		(W1)
Construction of hospital	3,500		
Construction of school	1,500		
interest	150,000		
		236,020	
		398,420	
Less:			
Rental income	4,000		
Treasury bill discountt	2,000		
		(6,000)	

Tax EBITDA		528,020	
Less:			
Interest (less than 30% of Tax EBITDA)	150,000		(W2)
Capital allowances (K250,000 +K53,500)	303,500		
		(453,500)	
Taxable mining profits		74,520	
Less loss relief (W3)		(37,260)	
Final taxable mining profits		37,260	

WORKINGS

(1) COMPUTATION OF MINERAL TAX PAID FOR THE TAX YEAR 2020

Mineral	MRT PAID
Vanadium	K'000
K80m x 8%	6,400
Precious Minerals	
K202m x 6%	12,120
Copper	
K700m x 7.5%	52,500
Total	71,020

(2) COMPUTATION OF DISALLOWED INTEREST

COMPUTATION OF TAX EBIDTA	K'000
Tax EBITDA	528,020
Maximum tax allowed interest paid	
30% x K528,020	158,406
The whole amount of interest is tax allowed	

(3) LOSS RELIEF FOR THE TAX YEAR 2020

	K' 000
Indexed loss b/f	
[1 + (14.56 –14.00)/14.00] x K120,000	124,800
Less loss relief	
Restricted to (50% x K74,520)	34,960
Unrelieved tax loss at 31 December 2020	87,540

(c) CMC

COMPNAY INCOME TAX COMPUTATION FOR THE TAX YEAR 2020

K'000

Taxable Mining profit	37,260
Treasury bill interest	2,000
Total taxable business profit	39,260
Company income tax on mining profits (K37,260 x 30%)	11,178
Company income tax on fixed deposit interest (K2,000 x 35%)	700
	11,878
Less Tax already paid	
WHT on Fixed deposit interest (K2,000 x 15%)	(300)
Provisional income tax	(10,000)
Company Income Tax payable	1,578

(d) Tax implications of finance options for pool motor cars

(i) Bank loan

If the motor cars are acquired by using a bank loan, the taxation implications will be as follows

(1) The company will not be able to recover input VAT on the motor cars as VAT on motor cars is irrecoverable.

(2) The company will claim capital allowances at the rate of 20% on the VAT inclusive cost of the motor cars and the amount of capital allowances will be:

(K285,500 x 20%) x 3 = K171,300

(3) The interest on the loan will not be an allowable deduction in the computation of taxable business profits as interest on loans obtained for the purposes of acquiring capital assets is not allowable.

(ii) Finance lease option

If the motor cars are acquired by using a finance lease arrangement, the taxation implications will be as follows:

(1) The company will not be able to recover input VAT on the motor cars as VAT on motor cars is irrecoverable.

(2) CMC will claim capital allowance at the rate of 20% on the VAT inclusive cost of the motor cars and the amount of capital allowances will be:

(K285,500 x 20%) x 3 = K171,300

(3) The finance charge on the finance lease will be an allowable deduction in the computation of taxable business profits subject to restriction to 30% of the amount of Tax Earnings before interest, tax, depreciation and amortisation.

(iii) Operating lease option

(1) The company will not be able to recover input VAT on the lease rental as input VAT on motor cars is not recoverable.

(2) The VAT inclusive operating lease rentals will be allowable deductions when computing the taxable business profits.

(3) The company will not be able to claim any capital allowances on the cost of the motor cars.

SOLUTION TWO

(a) (i) Tax implications of the exercise of the options

On the exercise of share options by an employee from a share option scheme that is not approved for tax purposes run by an employer, the price paid is compared with the open market value at that time, and if the price paid is less, the difference is charged to income tax.

In Etambuyu's case on exercise, the difference between the market value of the shares and the price paid for the shares will be taxed as income on her, since the market price of the share of K4.20 on 1 January 2020, the date she exercised the options is higher than the exercise price of K3.00. The amount of income taxable on Etambuyu on the exercise of the options will therefore be:(K4.20 – K3.00) x 100,000 = K120,000

(ii) Tax implication of the sale of the shares

On the sale of shares acquired under a share option scheme that is not approved for tax purposes in an unlisted company, property transfer tax is payable on the realised value of the shares sold. The shares have a realised value for property transfer tax purposes that is equal to the higher of their nominal value and the open market value. In Etambuyu's case the realised value will be the open market value as the market price of each on the date of disposal is K4.50 which is higher than the nominal value of each share which is K1.

The amount of PTT arising will therefore be:

(30% x 100,000 shares) x K4.50 x 5% = K6,750

(b) Tax implications for Etambuyu if the share option scheme was approved

Any gain arising to an individual on allotment and exercise of shares under an approved share option scheme is exempt from income tax. In the case of an exercise of options the gain or benefit arises when the market value per share at the time when the option is being exercised exceed the exercise price.

Therefore, in Etambuyu's case the gain arising on exercise of the options of K120,000 computed in (a) (i) above would have been exempt from income tax if the share option scheme was approved for tax purposes.

Additionally transfer of shares under an approved share option scheme is exempt from property transfer tax.

(b) ETAMBUYU

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2020

	K	K

Zambian Employment Income		
Salary		360,000
Housing allowance		
(K360,000 x 30%)		108,000
Life insurance premiums		
(K2,500 x12)		30,000
Income from share options		
(K4.20-K3.00) x 100,000		120,000
		618,000
Zambian Investment income		
Copyright royalties (K15,300 x100/85)		18,000
Income from foreign sources		
Dividends from Tascovia		
(T$1,300 x 100/65) x K14	28,000	
Fixed deposit interest from Tascovia		
(T$400 x 100/80) x K14	7,000	
		35,000
Total		671,000

Income Tax			
On first K74,400		9,960	
On excess (K671,000 – K74,400) x 37.5%		223,725	
		233,685	
Less tax already paid			
PAYE		(218,200)	
WHT on Copyright Royalties			
(K18,000 x 15%)		(2,700)	
Less Double taxation Relief on:			
- Dividends from Tascovia	9,654		(W1)
- Fixed deposit interest from Tascovia	1,400		(W2)
		(11,054)	
Final income tax payable		1,731	

WORKINGS

(1) Total assessable income

	K
Income chargeable to income tax	671,000
Gross Zambian dividend (K10,200 x 100/85)	12,000
Total assessable income	683,000

(2) Total amount of Zambian tax charge

	K
Income Tax	233,685
Withholding tax on Zambian dividend (15% x K12,000)	1,800
Total Zambian tax charge	235,485

1. Double taxation relief on the dividends from Tascovia:

This will be the lower of:

(i) The foreign tax paid on the dividends:

K28,000 x 35% = K9,800; and

(ii) The Zambian Tax Charge attributed to the dividends computed as:

$$\left(\frac{K28,000}{K683,000}\right) x\ K235,485$$

= K9,654

DTR will therefore be K6,296 being the lower amount.

2. Double taxation relief on the debenture interest from foreign sources:

This will be the lower of:

(i) The foreign tax paid on the fixed deposit interest:

K7,000 x 20% = K1,400; and

(ii) The Zambian Tax Charge computed as:

$$\left(\frac{K7,000}{K683,000}\right) x\ K235,485$$

= K2,413

DTR will therefore be K1,400 being the lower amount.

SOLUTION THREE

(a) Tiger Plc group of companies

TIGER PLC AND CATFISH LTD
COMPUTATION OF INCOME TAX PAYABLE FOR THE TAX YEAR 2020

	Tiger Plc	Catfish Ltd
	K	K
Profit before tax	340,000	152,200
Add:		
Depreciation	30,000	16,000
Amortisation	40,000	45,000
Entertainment expenses	116,000	50,500
Personal-to-holder car benefit	80,000	40,000
Finance costs (w1)	180,000	106,800
Tax EBITDA	786,000	410,500
Less:		
Interest	(180,000)	(106,800)
Capital allowances (w2)	(125,000)	(79,500)
Taxable business profits	481,000	224,200
Income tax computation		
(K481,000 x 30%) (K224,200 x 35%)	144,300	78,470
Less:		
Provisional income tax	(119,000)	(53,270)
Income tax payable	25,300	25,200

Workings

(1) Finance costs

Tiger Plc
Finance costs in excess of 30% of EBITDA are disallowed and carried forward to the next tax year. 30% of EBITDA = K786,000 x 30% = K235,800. The whole amount of K180,000 is tax allowed since it is below 30% of EBITDA.

Catfish Ltd
30% of EBITDA = K410,500 x 30% = K123,150. The whole amount of K180,000 is tax allowed since it is below 30% of EBITDA.

(2) Capital allowances for the tax year 2020

	Tiger Plc	Catfish Ltd
	K'000	K'000
Motor cars		

(400,000 x 20%) (280,000 x 20%)	80,000	56,000
Office equipment(K208,800 x 24/29 x 25%)	45,000	-
Factory building (K545,200 x 25/29 x 5%)	-	23,500
	125,000	79,500

(b) Tiger Plc and Catfish Ltd

VAT payable for the year ended 31 December 2020.

	Tiger Plc	Catfish Ltd
Output VAT	K'000	K'000
Sales		
(2,600,000 x 16%) (1,850,000 x 80% x 16%)	416,000	236,800
Total output VAT	416,000	236,800
Input VAT		
Purchases		
(1,300,000 x 16%) (980,000 x 75% x 16%)	208,000	117,600
Overheads (68,000 x 16%)	10,800	
(44,000 x 16% x 80%)		5,632
Total input VAT	218,800	123,232
VAT payable	197,200	113,368

SOLUTION FOUR

(a) Tax evasion refers to the use of illegal means to avoid tax. Such means include failing to disclose the relevant amounts of income and other forms of fraud which the tax payers may engage in. The aim of the tax payer practicing tax evasion is to defraud the government of the revenue.

Tax evasion arises when taxes are perceived to be too high or unfair on the tax payers. Another cause of tax evasion may be intentional where the tax payer intentionally hides some income.

Tax evasion is an offence and may be punishable by fines and/or imprisonment. On the other hand, tax avoidance is concerned with identifying any loop holes in the taxes legislation, and using them to minimize or defer tax liabilities. Tax avoidance is, however difficult to define more thoroughly.

Tax avoidance is caused by tax payers planning their tax affairs so as to minimize or defer taxation liabilities.

Tax avoidance is not an offence, though, to discourage its practice, the government may issue anti-avoidance legislation. Anti-avoidance legislation aims at sealing the loop holes in the taxes legislation so as to prevent taxpayers from taking advantage of them, and thereby reducing their tax liabilities lawfully.

Paying taxes is a moral obligation for all taxable persons. Actions taken to reduce taxes payable because the taxable person intentionally wants to pay less or because the taxes legislation is inadequate could be considered as unethical practices.

(b) Penalties and interest on overdue taxes and penalties for late submission of returns.

Penalties for late payment of taxes and interest on overdue taxes

(1) Provisional income tax for the quarter ended 31 March 2020.

The amount of K472,500 was delayed by 5 months from 10th April 2020 to 10 September 2020.

Penalty for late payment of tax:

5% x K472,500 x 5
K118,125

Interest on overdue income tax:
11.75% x K472,500 x5/12
=K23,133

WORKING 1
Provisional income tax payable
K5400,000 X 35% = K1890,000
Provisional income tax per quarter
K1890,000/4=K472,500.

(2) Provisional income tax for the quarter ended 30th June 2020.
The amount of K472,500 was delayed by 2 months and 21 day from 10th July 2020 to 1st October 2020.

Penalty for late payment of tax
5% x K472,500 X 3 = K70,875.

Interest on overdue income tax
11.75% x K472500X 3/12 = K13,880.

(3) Balance of income tax for the tax year 2019.

The balance of income tax for the tax year 2019 of K217,000 paid on 1st October 2020 was delayed by three months and ten days from its due date of 21st June 2020 .

Penalty for late payment of tax

5% x K217,000 X 4= K43,400.

Interest on overdue income tax

11.75% x K217,000 X 3/12= K6,374.

WORKING TWO
Computation of the balance of income tax

K5,100,000 - K5,720, 000
=K620000X 35%=k217,000.

The tax returns that were filed/submitted late were as follows.

(1) The return of provisional income for the tax year 2019.

This return must have been filed by 31 March 2019. When filed on 10th September 2020, it was delayed by 5 months and 10 days. However, the penalty is only charged when the return is filed after 10 April. So, the penalty applies to a period of 5 months only. The applicable penalty to a company is at the rate of K600 (2,000 penalty units) per month or part thereof.

Penalty chargeable is therefore:
K600 X 5 = K3,000

(2) The self-assessment income tax return for the tax year 2019.

This return must have been submitted by 21 June 2019. When filed on 1st October 2019 it was delayed by 3 months and nine days.

Penalty chargeable is:
K600x4=K2400.

SOLUTION FIVE

(a) Deliberate behaviour

Deliberate behaviour involves a breach of a tax obligation where there is intent on the part of the taxpayer and so does not qualify as careless behaviour. Examples of deliberate behaviour include failure to maintain books and records, omission of transactions from the books and records, providing false or misleading information.

Other categories of tax defaults

(1) Careless behaviour without significant consequences

Carelessness in this context refers to a failure to take reasonable care. Significant consequences refer to the amount of tax underpaid as the result of the tax payer failing to take reasonable care when discharging tax obligations.

With Careless behaviour without significant consequences, the amount of tax underpaid by the tax payer as a result of not taking reasonable care when discharging tax obligations is insignificant with reference to the correct tax payable for the relevant period.

This category relates to defaults of a minor nature that are discovered during a tax audit, for example, computational errors and inadequate adjustments for personal expenditure in the statement of profit or loss and other comprehensive income.

(2) Careless behaviour with significant consequences

Significant consequences applies where the tax underpaid as a result of the tax payer failing to take reasonable care when discharging tax liabilities, is significant with reference to the correct tax payable for the relevant period.

Examples of careless behaviour include failure to take advice, neglecting to categorise expenditure into allowable and disallowable categories for tax purposes, insufficient standard of record keeping in the business and so on.

(b) (i) Conditions required to be met:

(1) The scheme should provide for the participation of all eligible employees.
(2) All employees participating in the scheme should no acquire more than 20% of the share to be issued under the scheme.
(3) Only ordinary shares of the company may participate in the scheme.
(4) The scheme entitles an employee to acquire a set number of shares at a fixed price.
(5) The employee must be restricted to a set period of time to use an option to buy shares.
(6) The employees must be citizens or permanent residents of Zambia regardless of where they perform their duties.
(7) The scheme must be established in Zambia and the employer must be carrying on business wholly or partly in Zambia.

(ii) NGUBWE BANK LTD

COMPUTATION OF TAXABLE PROFIT

	K000	K000
Income before taxes		16710
Add:		
Increase in general provision	3264	
Depreciation	372	
Entertaining customers	170	
Total		3806
		20,516
Less:		
Rental income	1,096	
Unrealized exchange gains	500	
Profit on disposal of assets	180	
Hire purchase interest		
[25000+(16000*6) - 90000]	31	
Operating lease rental	25	
Capital allowances on office equipment		
K90,000 x 25%		
Other capital allowances	22.5	
Total	360	
Taxable income		
		2,214.5
		18,301.5

COMPUTATION OF COMPANY INCOME TAX PAYABLE

	K000	K000
Company income tax K18,301.5 X 35%		6,405.5
Less:		
WHT on interest income	1,325	
Provisional income tax	1,848	
Total		(3,173)
Income tax payable		3,232.5

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 16 MARCH 2021

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)

SunEyes Limited (SEL) is subsidiary of Sun Holdings which runs a number of firms operating in manufacturing, agricultural and service sectors. Through its service sector, SEL offers eye correction (laser) treatment, designer sunglasses, and cosmetic tinted contact lenses and, for certain spectacle frames, a range of complementary jewelry. The company has a strong reputation for the quality of its service but there are a number of other similar companies operating in the country and the market is fiercely competitive. SEL's policy is to buy existing shops in fashionable shopping malls which it believes are 'underperforming'.

SEL is located in a country which is currently undergoing recession. Consumer spending is falling throughout the economy and there is no immediate likelihood of a resumption of growth. The Chief Executive Officer (CEO) conducted a strategic review of the business in the context of the current economic recession. The following strategy was identified as critical for SEL's success:

(1) Focus on key customers.
(2) Ensure SEL's offerings meet the needs of its customers.
(3) Reduce or eliminate costs which do not address the needs of its customers.
(4) Build for the future using a programme of sustainable development.

The CEO believes that a good performance management system has to be in place for the company to survive the current tough economic climate. The company has used earnings per share (EPS) growth and share price in order to assess performance. However, due to the high competitive environment, SEL also compares its prices with those of its competitors.

Financial data for SEL

	2018	***2019***
	Km	***Km***
Profit before interest and tax	25.35	21.75
Interest paid	2.0	3.9
Profit after interest and tax	17.5	13.4
Average number of shares in issue (millions)	80	80

Capital employed at the end of the year:	***Km***
2017	49.6
2018	52.05
2019	48.9

SEL aims for a capital structure of 50:50 debt to equity.

Costs of capital:	***2018***	***2019***
Equity	25.4%	30.6%
Debt (post-tax cost)	8.4%	7.8%

Corporation tax is at the rate of 35%

Stock market information:	***2018***	***2019***

Country' s market index	1112.7	724.45
Optician sector index	612.8	453.55
SEL (average share price)	K1.98	K1.85

The CEO has requested a report to the board comprehensively benchmarking the current performance of SEL with its main competitors. The board needs to have benchmarking exercise explained and then the results described. He recently acquired data of at least two (2) of SEL's main competitors namely Clear View Ltd (CVL) and Fresh Touch Ltd (FTL). The CEO has requested a critical assessment of this comparative data as well as the comments of the analysis.

Comparative data:

	CVL		FTL		SEL	
	2018	2019	2018	2019	2018	2019
Revenue (Km)	123	120	261	254	242	261
Profit for the year (Km)	9.08	8.87	19	13.20	17.5	13.4
Number of outlets	9	10	13	18	10	11
Market share	12.4%	12.2%	16.9%	15.6%	16.0%	16.0%
Average revenue per outlet (Km)	13.7	12.0	20.0	14.1	24.2	23.7

SEL has traditionally used a manual system for inventory management. The CEO has proposed the introduction of enterprise resource planning (ERP) system. This will automate its existing manual system while achieving many efficiency benefits primarily in its supply chain and inventory. The latest inventory count shows that the inventory level for both the frames and lenses has doubled. The Finance Director has suggested that a Just-in-Time (JIT) approach should be introduced to improve its stock management in tandem with the ERP system. She maintains that the ERP system could also be used as the basis for reorganising the business processes and adopting the JIT system.

Required:

(a) Describe the different perspectives of the balanced scorecard showing how the new strategy as outlined by the CEO links to these perspectives. Suggest appropriate performance measures for SEL for each of the points within the strategy. (8 marks)

(b) Assess the financial performance of SEL using EPS, share price and economic value added (EVA™), you should state any assumptions made. Evaluate the use of these performance metrics and how they may impact on the management. (12 marks)

(c) Prepare a report on the bench marking exercise which includes:

(i) An evaluation of the benefits and difficulties of benchmarking in this situation. (8 marks)

(ii) An evaluation of the performance of SEL clearly showing its performance against its competitors. (8 marks)

(d) Discuss the key benefits and issues that may arise from the implementation of a JIT system in the company. (4 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

Chikuni Crafts Ltd (CCL) makes and sells a range of craft products in Munsanza. CCL employs experienced sculptors who have an excellent reputation for producing high-quality products. CCL has been approached by Oriental Products Ltd (OPL) and asked to make two products. The two products are a water falls known as 'Mosi' and a large garden gnome known as 'Munda'. The management accountant of CCL has estimated the variable costs per unit of Mosi and Munda as being K1,245 and K207.50 respectively. She based her calculations on the following information:

(i) Product data

	Mosi	Munda	Other products
Production/sales (units)	4,000	8,000	32,000
	K000	K000	K000
Total direct material costs	900	300	2,400
Total direct labour cost	600	200	2,400

(ii) Total variable overheads for CCL will amount to K4,800,000 of which 30% relates to the procurement, warehousing and use of direct materials. All other variable overheads are direct labour related.

(iii) CCL currently absorbs variable overheads into product units using company-wide percentages on total direct material cost and total direct labour cost.

(iv) OPL is willing to purchase Mosi at K750 per unit and Munda at K150 per unit.

(v) CCL will not undertake any work which does not yield an estimated contribution to sales ratio of 28%.

(vi) The directors of CCL are considering switching to an activity-based costing system and recently appointed a firm of management consultants to undertake a detailed review of existing operations. As part of that review, the management consultants concluded that estimated relevant cost drivers for material and labour related overhead costs attributable to Mosi and Munda are as follows:

	Mosi	Munda	Other products
Direct material related overheads:			
The cost driver is the volume of raw materials held to facilitate production of each product.			
Material proportions per product unit:	4	7	4
Direct labour related overheads:			
The cost driver is the number of labour operations performed.			
Labour operations per product unit:	6	5	4

Required:

(a) Calculate variable cost per unit of both products using an activity-based costing approach. (8 marks)

(b) Prepare a financial analysis of the decision strategy which CCL may implement with regard to the manufacture of each product using the unit cost information available and your calculations in (a). (6 marks)

(c) Discuss the adoption of activity-based management (ABM) in companies such as CCL. (6 marks)

[Total 20 marks]

QUESTION THREE

Tulani Ltd is a group of several companies. Tulani has business interests running in several different divisions and Southern Africa countries. The company has given full autonomy for the sector managers with regard to operational decision making in each division or country. The sector performance is evaluated on the achievement of a pre-determined profit.

Lani, the largest division of the conglomerate, has two companies Tula and Anai. Tula produces only one (1) type of component 123, which it transfers to Anai and also sells externally. Anai uses this component in its final product B3 and Tula is the sole supplier of the component, at present. Anai is under pressure to reduce the cost of B3 due to the stiff competition it faces in the market place.

The following estimates of Tula are available for 2019.

	K
Sales revenue	
Sales to Anai @ K240 per unit	2,400,000
External sales @ K270 per unit	1,620,000
Variable costs @ K132 per unit	2,112,000
Less:	
Fixed costs	600,000
Profit	1,308,000

Note: The above activity level represents the normal activity level for Tula.

The following details for Anai are available for 2019 (before accounting for the costs of internal transfers).

	K
Sales revenue @ K510	5,100,000
Less:	
Variable costs @ K63 per unit	630,000
Fixed costs	900,000
Profit	3,570,000

Amano Ltd is one of the companies in the group. It is a motorcycle manufacturer located in mountainous SSS country. It manufactures and sells a complete range of motorcycles and has a present market share of 15% of the SSS motorcycle markets. Amano uses a system of standard Costing to set its budgets. Budgets are set semi-annually by the Finance department after the approval of the Board of Directors at Amano. The Finance department prepares variance reports each month for review in the Board of Directors meeting, where actual performance is compared with the budgeted figures. Doreen Tumelo, group CEO of the Tulani is of the opinion that Kaizen costing method should be implemented as a system of planning and control in the Amano.

Required:

(a) Discuss the factors that lead to divisionlisation in an organization such as Tulani Plc. (4 marks)

(b) Prepare profit statements for Tula and Anai for the following situations:

(i) If internal transfers are valued at full costs

(ii) If internal transfers are valued as two-part-tariff system where the annual fixed fee is K300,000

(iii) If a dual pricing system is used (assume market price and marginal cost are the two prices used) (9 marks)

(c) Recommend key changes vital to Amano's planning and control system to support the adoption of Kaizen costing concepts. (7 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

Today's organisations vary widely in the perception of the value provided by the budgeting process. At one end of the spectrum there are executives who consider the budget 'a tablet of stone' which gives them control. On the other hand the budgetary process is anathema to many operational managers who view the budget as being a pointless exercise and completely irrelevant to their day-to-day needs.

During recent years the business environment has become far more complex, dynamic, turbulent and uncertain. Shorter product lifecycles coupled with technological advancement has focused greater attention on innovation as a determinant of corporate success.

The manner in which resources are deployed is an organisation-wide consideration, and the drive to maximise 'value-added' encompasses the finance department. In this respect it could be argued that traditional budgeting processes cannot provide the value addition required in the today's organisations. Therefore, there has been a shift towards 'Beyond budgeting' in many organisations today.

Required:

(a) Explain five (5) weaknesses of the traditional budgeting approach. (5 marks)

(b) Discuss the developments in the concept of beyond budgeting in both the private and public sector organisations. (15 marks)

[Total: 20 Marks]

QUESTION FIVE

Soweto Innovations Ltd, a company established three (3) years has a growth rate 15% hence making it as a market leader. The Information Systems strategy within the SI has been developed over the years of its existence. However, the basic approach has always remained unchanged. An information technology budget is agreed by the board each year. The budget is normally 5% to 10% higher than the previous year's to allow for increases in prices and upgrades to computer systems.

Systems are upgraded in accordance with user requirements. Most users see Information technology systems as tools for recording day-to-day transactions and providing access to accounting and other information as necessary. There is no Enterprise Resource Planning System (ERPS) or Executive Information System (EIS).

The board tends to rely on reports from junior managers to control the business. These reports generally provide the information requested by the board, however, they are focused on a tactical level and do not contribute to strategy formulation or implementation.

Required:

(a) Advise the board on how an ERPS and EIS could provide benefits over and above those provided by transaction processing systems. (12 marks)

(b) Recommend to the board how it should go about improving its budgetary allocations for IT and how it should evaluate the benefits of ERPS and EIS. (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

CA 3.5 SUGGESTED SOLUTIONS

SOLUTION ONE

a) The four perspectives of the balanced scorecard are:
   - Financial – how do we optimally serve our shareholders' interests?
   - Customer – how should we present ourselves to our customers?
   - Internal business process – what processes are critical to achieving our customer and

Shareholder goals and how can we optimise these?
   - Learning and growth – how do we maintain our ability to change and grow?

The new strategy addresses these perspectives in different ways. Ultimately all of the Perspectives will have financial effects whether in the short or long-term interests of our shareholders.

Focus on key customers: this directly addresses the customer perspective and will require the collection of the profiles and needs of these customers in order to generate market growth and so improve our financial position. Suitable performance measurement would segment our market (for example, by customer age, income or gender) and identify our changing market share within each segment.

Ensuring we meet key customer needs: again addresses the customer perspective but will also impact on the products/services that SEL offers and so affect the process perspective. Suitable performance measures from the customer perspective would be levels of repeat business and customer satisfaction and from the process perspective. The process perspective could be benchmarked against competitors or could be monitored internally, again through the review of customer satisfaction.

Cost cutting: this connects to the process perspective as it seeks to focus the business on value added activities. Suitable performance measures would be efficiency savings generated by removing or reducing unnecessary processes/products. SEL could possibly look to simplify its supply chain by cutting the number of suppliers with which it deals.

Amend current processes to meet the new focus: clearly, this takes the process perspective and measurement of this objective will be by way of the achievement of goals in a specific change programme to assist the other objectives.

Programme of sustainable development: this objective looks to the future and this is the learning and growth perspective but may also have a knock on impact on the other three perspectives. In terms of appropriate performance measures, SEL may monitor its energy efficiency.

b) The performance of SEL has declined with earnings per share falling by 22.7% (W2) from last year. Normally, this would imply that the company would be heavily out of favour with investors. However, the share price seems to have held up with a decline of only 6.6% compared to a fall in the sector of 40.5% and the market as a whole of 42.6% (W3). The sector comparison is more relevant to the performance of SEL's management as the main market index will contain data from manufacturing, financial and other industries. Shareholders will be encouraged by the implication that the market views SEL as one of the better prospects within an outperforming sector.

This view is consistent with the calculated positive EVA™ for 2019 (K5.9m, (W1)) which SEL generated. EVA™ has fallen from 2018 but it has remained positive and so the company continues to create value for its shareholders even in the poor economic environment. It therefore remains a worthwhile investment even in a falling market.

Evaluation of performance metrics

Metrics	**Advantages**	**Disadvantages**
EPS	• Widely used measure. • Important to shareholders since it relates to dividend growth.	• Based on accounting profit which is subject to manipulation. • Comparison is only between two which can be misleading.
Share price	• Widely used by shareholders to monitor investments	• Volatile • Subject to fluctuations outside of manager's control. • Managers may be encouraged to make decisions which boost short term share price
EVA™	• Widely used and measured. • Uses the economic profit.	• Numerous and complex adjustments to accounting profit must be made.

Conclusion as to impact of metrics on management

Both EPS and share price may encourage managers to make decisions which improve short term financial performance but may impact on long term profitability. EVA aims to partially tackle this issue through the adjustment of accounting figures but the large number of adjustments can make this measure unwieldy.

Workings:

1. EVA™ calculations for the periods given are:

	2018	2019
	Km	Km
Profit after interest and tax	17.5	13.4
Interest (net of tax at 35%)	1.3	2.5
Net operating profit after tax (NOPAT)	18.8	15.9
Capital employed (at year start)	49.6	52.05

Assumptions:
Economic and accounting depreciation are equivalent.
There are no non-cash expenses to adjust in the profit figure.
There are no additional adjustments to make regarding goodwill.

Cost of capital:
WACC = (% equity x Ke) +(% debt x Kd)

2018 (50% x 25.4%) + (50% x 8.4%) =

2019	(50% x 30.6%) + (50% x 7.8%)	16.9% = 19.2%

EVA™ = NOPAT – (Capital employed x WACC)

2018	18.8 - (49.60 x 16.9%)	= 10.4
2019	15.9 - (52.05 x 19.2%)	= 5.9

2. Earnings per share

2018	2019	Change
17.5/80 = 0.22	13.4/80 = 0.17	(0.22 – 0.17)/0.22 = - 22.7%

3. Stock market information

	2018	2019	Change
Country' s market index	1,683.6	965.9	(1,683.6 – 965.9)/1,683.6 = - 42.6%
Optician sector index	1,017.0	604.7	(1,017 – 604.7)/1,017 = - 40.5%
SEL (average share price)	K1.98	K1.85	(1.98 -1.85)/1.98 = - 6.6%

c) Report

To: Board of SEL
From: Management Accountant
Date: xx.xx.xx
Subject: Benchmarking performance

This report describes the benefits and problems associated with benchmarking the company's
performance. Then, the performance of SEL and its two main competitors is calculated and evaluated.

Benchmarking is the use of a yardstick to compare performance. The aim of benchmarking is to identify where best practice lies and then to analyse what constitutes the best operational practice so this can be implemented across the business.

Competitor benchmarking uses a direct competitor with same or similar processes as the benchmark.

(i) **Advantages of benchmarking**

Improved performance

Benchmarking could be a key tool in enabling SEL to improve its performance and increase profitability in this highly competitive market. There should be improvements across all areas, e.g. quality, customer service.

Achievability

The improvements will be seen as achievable since the new methods have actually been used in another organization. This should encourage managers and employees to buy-in to the change process.

Improved understanding of environmental pressures
The benchmarking process should enable SEL to get back in touch with the needs of its customers and to better understand its competitors. The industry is highly competitive and so this greater awareness will be essential for future success.

Eliminates complacency
Benchmarking can help SEL to overcome complacency and to drive organizational change.

Continuous improvement
Benchmarking can be carried out at regular intervals and can therefore drive continuous improvement in the business.

Disadvantages of benchmarking

Identifying best practice
It may prove difficult to identify the organizations that are best in class.

Costs
The actual benchmarking exercise will be costly for SEL. It is essential that the benefits of the exercise are greater than the associated costs.

Impact on motivation
If comparisons are unfavourable the information could have a negative impact on employee motivation and this would result in further inefficiencies.

Deciding which activities are to be benchmarked
This is a difficult process. SEL may not realize that there are better ways of doing things until they have seen their competitors carrying out certain processes.

Managers become too target driven
Benchmarking can result in managers becoming obsessed with hitting targets. This could sometimes be counterproductive.

Collection of data
The actual collection of data can be time consuming and costly. Data may not be readily accessible for all areas of performance measurement and competitors may be unwilling to share details.

(ii) SEL's performance benchmarked

The comparison of SEL to its competitors, shows that SEL has done well to increase its total revenues but this has come at the cost of a significant fall in profit compared to CVL . SEL should look into its pricing policy as it may have been buying sales by offering heavy discounts and these may not be sustainable in the long term.

The FTL drop in profit is greatest of all but this may be explained by problems in the range or quality of its services. FTL opened 6 new outlets in the period but there has been an overall fall in revenue of 2.7%. SEL should analyse FTL's offering to its customers in order to avoid making the same mistakes. .In terms of market share, SEL has maintained its position against slight falls in its competitors.

In revenue per outlet, SEL has outperformed its competitors, however, this may be due to SEL having a larger average outlets. The average outlet area for the three companies should be investigated.

Conclusion
In conclusion, SEL appears to be performing well with increased revenues and the maintenance of market share during the decline. The company must guard against the danger of eroding margins too far.

Signed: Management accountant

d) The main thrust of JIT is optimised inventory management so that frames and lenses arrive exactly when they are required for by customers. This saves on storage & warehousing costs and can lead to cost efficiencies. For JIT to be effective it requires close inter – relationships with suppliers and accurate demand forecasting so that suppliers are aware in advance of sales requirements and expected lead times for delivery of those items of inventory.

SOLUTION TWO

(a) The management accountant of CCL would have calculated the variable costs per unit as follows:
Workings:
(i) Direct material cost per unit:

	Mosi	Munda
Total costs (K)	900,000	300,000
Production units	4,000	8,000
Cost per unit (K)	225.00	37.50

(ii) Direct labour cost per unit:

	Mosi	Munda
Total costs (K)	600,000	200,000
Production units	4,000	8,000
Cost per unit (K)	150.00	25.00

(iii) Variable overheads:

Material related overhead cost = 30% x K4,800,000 = K1,440,000
Labour related overhead cost = 70% x K4,800,000 = K3,360,000
Material related overhead has material volume that is required as the cost driver.

Total volume factor = Units X Required per unit

Mosi	4,000 X 4 =	16,000
Munda	8,000 X 7 =	56,000
Other	32,000 X 4 =	128,000
Total volume factor =		200,000

Material related overhead per unit of volume = K1,440,000/200,000 = K7.20. Therefore, overhead cost per product unit will be as follows:
Product:
Mosi K7·20 x 4 = K28·80
Munda K7·20 x 7 = K50·40

Labour related overhead has the number of operations that are performed as the cost driver.
Total operations factor = Units X Required per unit

Mosi	4,000 X 6 =	24,000
Munda	8,000 X 5 =	40,000
Other	32,000 X 4 =	128,000
Total volume factor =		192,000

Labour related overhead per operation = K3,360,000/192,000 = K17.50. Therefore, overhead cost per product unit will be as follows:
Product:
Mosi K17.50 x 6 = K105.00

Munda K17.50 x 5 = K87.50

Product unit costs using an ABC approach to product costing would be:

	Mosi	Munda
	K	K
Direct material costs	225.00	37.50
Direct labour costs	150.00	25.00
	375.00	62.50
Variable overhead		
Material related	28·80	50·40
Labour related	105·00	87·50
Total variable cost	508·80	200·40

(b) OPL is willing to purchase the Mosi at K750 per unit and the Munda at K150 per unit. At these prices CCL will achieve sales of 4,000 units of the Mosi and 8,000 units of the Munda. The product costs per unit together with the respective contribution per unit may be calculated using either the existing basis for the absorption of variable overhead cost by product units or alternatively by employing an ABC approach which attempts to give recognition to the cost drivers which causes costs to occur.

Product information (by unit) is as follows:

	Mosi		Munda	
	Current basis	ABC basis	Current basis	ABC basis
	K	K	K	K
Direct material cost	225.00	225.00	37.50	37.50
Direct labour cost	150.00	150.00	25.00	25.00
Variable overhead cost:				
Material related	90.00	28.80	15.00	50.40
Labour related	157.50	105.00	26.25	87.50
Total variable cost	622.50	508.80	103.75	200.40
Selling price	750.00	750.00	150.00	150.00
Contribution	127.50	241.20	46.25	(50.40)
Contribution: sales (%)	17.00	32.16	30.83	(33.60)

At present CCL will not undertake any work which does not yield an estimated contribution to sales ratio of 28%. The current basis of product costing would suggest that Munda should be produced as per the request of OPL as a contribution: sales ratio of 30·83% would be obtained. However, the current basis of product costing would suggest that CCL should not undertake production of Mosi because at a selling price of K750 per unit, the estimated contribution: sales ratio of 17% would be lower than the desired contribution: sales (%) of 28%.
Using an activity based costing approach which gives management greater visibility of the true costs of each product would lead CCL to a different production strategy. CCL would opt to produce Mosi for OPL since a contribution: sales ratio of 32.16 would be obtained. However CCL would decline to undertake the production of the Munda since it would result in a negative contribution: sales ratio of (33.60%).

(c) Activity-based management (ABM) is a method of identifying and evaluating activities that a business performs using activity-based costing to carry out a value chain analysis or a re-engineering initiative to improve strategic and operational decisions in an organisation. Activity-based costing establishes relationships between overhead costs and activities so that overhead costs can be more precisely allocated to products, services, or customer segments. Activity-based management focuses on managing activities to reduce costs and improve customer value.

Kaplan and Cooper (1998) divide ABM into operational ABM and strategic ABM:

Operational ABM is about 'doing things right', using ABC information to improve efficiency. Those activities which add value to the product can be identified and improved. Activities that don't add value are the ones that need to be reduced to cut costs without reducing product value.

Strategic ABM is about 'doing the right things', using ABC information to decide which products to develop and which activities to use. This can also be used for customer profitability analysis, identifying which customers are the most profitable and focusing on them more.

A risk with ABM is that some activities have an implicit value, not necessarily reflected in a financial value added to any product. For instance a particularly pleasant workplace can help attract and retain the best staff, but may not be identified as adding value in operational ABM. A customer that represents a loss based on committed activities, but that opens up leads in a new market, may be identified as a low value customer by a strategic ABM process.

ABM can give middle managers an understanding of costs to other teams to help them make decisions that benefit the whole organisation, not just their activities' bottom line.

SOLUTION THREE

(a) The divisional organizational structure organizes the activities of a business around geographical, market, or product and service groups. Each such division contains a complete set of functions. Thus, the Tula division would handle its own accounting activities, sales and marketing, engineering, production, and so forth.

This approach is useful when decision-making should be clustered at the division level to react more quickly to local conditions. The divisional structure is especially useful when a company has many regions, markets, and/or products.

The key factors in favor of the divisional structure are as follows:

- *Accountability.* This approach makes it much easier to assign responsibility for actions and results. In particular, a division is run by its own management group, which looks out for the best interests of the division.
- *Competition.* The divisional structure works well in markets where there is a great deal of competition, where local managers can quickly shift the direction of their businesses to respond to changes in local conditions.
- *Culture*. You can use this structure to create a culture at the divisional level that most closely meets the needs of the local market. For example, Anai division could have a culture specifically designed to increase the level of service to customers.
- *Local decisions*. The divisional structure allows decision-making to be shifted downward in the organization, which may improve the company's ability to respond to local market conditions.
- *Multiple offerings*. When a company has a large number of product offerings, or different markets that it services, and they are not similar, it makes more sense to adopt the divisional structure.
- *Speed*. This approach tends to yield faster responses to local market conditions.

(b) (i) Transfer price = 132 + (600,000/16,000) = 169.50
Internal transfers = 169.50 x 10,000 = 1,695,000

	Tula	Anai	Total
Sales:			
External	1,620,000	5,100,000	6,720,000
Internal	1,695,000	-	-
Total sales	3,315,000	5,100,000	6,720,000
Less costs			
Variable	2,112,000	630,000	2,742,000
Fixed	600,000	900,000	1,500,000
Transfer costs	-	1,695,000	-
Total costs	2,712,000	3,225,000	4,242,000
Profit	603,000	1,875,000	2,478,000

(ii) Transfer price = 132
Internal transfers = (132 x 10,000) + 300,000 = 1,620,000

	Tula	Anai	Total
Sales:			
External	1,620,000	5,100,000	6,720,000
Internal	1,620,000	-	-
Total sales	3,240,000	5,100,000	6,720,000

Less costs			
Variable	2,112,000	630,000	2,742,000
Fixed	600,000	900,000	1,500,000
Transfer costs	-	1,620,000	-
Total costs	2,712,000	3,150,000	4,242,000
Profit	528,000	1,950,000	2,478,000

(iii) Transfer price
Received @ full cost = K1,695,000
Paid @ marginal cost = K1,320,000

	Tula	Anai	TP adjustment	Total
Sales:				
External	1,620,000	5,100,000		6,720,000
Internal	1,695,000	-		-
Total sales	3,315,000	5,100,000		6,720,000
Less costs				
Variable	2,112,000	630,000		2,742,000
Fixed	600,000	900,000		1,500,000
Transfer costs	-	1,320,000		-
Total costs	2,712,000	2,850,000		4,242,000
Profit	603,000	2,250,000	(375,000)	2,478,000

(c) **Kaizen Costing** emphasizes on *small but continuous improvement*. Targets once set at the beginning of the year or activities are *updated continuously* to reflect the improvement that has already been achieved and that are yet to be achieved.
The suggestive changes which are required to be adopted Kaizen Costing concepts in Amano are as follows:
Standard Cost Control System to Cost Reduction System: Traditionally Standard Costing system assumes stability in the current manufacturing process and standards are set keeping the normal manufacturing process into account thus the whole effort is on to meet performance cost standard. On the other hand Kaizen Costing believes in continuous improvements in manufacturing processes and hence, the goal is to achieve cost reduction target. The first change required is the standard setting methodology i.e. from earlier Cost Control System to Cost Reduction System.
Reduction in the periodicity of setting Standards and Variance Analysis: Under the existing planning and control system followed by the Amano, standards are set semiannually and based on these standards monthly variance reports are generated for analysis. But under Kaizen Costing system cost reduction targets are set for small periods say for a week or a month. So the period covered under a standard should be reduced from semi-annually to monthly and the current practice of generating variance reports may be continued or may be reduced to a week.
Participation of Executives or Workers in standard setting: Under the Kaizen Costing system participation of workers or executives who are actually involved in the manufacturing process are highly appreciated while setting standards. So the current system of setting budgets and standards by the Finance department with the mere consent of Board of Directors required to be changed.

SOLUTION FOUR

Part a

The weaknesses of traditional budgeting processes have been the subject of much attention and many commentators. Hope and Fraser consider that such weaknesses include the following:

1. Budgets prepared under traditional processes add little value and require far too much valuable management time which would be better spent elsewhere.

2. Too heavy a reliance on the 'agreed' budget has an adverse impact on management behaviour, which can become dysfunctional with regard to the objectives of the organisation as a whole.

3. The use of budgeting as a base for communicating corporate goals - setting objectives, continuous improvement etc - is seen as contrary to the original purpose of budgeting as a financial control mechanism.

4. Most budgets are not based on a rational, causal model of resource consumption, but are often the result of protracted internal bargaining processes.

5. Conformance to budget is not seen as compatible with a drive towards continuous improvement.

6. Traditional budgeting processes have insufficient external focus

1 mark for each x 5 = 5 marks

Part b

A viewpoint has emerged during recent years which challenge the traditional approach to the budgeting process that has operated in both private and public sector organisations since time immemorial. While there may be comfort in tradition, what is being proposed may be more relevant to the current business environment and the challenges that must be overcome by organisations facing increasing competitive pressures. *1 mark*

BEYOND BUDGETING MODEL - PRIVATE SECTOR

In the private sector, managers are forced to consider current and future opportunities and threats, particularly where rolling monthly forecasts of financial performance operate together with a focus on other non-financial 'value drivers'. In essence, the 'beyond budgeting' model entails devolved managerial responsibility where power and responsibility go hand in hand. The view held by proponents of the beyond budgeting model is that the following benefits may accrue as a result of its successful application by management:

It creates and fosters a performance climate based on competitive success. Goals are agreed via reference to external benchmarks as opposed to internally-negotiated fixed targets. Managerial focus shifts from beating other managers for a slice of resources to beating the competition.

It motivates people by giving them challenges, responsibilities and clear values as guidelines. Rewards are team-based, in recognition of the fact that no single person can act alone to achieve goals.

It devolves performance responsibilities to operational management who are closer to the

'action'. This uses the 'know-how' of individuals and teams interfacing with the customer, which in turn enables a far more rapid adaptation to changing market needs.
It empowers operational managers to act by removing resource constraints. Key ratios are set, rather than detailed line-by-line budgets. For example, gearing and liquidity ratios may be used to show there is enough cash in the bank to meet liabilities. Local access to resources is thus based on agreed parameters rather than line-by-line budget authorisations. This is aimed at speeding up the response to environmental threats and enabling quick exploitation of new opportunities.
It establishes customer-orientated teams that are accountable for profitable customer outcomes. These teams agree resource and service-level requirements with service departments via the establishment of service level agreements.
It creates transparent and open information systems throughout the organisation, which should provide fast, open and distributed information to facilitate control at all levels. The IT system is crucial in flexing the key performance indicators as part of the rolling forecast process.
1.5 marks x 4 valid points = 6 marks

IN THE PUBLIC SECTOR

The legal framework of public sector organisations would probably prevent such a system being introduced. As with all alternatives, the success of a particular process depends on the needs of the individual organisation. The alternative of the beyond budgeting model places considerable emphasis on the need for organisational, managerial and cultural changes in order that it may be successfully applied by organisations. This will present considerable behavioural challenges and individual managers might become overwhelmed by the complexity of decision-making in such an unregulated decision-making environment.

In the public sector, the budget process inevitably has considerable influence on organisational processes, and represents the financial expression of policies resulting from politically motivated goals and objectives. Yet the reality of life for many public sector managers is an increased pressure to perform in a resource-constrained environment, while also being subjected to growing competition.

The desire to generate improved performance - essentially considered the driver for the beyond budgeting model - is present in the public sector evidenced in initiatives such as key performance indicators and 'best value' plans. But this is not matched by a desire for the flexibility inherent in the model. In terms of beyond budgeting, managers in such organisations are likely to remain constrained by the inability of their organisation to change.
1.5 marks x 4 valid points = 6 marks

CONCLUSION

We see the beyond budgeting model as having particular relevance for knowledge-based companies which are increasingly a feature of a developed economy. Other companies may see specific benefits in such a system, given the rapidly changing environment in which they also operate. These changes will not be introduced without conflict and difficulty due to the challenges faced in introducing change. Such challenges may be beyond the achievement of the public sector, due to the expression in the budget of politically-motivated policies and objectives developed within a complex legal and financial framework. What we can say, however, is that if we are to see the successful application of the beyond budgeting model in both private and public sectors, then this must be underpinned by a considerable organisational, cultural and managerial change. Otherwise it is doomed to failure. 2 marks

SOLUTION FIVE

(a) Explanations of system types

A transaction processing system is designed primarily for processing transactions, often within a stand-alone system for a job-specific application. Management reports are produced from such systems, but these are essentially a summary of the transactions that have been processed or provide an analysis of data on the computer master files. The information produced by transaction processing systems is therefore of operational or tactical value, but not strategic value, and it is used to prepare reports for the line management responsible for the particular area of operations.

An ERPS is a commercial software package that integrates information from a variety of sources, both internal and external. The information is both financial and nonfinancial.
An ERP system might capture transaction data from a number of different transaction systems, as well as information from external sources (such as suppliers).
This information can then be used to prepare specially-designed reports for management covering a range of different activities, and of strategic as well as tactical value.

Benefits of an ERP system

ERP systems can be used to provide performance data for multi-functional activities, rather than specific transactions, and so can be valuable for activity-based costing, balanced scorecard performance analysis and supply chain management.

ERP systems can provide benefits in excess of transaction processing systems because they provide better-quality strategic management information for senior management. The actual value of any particular ERPS obviously depends on the circumstances of each case, but as a general rule, an information system is beneficial if the expected improvements in management decision-making exceed the cost of providing the system.

Benefits of an EIS

Executive information systems (EIS) as their name suggests, provide information to senior executives within an organisation, from information sources both inside and outside the organisation. They allow executives to monitor the performance of the organisation and scan general business conditions at any time and in 'real time'. They allow executives to obtain summary performance information, and 'drill down' into further detail if required. They can also be used to make 'one-off' file interrogations to obtain information. Crucially, they are easy to use, and an executive does not have to be an IT expert or systems expert to benefit from using an EIS.

An EIS allows senior management to obtain performance information in 'real time' and should therefore help management to improve their control over the organisation. This is a benefit that transaction processing systems are unable to provide.

(b) Budgetary allocations

Budget allocations for IT in the past have been made using an inefficient system. The system has been to allow a 5% to 10% increase in the budget allocation each year to allow for inflation and system upgrades. This approach to budgeting inevitably builds 'slack' into the budget and encourages wasteful spending.
The system is also weak because it appears to be based on the view that the existing IT systems are more or less satisfactory, and will simply need improving or changing with upgrades from time to time. The budgeting process does not appear to consider whether the IT systems remain adequate for the information needs of the organisation.

The appropriate approach should be to consider the information requirements of the organisation and its management, and the benefits that would be obtained from the information. Costs of providing information should be compared with the potential benefits. New IT system developments should also be considered, in terms of costs and benefits. Instead of following an incremental budgeting approach, an activity based budgeting approach or a zero-based budgeting approach would probably be more effective in constructing a better budget.

Evaluation of benefits

The benefits of an ERPS or EIS are difficult to measure quantitatively. They should provide better management information, and it is important that any new system should be capable of providing the information that management need.

To estimate the benefits of a system, it would be appropriate to consider the improvements in management information that the system would provide (more information, more up-to-date information, more accurate information, and so on) and how this should improve the quality of decision-making within the organisation.

If an estimate can be made of how decision-making might improve, it should be possible to make a rough estimate of the potential benefits, for example in terms of revenues, cost savings or profits.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 19 MARCH 2021

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. Resent legible and tidy work.

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

10. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question paper.

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE (COMPULSORY)

The Matoka Gorge Hydro Electric Scheme (MGHES) is a proposed 2400 Mega Watts hydroelectric power project planned on the Zambezi River between Zambia and Zimbabwe.

Due to severe power shortages in Zimbabwe and Zambia, the Zambezi River Authority (ZRA), an organization equally owned by the two (2) Governments is considering investing in the hydropower scheme that would cost USD 4.5 billion. Peak demand of electricity in both countries is forecast to grow annually into the foreseeable future.

Project benefits include, an anticipated increase in renewable energy sources from 42% to 80%, moving Zambia and Zimbabwe towards carbon compliance benchmarks. MGHES is also expected to shift dependence on coal fired power plants to hydro power, which does not emit carbon dioxide, and therefore reduces global warming, making it greener.

The project will be financed using a Build-Operate-Transfer (BOT) financing model and will therefore place no fiscal strain on either government as no sovereign guarantees will be required. The Project Consortium, which includes General Electric and Power Construction Corporation, an Italian company and a Joint venture of Chinese firms is expected to finance the development costs and construct the proposed project over the next five (5) years as follows:

Month	JAN 2021 (Now)	Dec 2021	Dec 2022	Dec 2023	Dec 2024	Dec 2025 (Works End)
Development Costs (US$ Million)	NIL	500	1,000	1,000	1,000	1,000

The 4.5 Billion funding for the MGHES will be sourced by the Project Consortium as follows:

Source	Amount (US$ Million)
Retained earnings	1,388
Rights issue (net of costs)	1,316
Concessional five year loan facility from the African Development Bank	480
Syndicated Bank loan facility with a five year term at fixed interest rates of 16%	1,316
Total Funding	**4,500**

The concessional loan is 6% cheaper than the syndicated bank term loan. Issue costs associated with the loans are 1.5%. Both loans will be secured now. The rights issue will incur administrative costs of 2.0%. This financing package is expected to fully utilize the project's debt capacity.

The project is expected to generate after tax (but before WDA tax relief) net cash flows of US$ 1,268 million annually starting at the end of the sixth (6) year to the end of the consortium's concession period of fifteen (15) years. The MGHES project consortium will hand over the project to ZRA at no additional cost at the end of the concession.

Corporate tax is at 30% and paid a year in arrears. Due to tax incentives granted by the Zambia Development Agency (ZDA), Capital expenditure will attract a 50% Work Down Allowance (WDA) on a straight line basis. The consortium has sufficient profits to utilize all capital allowances from the project.

Companies in the energy industry have an Equity beta of 1.12, with average gearing of 70% equity and 30% debt by market values. The risk free rate is 10% and the return on the market is 15.8%.

Assume that the BGHES will have the same business risk with the project consortium's hydro energy business and that corporate debt is risk free. The cost of equity should be rounded to a whole number.

NOTE:

Assume that it is now 1 January 2020. Students are STRONGLY advised to use annuity tables when discounting cash flows that extend to the end of the project. Cash flows should be rounded to the nearest million.

Required:

(a) Determine the adjusted present value (APV) of the MGHES proposed project and recommend whether it should be undertaken on financial grounds. Your computations should include :

(i) A Base Case NPV (10 marks)

(ii) Financing Side Effects (12 marks)

(b) Explain two (2) merits and two (2) demerits of syndicated loans. (4 marks)

(c) Discuss the strategies that the project consortium could use to minimize corporate taxes and manage restrictions on remittance of profits. (10 marks)

(d) Hydro generated electricity is greener than that from coal and is therefore used by many energy companies to assist them in achieving the objective of becoming carbon neutral.

Explain how 'carbon credit trading' can be used to reduce the impact of business activities on the environment. (4 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

Kaya Plc is a listed company operating in the tourism industry. The company operates hunting concessions and owns lodges in a number of national parks in the country. The company has seen a significant reduction in business volumes due to changes in hunting regulations and the general economic downturn. The Board of Directors has expressed concern over a K15 million loan facility which was acquired to construct some of the lodges as the company has fallen behind on its loan repayment obligations. A proposal to sell the lodges and rent them back on a long-term basis is currently being considered. It is hoped that the proceeds from the sale of the lodges would be used to clear part of the outstanding loan facility. The remaining funds will be used for other investments.

The Board of Directors is of the opinion that reducing the level of debt by 60% will reduce the company's cost of capital. It is further assumed that the current market value of equity will remain unchanged after implementing the proposal.

The following extract from the most recent financial statements of Kaya limited is relevant:

	K'000
Non-current assets	45,000
Current assets	22,250
Total assets	67,250
Share capital (par value 25n per share)	3,250
Reserves	20,000
Non-current liabilities (5% redeemable bonds)	41,250
Current liabilities	2,750
Total capital and liabilities	67,250

Kaya Plc has a free cash flow to equity of K2,400,000 after taking into account taxation, interest and reinvestment in assets to maintain the current level of business. It can be assumed that the annual reinvestments in assets required to continue with the current level of business is equal to the annual amount for depreciation. Kaya has consistently used 40%

of its free cash flow to equity on new investments and distributed the balance. The market value of equity for Kaya is calculated using the free cash flow to equity model.

The bonds are redeemable at par in three (3) years and pay the coupon on an annual basis.

Kaya Plc's current equity beta is 1.2 and a debt beta of 0 can be assumed. The risk free rate is estimated to be 3% and the market premium is estimated at 5%. There is no comparable beta for companies in the hunting business only while the asset beta for lodges only is estimated at 0.3. It estimated that the hunting business constitutes 55% of the business while the lodges make up the remaining 45%.

Kaya's corporation tax rate is 25%. Kaya's current debt credit rating is estimated at BBB and expected to improve to A+ if non-current liabilities are reduced by 60%.

The three (3) year borrowing credit spread is on A+ rated bonds is 60 basis points and 80 basis points on BBB rated bonds, over the risk free rate of interest.

Required:

(a) Compute the cost of equity and weighted average cost of capital for Kaya Plc. before implementing the proposal, stating any assumptions made. (8 marks)

(iii) Calculate the cost of equity and weighted average cost of capital for Kaya Co. after implementing the proposal, stating any assumptions made. (8 marks)

(iv) Comment on the findings in relation to (a) and (b) above. (4 marks)

[Total: 20 Marks]

QUESTION THREE

MA Investments is a Zambian Company which specializes in procuring and constructing housing units for its clients. It was established by Mr Kapambwe as a small company ten (10) years ago. The company has grown by advertising its services mainly through face book and relying on referrals from satisfied customers. MA Investments has developed a good customer base from among Zambians living in the diaspora. The company has operated a fairly simple system in which its clients would sign online contracts and send money through the bank directly to the company's account or via mobile money transfer services. The company would then proceed to execute the assignment as instructed by the client.

In the past three (3) years, the company has been attracting locally based clients some of who make cash payments at the company's offices for the services to be provided. Business from the locally based clients has grown rapidly with most of its clients purchasing high value properties after making cash payments. MA Investments has recently been mentioned in the Financial Intelligence Center (FIC) report as having been possibly used as a conduit to launder money for individuals engaged in corrupt and other criminal activities. Mr.

Kapambwe is concerned that his business will be negatively affected and is seeking advice from your consultancy firm on a number of issues.

Required:

(a) Explain to MA management on the meaning of money laundering and the extent to which the company is exposed given the model of business that it operates. (4 marks)

(b) Advise on the steps that can be taken to assess the exposure risk for MA investments using the risk-based approach. (5 marks)

(c) Advise MA Investments on what measures it can put in place to prevent the possibility of being unintentionally involved in money laundering activities by its clients. (11 marks)

[Total: 20 Marks]

QUESTION FOUR

Kwacha Plc is a mobile network provider that specializes in the provision of voice call and data services and is listed on the Lusaka Securities exchange. The company has seen rapid growth in market size and has expanded its operations into the SADC region through acquisitions and mergers. The company is considering the acquisition of PAK Ltd, an unlisted company that has developed, patented and marketed a new invention in data broadband services. PAK Ltd is the only competitor that Kwacha Plc has in the provision of data services. PAK Ltd has applied for a license to provide voice call services and is currently waiting for approval from the regulatory authorities. There is a high likelihood that the license will be approved.

The regional economy in which Kwacha Plc is operating is projected to suffer slow economic growth over the next few years. The major reason for this subdued growth is the slump in commodity prices which account for more than 60% of the total earnings of the region. Some of the regional economies have been so badly affected such that the governments are considering approaching the International Monetary Fund (IMF) for financial support.

Required:

(a) Discuss the advantages and disadvantages of growth by acquisitions as compared with growth by internal investment. (6 marks)

(b) Discuss any three (3) defensive tactics that PAK Ltd can employ to prevent the acquisition from going ahead. (6 marks)

(c) Explain four (4) reasons why a takeover may fail to deliver an expected increase in wealth for a bidding company's shareholders. (4 marks)

(v) Explain the role and aims of the International Monetary Fund (IMF) and the conditions that are normally attached to its loans. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

ZAMA Limited is a Zambian company that is in the retail business, buying and selling commodities. The company imports large quantities of products from China and sells these to various Zambian shops on wholesale prices. The suppliers in China normally quote in United States Dollars (US$) as this is the internationally accepted currency for conversion. The Kwacha has been volatile against major convertible currencies like the US$ due to many factors in the recent past. This has led many businesses such as ZAMA Limited to consider the use of available instruments to manage the currency risk using derivatives and other instruments on the local and international markets as appropriate.

The Finance Director of ZAMA Limited pointed out that the company has just received an invoice of $250,000 for payment in six (6) months' time. He is very concerned with the movement in the exchange rate over the few weeks, with the Zambian kwacha depreciating from K12.5 to about K14 per US$. The Finance Director therefore wishes to take advantage of the available instruments to manage the currency risk. The following information was collected by the Finance Director of ZAMA Limited from a Bank, which normally uses the indirect quote;

K/US$	Spot rates	14.000 – 14.500
6 months forward		14.125 – 14.550

6 months money market (annual rate)

	Deposit	**Loan**
USD	5%	9%
Kwacha (K)	9%	25%

Required:

(a) Discuss one (1) advantage and two (2) disadvantages of using the following instruments to manage the currency risk:

(i) Forward Contract (3 marks)
(ii) Currency Options (3 marks)
(iii) Futures Contacts (3 marks)

(b) Calculate the outcome of the transaction if the currency risk was managed using:

(i) Forward Contract. (2 marks)
(ii) Money market. (4 marks)

(c) Advise management of ZAMA Limited on a strategy of managing the company's exposure to currency risk. (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

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA3.6 SUGGESTED SOLUTIONS

SOLUTION ONE

1(a)(i)

Adjusted Present Value	
	$'million
Base case present value	901
PV of bank term loan tax shield	7
PV of tax relief on concessional loan	50
PV of annual interest savings on concessional loan	299
PV of tax relief lost on annual interest savings on concessional loan	-82
PV of the rights issue costs	-27
PV of after – tax term loans issue costs	-19
APV	1130
Given the positive APV from the financial analysis, the project consortium should undertake the Batoka Gorge Hydro Electric Scheme .	

Base case NPV

	US$ Million					
Year	Development Costs	Cash in flows	Tax saving on capital allowances	Net cash flow	DF@15 %	PV($ Million)
0	-			-	1	-
Yr 1 (2020)	(500)		0	(500)	0.87	(435)
2	(1,000)		75	(925)	0.756	(699)
3	(1,000)		225	(775)	0.658	(510)
4	(1,000)		300	(700)	0.572	(400)
Y5 (2024)	(1,000)		300	(700)	0.497	(348)
Yr 6			300	300	0.432	130
Yr 6 - 15 (2025 - 2034)		1,268		1,268	2.495	3,164
Yr 15		-		-		-
				-		-
NPV						**901**

Annuity Factors (W1)

Cash In Flow	
15 Yr PVAF@15%	5.847
5 Yr PVAF@15%	3.352
10 Yr (6 - 15) PVAF@15%	**2.495**
Development Cost ($ Million)	
5 Yr PVAF@15%	3.352
1 Yr PVAF@15%	0.87
4 Yr (2-5) PVAF@15%	2.482
Development Cost	1,000
PV (Yr 2 - 5 Annuity)	**2,482**

Capital Allowances (W2)				
Year		US$' million	Tax benefit (30%) from Capital Allowances	Yr Received
0	Development Costs	0		
1	Capital allowances (50%)	0	-	0
	WDV	0		
	Development Costs	500		
2	Capital allowances (50%)	-250	75	2
	WDV	250		
	Development Costs	1000		
3	Capital allowances (50%)	-750	225	3
	WDV	500		
	Development Costs	1000		
4	Capital allowances (50%)	-1000	300	4
	WDV	500		
	Development Costs	1000		
5	Capital allowances (50%)	-1000	300	5
	WDV	500		
	Development Costs	1000		
6	Capital allowances (50%)	-1000	300	6
	WDV	500		

	Development Costs	-		
7	Capital allowances (50%)	-500	150	7
	WDV	-		
15	Disposal	-	-	-

Calculation of ungeared cost of equity and pre – tax cost of debt

βasset = βe (equity beta) x E/E+D(1-t) = 1.12 x 7/7+3(1- 0.3) = 0.86

$K_e = R_f + \beta_a (R_m - R_f)$ = 10% + [15.8% - 10%] x 0.86 = 14.8%
Approximately = 15%

1(a)(ii) PV of financing side effects

(i) PV of bank term loan tax shield

		K'million			
Amount (Km)	Interest rate	Interest/yr			
1316	16%	211			
Amount	Tax rate	Tax Relief			
(Km)			5yrPVAF@10%	1yr DF@10	Amount (US$ million)
211	30%	63	3.791	0.909	**218**

63 x 5yrPVAF@10% x (1.10)-1 = 218 x 3.791 x 0.909 = **218 million**

(ii) PV of tax relief on concessional loan

10% (16 - 6)		K'million			
Amount (Km)	Interest rate	Interest/yr			
480	10	48			
Amount (Km)	Tax rate	Tax Relief	5yrPVAF@10%	1yr DF@10	Amount (US$ million)
48	30%	14.4	3.791	0.909	**50**

48 x 5yrPVAF@10% x $(1.10)^{-1}$ = 48 x 3.791 x 0.909 = **50 million**

(iii) PV of annual interest savings on concessional loan

Amount (Km)	Interest rate (16% - 10%)	Interest Saved Annually US$ million
1316	6	79

	Interest Saved	5yrPVAF@10%	US$ Million
PV =	79	3.791	**299**

Interest saved annually = K1.316 million x 6% (16% - 10%) = $79 million
PV = 79 million x 5yrPVAF@10% = 79 M x 3.2791 = $299 million

PV of tax relief lost on annual interest savings on concessional loan

Interest Saved	Tax Rate	Tax Relief Lost Annually
78.96	30	24

Tax Relief Lost Annually	5yrPVAF@10%	1yr DF@10	PV (US$ Million)
24	3.791	0.909	**82**

(iv) PV of the rights issue costs

Amount to be Raised (Kmillion)	Net of Issue Costs of 2%	Gross Amount ($ million)	Rights Issue Costs ($ million)
1316	0.98	1343	**27**

Amount to be raised from rights issue is K1316 million (net of issue costs of 2%)
Gross amount to be raised is therefore (1316/0.98) = K1,343 million
Rights Issue costs = $1343 m – $1316 m = **$27 million**

(v) PV of after – tax loan issue costs

($ 480 million + 1,316 million) 1.5% x (1- 0.3) = $ 19 million

Loan # 1 (Kmillion)	Loan # 2 (Kmillion)	Loan Issue Cost (1.5%)	Net of Tax Benefit (1 - 0.3)	Amount (US$ million)
480	1316	1.5%	0.7	**19**

1(b).

<u>Merits of Syndicated loans</u>

- Large loan amounts can be arranged, than can be managed by a single bank
- Turnarounds can be faster with Lower transaction costs being realized by the borrower
- Multi – currency loans can be pooled in a package from several countries

<u>Demerits of Syndicated loans</u>

- The project syndicate may expose itself to currency risk
- Members of the syndicate might not be able to meet their funding obligations at some point of the project, due to unforeseen circumstances ie regulatory, takeovers, solvency
- Interest rates charged have sometimes been known to be higher than spreads available in bond markets.

1(c) <u>Strategies to minimize taxes and manage restrictions in remittances can include:</u>

- **Interest on loans** to the Batoka Project can be fixed at a high rate so as to recoup profits. However, interest on loans should normally be at arm's length and market based, otherwise tax authorities may disallow portions of them.
- **Management fees** may be charged for consultancy and technical assistance. However, ZRA charges withholding taxes on management fees.
- The project may be charged **Royalties** for use of patents and brands.
- **Transfer pricing** may be used to move profits through selling of capital goods and services, from holding companies.
- **Parallel loans** to other projects or state owned enterprises and vice versa.
- Through **Tax Incentives** granted by the Zambia Development Agency (ZDA). These are however, only available at inception for specific periods.

1(d).

<u>**Carbon Credits**</u>

- Carbon credits are part of the carbon emission trading schemes that have been developed under the Kyoto Protocol as strategies to mitigate global warming.
- The kyoto protocol is an agreement whose aim is to reduce emission of carbon dioxide and other greenhouse gases to levels that prevent interference with the climate.
- They assist in reducing the greenhouse effect by decreasing carbon emissions on an industrial scale.
- Countries that ratify the Kyoto Protocol are assigned maximum carbon emission levels and can participate in carbon trading.
- If one country has exceeded its quota of greenhouse gas emissions, another country that has not can be paid for use of its surplus capacity.

- Total annual emissions are capped and the market is allowed to assign a monetary value to any shortfall.
- For example if a company emits 20 million units of greenhouse gases and is only allowed a quota of 15 million units by its government, the company can either reduce its emissions to the quota or purchase carbon credits to offset the excess emissions.

SOLUTION TWO

Before implementing the proposal.

Cost of equity = 3% +1.2 × 5%= 9%

Cost of debt = 3% + 0.8% = 3.8%

Market value of debt (MVd)

(K5 × 1/1.038) + (K5 × 1/1.038^2) + (K105 × 1/1.038^3) = K103.33

Total value = K41,250,000 × 103.33/100 = **K42,623,625**.

Market value of equity (MVe)

The market value of debt is calculated using the free cash flow model as hinted in the question.

Assumption 1: the free cash flows to equity which are retained can be invested to yield the rate of return required by the shareholders. This is the estimate of how much the free cash flows to equity will need to grow by each year.

g = rb; r = 9% and b = 0.4, so g = 9% × 0.4 = 3.6%

MVe = $\frac{FCF\ X\ g}{Ke-g}$ = K2,400,000 x 1.0360/ (0.090 – 0.036) = **K46,044,444.**

(FCF = free cash flows)

MVd: MVd = K43: K46 = 48 : 52

WACC = 9% x 0.48 + 3.8% x 0.52 x 0.75 = 5.80%

After implementing the proposal

Assumption 2: Kaya 's asset beta is the weighted average of the average lodges beta and the hunting business beta.

Estimate of the asset beta for Kaya co

βa = 1.2 x 0.48 /(0.48 + 0.52 x 0.75) = 0.66

Asset beta for hunting business only;

0.66 = (asset beta (hunting business) x 0.55) + (0.3 x 0.45)

0.525 = asset beta x 0.55

0.95 = asset beta (hunting business)

Equity beta for Kaya – Hunting business only

MVe remains the same as given in the question.

MVe = **K46,044,444**

Kd = 3% + 0.6% = 3.6%

MVd = (K5 × 1/1.036) + (K5 × $1/1.036^2$) + (K105 × $1/1.036^3$) = 103.90

Total value = K16,500,000 x 103.90/100 = **K17,143,500.**

Equity beta calculation

0.95 = βe × (46,044/46,044 +17,143)

βe = 1.30

Hunting business cost of equity and WACC

Ke = 3% + 1.30 x 5% = 9.5%

WACC = 9.5% x (46,044/46,044 +17,143) + 3.6% (46,044/46,044 +17,143) x 0.75 = 8.91%.

Analysis

	Before implementation	After implementation
Cost of equity (Ke)	9.0%	9.5%
WACC	5.8%	8.9%

The figures show that there is an increase in both the cost of equity and the WACC, contrary to the expectations of the board of directors.

SOLUTION THREE

(a) Money laundering occurs when financial transactions are structured in such a way as to mask the true source of the money and the identity of the parties involved. In the case of MA investments, an individual who obtains money from corruption can send a third party to make a payment on their behalf and contract the company to construct a house for them. This is made possible by the fact that MA investments does not carry out any screening of its clients to ensure they know their clients better.

The house may therefore be built on land owned by the true owner of the money who would not be known to MA investments. This means MA investments would be dealing with clients it actually doesn't know and would easily facilitate money laundering unintentionally.

(b) The steps that can be taken assess the exposure risk:-

- Identify the money laundering risks that are relevant to the business.
- Carry out a detailed risk assessment.
- Design and implement controls to manage and reduce the identified risks.
- Monitor the effectiveness of these controls and make improvements where necessary.
- Maintain a detailed record of all actions taken and the reasons for taking such action.

(Candidates would be expected to expand briefly on the each of the above points in order to be given full credit for their answers).

(c) Measures that can be put in place to prevent the possibility of being unwittingly involved in money laundering activities;

- Customer due diligence: where the company puts in place measures to ensure that it carries out brief backgrounds checks on potential clients.
- Maintain full and up to date records: the company should ensure that all financial transactions are properly and systematically recorded. Monies received from each client must be recorded and receipted in the name of the client. Also the company must ensure that it has full and up to date information all its clients.
- Implement strong internal controls: Ensure that there are sufficient control mechanisms in place to prevent circumvention of the company regulations.

SOLUTION FOUR

(a) Growth by acquisition vs organic growth.

- Growth by acquisition is a quicker way of entering new markets than setting up a new start up using internal resources.
- An acquisition may also help reduce competition and result in higher profitability than would be the case under organic growth.
- An acquisition may bring about complementary benefits that would not be realizable otherwise.

- A significant premium must be paid in order to encourage existing shareholders to sell or to outbid rival bidders. This may reduce the return realizable on the cost of acquisition.

- Sometimes the acquired company requires some major restructuring/investment to bring its services or products to the required standard.

- Some acquisitions experience management disputes which may result in the departure of key staff thus negatively affecting the operations of the business.

(b) Defensive tactics
- **Golden Parachute** : where provision is made for large compensation packages to top management in case of a hostile takeover. This may be in the form of cash payments, bonus share options or a combination.
- **Poison pill:** where steps are taken to make the company unattractive to bidders. This can take many variant forms including offering current shareholders the right to purchase shares at a very low price.
- **Pacman defense:** where the target company mounts a counter bid for the attacker. It is an aggressive tactic and less of a defense and is effective when the attacker is public company with diverse shareholders.
- **Crown jewels:** where the target company sells its most valuable assets and thus making itself less attractive. This method is most effective where the bidder is mostly interested in the assets in question.

(c) Reason for failing to deliver wealth to bidder's shareholders
  - **Paying too much for the target company**: it is quite common for the bidding company to pay a high premium in order to encourage the shareholders to sell their shares. The premium paid may be higher than the benefits realized from the acquisition in the short to medium term.
  - **Lack of congruence**: combining two businesses can be a risk undertaking as a number of integration problems may rise. There may be differences in systems, management styles, culture and organization methods.
  - **Hidden problems**: problems with the target company which were hidden at the time of take over may emerge later and erase any gains that may have been realized from the acquisition.
  - **Management attitude:** some managers may feel that a take over is the most important ingredient for success and expect that future operations will run

smoothly. Any merger would fail if no effective leadership provided to ensure the realization of all anticipated synergies.

(d) The role of the IFM is to oversee the global financial systems, in particular to stabilize the international exchange rates, help countries achieve balance of payment and facilitate development through influencing economic policies. When called upon, the IMF offers financial loans to countries facing severe financial and economic difficulties. These loans are normally given in return for the recipient country undertaking specific economic measures or reforms.

The IFM normally requires countries to reduce spending and increase taxes and also implement austerity measures to ensure sustainable reforms. These measures normally would help the country control inflationary pressures on the economy and reduce on its trade deficit and achieve the required balance of payments position. The conditions imposed by the IMF on countries that obtain loans tend to impact negatively on the standard of living of the citizenry in the short to medium term.

SOLUTION FIVE

Part a

FORWARD CONTRACTS

A forward contract is where one party agrees to buy „something" from another party at a specified date in the future. The terms of the agreement, such as quantity being bought or sold, or the time frame, can be tailor made to meet the requirements of the buyer or seller and therefore the contracts are usually OTC. This provides certainty in the rate to use at a later date, but one cannot take advantage of favorable movements due to the binding nature of the contract. Also, being contracts they must be fulfilled as agreed.

FUTURES CONTRACTS

Futures contracts are essentially the same as forward contract in the sense that they are a contract between a buyer and a seller to exchange something at some point in the future.
However, futures tend to be for foreign currency, interest rates or shares and can be traded on recognised exchanges such as the London International Financial Futures and Options Exchange (LIFFE). As they are tradable, futures need to be more standardised than OTC derivatives and will therefore be bought/sold in set quantities and will have a fixed execution date, usually at the end of March, June, September or December.
As the future is tradable, it makes it more flexible than the forward market, as the future can be bought or sold at any point.

CURRENCY OPTIONS

An Option is the right but not the obligation to buy or sell the underlying asset at a predetermined price ("exercise price") on or before a specified date. The buyer of the option can exercise this right or let it lapse ("walk away"). Therefore, with an option, there is a sure way to mitigate against risk, however, options tend to be very expensive to deal in and also are available in standardized quantities and currencies.

Part b

Forward contract

Due to pay $250,000 in six months, rate is K14.550. Total Kwacha K3,637,500 ($250,000 x K14.550)

Money Market

Amount to put in $ deposit account is $243,902 ($250,000/1.025%) for six months;
Kwacha amount of $ deposit amount is K3,536,579 ($243,902 x K14.50)
The amount in Kwacha is what would be borrowed.
Interest payable 12.5% for six months
Total amount plus interest would be K3,536,579 x 1.125 = K3,978,651

Part c

Transaction risk impacts on A"s profitability through the income statement. It arises from the ordinary transactions of the company including purchases to suppliers as the case is and sales to customers if any. Therefore, A Limited should have a deliberate strategy to managing currency risk. For example, where amounts are in the same currency and time period, these could be netted off to reduce the value at risk. From the financial impact of the two methods, the use of forward contracts seems to be the more beneficial; however, the counter party (Bank) is likely to charge a commission for such an arrangement. I t would be important to consider the fees before the final decision.

Finally, the use of derivative instruments could be considered as a matter of policy in the management of currency risk with the criteria of suitability, acceptability and financial benefit outlined. In this case, with the available information, the use of forward contracts should be considered.

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 19 MARCH 2021

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE</u> (COMPULSORY)

The Office of the Auditor-General (OAG) in Zambia is divided into two divisions: the Corporate Services Division and the Audit & Consultancy Division. The Audit & Consultancy Division is operating at approximately 70% of the approved staff establishment due to restricted budgetary provision. Some Members of parliament (MPs) raised points of order over the Office of the Auditor General's (OAG) alleged waste of resources and they doubt whether auditing of government and public sector entities has a positive impact on trust in society.

The Office of the Auditor General's (OAG) communication budget has been cut by 90% to save resources and the remaining 10% of the budget is only enough to cater for the submission of an audit report to the President and the National Assembly by the Auditor – General (AG) on the accounts audited in respect of the preceding financial year.

The Office of the Auditor General (OAG) is a member of a global association, the International Organisation of Supreme Audit Institutions (INTOSAI). The Office of the Auditor general (OAG) develops its work programs using experienced staff in both divisions. As a cost saving measure, wide consultations are only made within the Office of the Auditor General (OAG) before the work programs are finalised.

You are a Director in the Office of the Auditor General (OAG) responsible for accounting and internal audit in the Corporate Services Division. As a temporal measure to address the failure to fill key positions in the Audit & Consultancy Division, the Auditor General (AG) recently gave you additional responsibility to be in charge of the teams assigned to work on two engagements involving forensic audit and financial statement audit.

The President of the Republic of Zambia has requested the Office of the Auditor General (OAG) to carry out a forensic audit to investigate alleged corruption in one of the Provinces. This is to determine the extent of the financial damage to the Provinces' resources. It follows accusations in the media of widespread corruption in the management of public resources, particularly in the award of contracts for the supply of goods and services for a Project worth K4 million was meant to restore the forests that have been damaged. This is a non-commercial Project for the empowerment of local communities in rural areas of the Province. However, there is a requirement to strictly follow the provisions of the Zambia Public Procurement Act (2018).

It is alleged that the Provincial Controlling Officer and other Senior Provincial Administration Officers awarded contracts to private companies in which their family members have financial interests. Payments were made to these companies but there has been no corresponding supply of goods and services. Since the allegations involve Senior Management of the Province, the Auditor General (AG) has stated that this creates a danger that these individuals will seek to destroy information and documents in order to cover their tracks and avoid detection. Therefore the Auditor General (AG) has directed that swift action must be taken to secure and safeguard financial and other information.

The Province uses both manual and automated systems and has a reliable Internal Audit function. It has a list of registered suppliers and all contracts awarded are kept on a secure database. Goods Received Notes (GRNs) are raised for all goods delivered and services rendered.

You were employed by the Province in question as a Provincial Controlling Officer, until February 2019 when you left and joined the Office of the Auditor General (OAG). The Auditor General (AG) has suggested that due to your familiarity with the Provincial Administration you should be in charge of this engagement.

The public has welcomed the audit and is looking forward to the Office of the Auditor General's (OAG) report being passed on to a law enforcement agency for further investigation or prosecution.

The allegations have resulted in the suspension of further funding for the Project. The public expects the forensic audit to be concluded in the shortest possible time so that funding can be resumed. Various stakeholders are happy that the revised Public Financial Management Act (2018) had outlined clear provisions for the management of public resources and the culprits will be dealt with.

Field work for the financial statement audit of one of the new rural districts has been completed and due to failure to produce receipt books, the financial audit team is considering how this might affect the audit opinion. The District Management informed the financial audit team that there was no particular person assigned to be a custodian of used receipt books.
You have concluded that the possible effects on the financial statements of undetected misstatements due to failure to provide receipt books could be both material and pervasive.

Required:

(a) Explain how auditing of government and public sector entities impact positively on trust in society. (3 marks)

(b) Using the information in the scenario, evaluate whether the Office of the Auditor General (OAG) is demonstrating ongoing relevance to citizens and other stakeholders. (5 marks)

(c) Identify and explain four (4) ethical and professional issues that may affect independence in the forensic audit of the Province. (6 marks)

(d) Suggest appropriate safeguards for each ethical and professional issue identified in (c) above. (4 marks)

(e) Explain the actions you will take to secure and safeguard financial and other information in the forensic audit requested by the President of the Republic of Zambia. (3 marks)

(f) Explain the key stages in a forensic audit assignment. (7 marks)

(g) Recommend six (6) procedures that could be used to gather evidence in the valuation of the alleged corruption. (6 marks)

(h) Suggest a suitable audit opinion regarding the financial statements for the new district, clearly explaining the impact on the auditor's report. (6 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

You are an Audit Manager in the Office of the Auditor General (OAG) in Zambia. You are responsible for training all audit staff and advising the Auditor General (AG) on various professional and technical issues.

At the beginning of the year 2020, the Ministry of Finance released K2 million to enable the Office of the Auditor General (OAG) recruit eighty (80) auditors to fill the vacancies left by staff mainly due to retirement and death. The recruitment has been completed and as per newly developed recruitment policy all new employees are required to be inducted into the various operations of the OAG. The AG through the Director-in-Charge of audits has requested you to prepare notes which will be incorporated in an induction program.

Given that some of the new employees are not accountants by profession, the notes should clearly explain the following:

1. Types of public sector audit

2. The functions and responsibilities of the Auditor-General according to the Article 249 of the Constitution of Zambia.

The Office of the Auditor General (OAG) has planned to perform a forensic investigation in one of the provinces regarding misappropriation of assets. The Controlling Officer is on forced leave and the Auditor General (AG) believes this provides a conducive environment for conducting an effective forensic investigation. However, a Senior Audit Manager who was given the responsibility to lead the forensic investigation team has declared interest. He discovered that the Controlling Officer in question is married to one of the cousins to his wife. The AG wants to replace him with Perry Ngosa, who is a Senior Audit Manager in the OAG. The AG is not sure of Ngosa's competence in forensic investigations and has asked you to evaluate his suitability for the task.

Perry Ngosa has worked for OAG for fifteen (15) years and has mainly been involved in financial statement audits for state owned enterprises. He holds a bachelor's degree in accountancy and has just started pursuing the CA Zambia qualification.

Required:

(a) Explain three (3) main types of public sector audit. (6 marks)

(b) Discuss the functions and responsibilities of the Auditor-General according to the Article 249 of the Constitution of Zambia. (4 marks)

(c) Evaluate Perry Ngosa's suitability for the forensic investigation. (10 marks)

[Total: 20 Marks]

QUESTION THREE

A developing country, known as Alpha last year established a Supreme Audit Institution (SAI). You were employed recently as Director-in-Charge of Audits and Consultancy. The Audits and Consultancy department is operating with the full complement of staff and there are no vacancies in the department. You have noted with great disappointment that some of the assignments are performed by hired consultants. The Auditor General (AG) is required to authorize all appointments of consultants.

The Director of Finance in the Supreme Audit Institution (SAI) has requested the Auditor General (AG) to authorize the engagement of external consultants, G&K Consulting, to perform actuarial valuations regarding the pension scheme for all members of staff in the SAI so that the financial statements for the year ended 31 December 2019 can be finalized. G&K Consulting is a company owned by the Minister of Finance's daughter. All tender procedures were followed and Minister of Finance who sits on the Management Procurement Committee for the Supreme Audit Institution (SAI) declared interest and was not present when the Management Procurement Committee awarded tender to G&K Consulting. The Auditor General (AG) is not conversant with actuarial valuations and has requested you to advise him on whether he should authorize the engagement of G&K Consulting.

The Audit Manager-in-Charge of the Information Technology (IT) audit in the Ministry of Commerce, Trade and Industry is currently evaluating controls. He has asked for further guidance in the following areas:

1. The Ministry has properly used the funds allocated to it by establishing a modern computer room. This is located on the spacious ground floor and is equipped with modern hardware and software. The servers are held offsite at a secret third party premises.
2. The Ministry has introduced standard processing procedures and periodic running of test data.
3. Any modifications to IT systems are only authorized by the Controlling Officer.
4. A third party has been engaged to develop a system that could limit further losses and rectify current losses in the event of system failure.
5. The internal auditors investigate and follow-up all errors or exception reporting.
6. Senior Management in the Ministry of Commerce, Trade and Industry are still using the manual systems.

Required:

(a) Explain the importance of the SAI outsourcing some work. (4 marks)

(b) Advise the Auditor-General whether the audit work on actuarial valuations should be outsourced. (7 marks)

(c) Evaluate the Information Technology (IT) general controls in the Ministry of Commerce, Trade and Industry. (9 marks)

[Total: 20 Marks]

QUESTION FOUR

You are the Audit Senior in charge of the performance audit of one of the parastatal bodies in the Republic of Zambia. The Industrial Development Corporation (IDC) as an active shareholder has devised performance monitoring mechanisms. The most important mechanism being the introduction and signing of annual performance contracts with Boards of enterprises under its charge and the Chief Executive Officers of state-owned-enterprises. The IDC was created in early 2014 and is an investment company owned by the Ministry of Finance of Zambia and was established to lead the development of Zambia's domestic industrial capacity and job creation. The draft annual performance report for the parastatal includes the following information:

1. **Return on capital employed (ROCE) and dividend pay-out:**
   During the year under review, the Industrial Development Committee (IDC) board introduced a dividend policy meant to improve dividend pay-out, predictability and consistency. The Industrial Development Committee (IDC) also set a target Return on Capital Employed (ROCE) for all parastatals. The figures provided by management in the draft annual performance report indicate that the parastatal was able to exceed the targets set by the IDC and all the board members qualified for performance bonuses.

2. **Procurement:**
   The parastatal spent K5 million to procure IT hardware and software. The expenditure was 20% above budget and the variation was approved by the board and all procurement provisions of the Zambia Public Procurement Act of 2008 were followed. Service Level Agreements were signed with the provider of the IT hardware and software as demanded by the board. The IT hardware and software have met all the performance criteria defined by the IT technical committee and the users are satisfied.

3. **Ratio of Staff costs to revenue:**
   The ratio of staff costs to revenue has decreased from 70% to 40%. Management attributed this to measures undertaken to attract and retain qualified multi-skilled staff within the company to improve operational efficiency, and automate most processes.

   The Industrial Development Corporation (IDC) is pleased with the performance of the board which has been in office for one year. In the previous two years the parastatal experienced four dissolutions and three re-appointments of Board members by the appointing authority. The IDC has requested the Office of the Auditor General (OAG) to assist the parastatal by making constructive recommendations given that there are a number of areas which need professional input.

Required:

(a) Explain the main objective of performance auditing according to ISSAI 300. (5 marks)

(b) Describe stating the performance principle involved the appropriate audit procedures to be used in auditing the performance information of the parastatal in the scenario. (12 marks)

(c) Suggest typical features of constructive recommendations. (3 marks)

[Total: 20 Marks]

QUESTION FIVE

You are the audit supervisor of a team from the Office of the Auditor General (OAG) and you have been assigned to provide an opinion on the annual accounts of The National Road Investment Fund.

The following information is available for your review:

The National Road Investment Fund was established under the National Road Investment Agency Act No. 4 of 2002. It was formulated through a transport policy which envisioned an enhanced road fund management which would ultimately translate into a good road transport network around the country.

The National Road Investment Fund is responsible for mobilization, administration and management of all financial resources in the road sector and is responsible for the:

(i) Administration and management of the National Road Investment Fund (NRIF)

(ii) Preparation and publication of annual audited accounts of the Fund and

(iii) The allocation of resources for the construction, maintenance and rehabilitation of roads.

The National Road Investment Fund has the following functions:

Fund Management Unit
The Fund Management Unit has the responsibility of tracking funds from collection points, ring fence the Road Funds, control usage and disbursement to the intended contracted works and services. These funds come from two main sources of income which include toll fees and external resources from cooperating partners. There is a risk that these funds may be channeled to other projects other than those intended.

The Monitoring and Evaluation Unit
The Monitoring and Evaluation Unit is a technical wing of the National Road Investment Fund Agency. The Department's main role is to ascertain and promote Value for Money on road projects and related activities in the entire road sector. The Department reviews and interprets technical issues to facilitate board decisions and enables the Fund provide necessary checks and balances to implementing institutions. There is a risk that you may not fully understand the technical aspects of this unit.

The Corporate Support Unit

The Corporate Support Unit deals with General Administration, Human Resource Management and Procurement. The Unit is also responsible for overseeing the Information & Communication Technology activities in the entire organization. Further, the Department ensures that there is value for money by procuring goods and services in an economic, efficient and transparent manner.

The complexity of the ICT systems in fund management may pose a challenge for auditors to comprehend.

The Internal Audit Unit

The Internal Audit Department has the responsibility of providing the Board and management with an independent assessment of the effectiveness and efficiency of Fund's policies, processes and internal controls.

There may be need to review the work of internal audit in order to assess the possibility of using their wok.

Required:

(a) Explain three (3) benefits of planning the audit of National Road Investment Fund in accordance with ISSAI 1300: *Planning an audit of financial statements*. (3 marks)

(b) Explain fraud risk assessment procedures to be conducted in accordance with ISSAI 1240 *The auditor's responsibilities relating to fraud in an audit of financial statements.* (3 marks)

(c) In accordance with ISSAI 1620: *Using the work of an expert*, distinguish between auditor's expert and management expert. (4 marks)

(d) State the procedures an external auditor should conduct when planning to use the work of internal audit. (3 marks)

(e) Discuss the elements of Public sector auditing in the context of National Road Investment Fund. (7 marks)

[Total: 20 Marks]

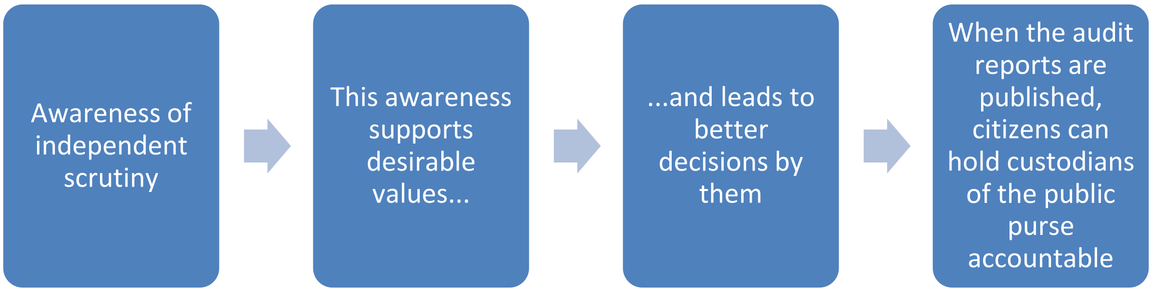
END OF PAPER

CA 3.7 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) **Positive impact on trust in society**

ISSAI 12 *The Value and Benefits of Supreme Audit Institutions – making a difference in the lives of citizens* gives detailed guidance in this area. The preamble to the standard states that auditing of government and public sector entities have a positive impact on trust in society. This is because auditing (or the prospect of being audited) focuses the minds of 'custodians of the public purse'. It makes them more aware of how well they are using public resources, because they know that their activities may be scrutinized by an independent body.



In this way, SAIs promotes accountability and transparency, and efficiency and effectiveness in public administration. This has a positive impact on trust in society.

(b) **Evaluation of whether the OAG is demonstrating ongoing relevance to citizens and other stakeholders**

ISSAI 12 gives guidance on how Supreme Audit Institutions (SAIs) can demonstrate ongoing relevance to citizens and other stakeholders. To be a credible voice for beneficial change and therefore demonstrate ongoing relevance to citizens and other stakeholders, SAIs should have a good understanding of developments in the wider public sector, and should have a meaningful dialogue with stakeholders about how the work of the SAI can support improvements in the public sector. SAIs should communicate in a manner that increases stakeholders' knowledge of the SAIs role as an independent auditor of the public sector.

Communication should contribute to both public and political awareness of the need for transparency and accountability in the public sector.

The Office of the Auditor-General (OAG) in Zambia is currently understaffed and its communication budget has been cut significantly by 90%. In addition, as a cost saving measure, wide consultations are only made within the OAG before the work programmes are finalised. With inadequate resources and lack of external consultations, it is very difficult for the OAG to meaningfully engage the stakeholders and respond to key issues affecting society. Hence, the OAG, at moment, may not be demonstrating ongoing relevance to citizens and other stakeholders.

(c) & (d) **Ethical threats to independence in the forensic audit and safeguards**

Ethical threats	Explanations	Safeguards
(1) The President of the Republic of Zambia has requested the OAG to carry out a forensic audit.	The President may exercise undue influence both politically and economically. This gives rise to an intimidation threat as the AG and the audit team may feel under pressure to 'impress' the President without necessarily performing a thorough forensic audit. The forensic audit team's independence may be compromised.	The Public Audit Act 2016 provides for the President of the Republic of Zambia to request the AG to conduct any specific audit investigation as he may consider desirable in the public interest. As a safeguard, however, the AG should explain to the President that the OAG is required to perform the audit in accordance with auditing and quality control standards. Hence, all relevant issues and questions will have to be investigated thoroughly in order to obtain sufficient appropriate evidence to support any conclusions.
(2) The request for the forensic audit follows accusations in the media of widespread corruption in the management of public resources.	This also gives rise to an intimidation threat as the media may have formed their own conclusions and the forensic audit team may be under enormous pressure to 'rubber stamp' the same conclusions. This may impair independence and objectivity.	The AG must request the President to ensure that the terms of reference highlight the importance of independence and objectivity. These must be made public so that the media is seriously warned against trying to influence the outcome of the forensic audit.
(3) Requirement to strictly follow the provisions of the Zambia Public Procurement Act (2018).	In order to try and keep their jobs, the Provincial Administration may manipulate the documentation so that they	The AG must ensure the audit team has the skills and mindset that suits the forensic audit. If specialised expertise is required that is

	appear to be in compliance with requirements of the Zambia Public Procurement Act (2018).The forensic audit team may not have the competence to uncover the manipulations in the documentation and this may result in wrong conclusions.	not available with the OAG, the AG should consider using external experts to ensure appropriate conclusions are reached. The persons on the forensic audit team must have the necessary knowledge and skills to do the job successfully. The AG must also ensure that collectively the forensic audit team possesses the expertise required for the engagement.
(4) It is alleged that the Provincial Controlling Officer and other Senior Provincial Administration Officers had awarded contracts to private companies in which their family members had financial interests.	This raises serious concerns regarding the integrity of Senior Management of the Province. There could be an advocacy threat in that the forensic audit team could be bribed by Senior Management so that they issue an audit report, which supports Senior Management's position.	The AG must ensure that only suitably experienced persons with appropriate work practices and professional behaviour are used on this engagement. The forensic audit team must go beyond professional scepticism expected in other engagements.
(5) A former Provincial Controlling Officer of the Province is in charge of the forensic audit.	This could represent a self-review threat as the former Provincial Controlling Officer could have been involved in the award of some of the contracts under forensic audit. There are also serious self-interest and familiarity threats which may impair objectivity. The former Provincial Controlling Officer may be too sympathetic towards Senior Management and may be unable to exercise the appropriate level of professional scepticism for such a sensitive engagement. The duty of confidentiality may not be observed as the former Provincial Controlling Officer may directly or indirectly pass sensitive information to Senior Management.	The former Provincial Officer must not be involved in the forensic audit of the Province. The AG must appoint another person who is able to act in an impartial and unbiased manner, and be free from circumstances that may compromise (or may be seen as compromising) professional judgement. In addition, the AG must ensure each member of the forensic audit team signs a suitable confidentiality declaration form. This must cover among other things, maintenance of confidentiality within the family and social environment, including social media.
(6) The public has welcomed the audit and is looking forward to the OAG's report	This gives rise to an intimidation threat as the forensic audit team may feel	The public expectation must be managed through publicising the terms of

being passed on to a law enforcement agency for further investigation or prosecution.	under pressure to satisfy public expectations. This will impair independence and objectivity.	reference for the engagement. The forensic audit team must be allowed to perform the engagement professionally.
(7) The public expects the forensic audit to be concluded in the shortest possible time so that funding can be resumed.	This also gives rise to an intimidation threat as the audit team may feel under pressure not to perform a thorough audit in order to complete the engagement in the shortest possible time.	The AG must tell the public that the length of time the forensic audit will take cannot be guaranteed. It is likely that it may expand into other areas and include extensive interview of staff members and third parties. This position should have the backing of the President.

(e) **Actions to secure and safeguard financial and other information**

The actions may include:

(1) Obtaining copies of backups of electronic data to avoid destruction of data. These may be physical media or may be information stored in remote servers using 'cloud computing'.

(2) An urgent visit to physical premises must be scheduled with little or no notice to review the offices and files of relevant documentation and protect physical documentation from destruction.

(3) If email correspondence is likely to be relevant, a specialist may be needed swiftly to obtain and copy relevant network files and those on PCs and laptops.

(4) Physical access to computers to facilitate imaging of hard disks. By using this technique information may be recovered that a perpetrator had sought to destroy on becoming aware of an impending audit.

(f) **Key stages in a typical forensic audit assignment**

The key stages in a typical forensic audit assignment are as follows:

(1) Defining scope and objective – prior to commencing a forensic audit or investigation the forensic auditor needs to determine its scope and objectives. Important questions which should be resolved at this stage include, "Whether recommendations of remedial action are required?", "What form and content of report is required?" etc.

(2) Gaining an understanding of the organisation and matters to be investigated – the forensic auditor needs to understand the organisation subject to the investigation prior to commencing work. In addition, the forensic auditor needs to develop a good understanding of the nature of the matter under investigation.

(3) Securing and safeguarding financial and other information – it is important that forensic auditors are able to analyse as much relevant information as possible. For any analysis to be effective, the data should not be compromised.

(4) Inspecting financial information and documents – forensic auditors need to be capable of identifying 'red flags' in documents that may suggest fraud or other illegal acts.

(5) Interviewing organisation staff and third parties – the purpose of the interviews is to obtain information (information – seeking interviews) and, in some cases, a confession (admission – seeking interviews).

(6) Drawing conclusions – it is important that the conclusions drawn are unbiased, objective and supported by sufficient evidence which could be used in further investigation or prosecution.

(7) Producing the report – the exact form and structure of the report for a forensic audit or investigation will depend on the nature of the assignment, and will vary. If the audit report is to be made public, the forensic auditor must ensure that its conclusions are clear, easily understood and fully supported by audit evidence.

(g) **Recommend procedures**

The recommended procedures that could be used to gather evidence in the valuation of the alleged corruption include:

(1) Obtain a list of approved suppliers and ask the Provincial Controlling Officer and all Senior Provincial Administration Officers to indicate themselves the suppliers owned by family members.

(2) Interview the staff responsible for awarding contracts and the internal auditors whether they are aware of suppliers owned by family members of the Provincial Controlling Officer or any of the Senior Provincial Administration Officers.

(3) Summarise the list of suppliers owned by family members and agree the list to the annual returns, financial statement disclosures on related parties and where necessary confirmations with suppliers themselves.

(4) Use data analytics (CAATs) to identify contracts for companies owned by family members and the values involved. The secure Provincial database will be useful here.

(5) Vouch payments for the identified contracts in the cashbook and trace to ledger accounts and to bank statements.

(6) Request for Goods Received Notes (GRNs) for payments for identified contracts.

(7) Evaluate the strength of evidence obtained and summarise the findings and value the corruption (fraud) that may have taken place.

(g) **Suitable audit opinion and impact on the auditor's report**

Types of audit opinions

An audit opinion may unmodified or modified.

ISSAI 1700 *Forming an opinion and reporting on financial statements* which consists of ISA 700 and a Practice Note, provides guidance on the form and content of the auditor's report on an audit on the financial statements of an entity. An unmodified opinion should be expressed when the auditor concludes that the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework.

ISSAI 1705 *Modifications to the opinion in the independent auditor's report*, which consists of ISA 705 and a Practice Note, sets out the three different types of modified opinions – Qualified opinion, Adverse opinion and Disclaimer of opinion.

Suitable audit opinion

In the case of the new district, an unmodified opinion will not be suitable because of the lack of receipt books. The following table summarises the different types of modified opinion that can arise:

	Auditor's judgement about the pervasiveness of the effects or possible effects on the financial statements	
Nature of circumstances	Material but not pervasive	Material and pervasive
Financial statements are materially misstated	QUALIFIED OPINION	ADVERSE OPINION
Auditor unable to obtain sufficient appropriate audit evidence	QUALIFIED OPINION	DISCLAIMER OF OPINION

A disclaimer of opinion will be suitable since the conclusion is that the possible effects on the financial statements of undetected misstatements due to failure to provide receipt books could be both material and pervasive.

Impact on Auditor's report

The audit report will contain a paragraph headed 'Disclaimer of opinion', stating that because of the matter(s) described in the Basis for Disclaimer of Opinion paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

A paragraph headed 'Basis for Disclaimer of Opinion' will be included immediately below the Disclaimer of Opinion paragraph. It will describe the matters giving rise to the qualification, and will quantify their financial effects.

SOLUTION TWO

(a) **Types of public sector audit**

The three (3) main types of audit in the public sector are:

- Performance audits – the purpose of a performance audit, (which may also be called a value for money audit) is to assess whether an entity or a programme is operating in accordance with the principles of the 3Es – economy, efficiency and effectiveness – and whether there is scope for improvement. Actual performance is examined against suitable criteria, and causes of differences are analysed.
- Financial audits – these are similar to financial audits in the private sector. Their purpose is to determine whether the financial information provided by an entity is presented in accordance with the applicable reporting framework for that entity. The auditor expresses an opinion as to whether the financial information is free from material misstatement due to error or fraud.
- Compliance audits – the purpose of a compliance audit is to assess whether activities, financial transactions and information for an audited public sector entity are, in all material respects, in accordance with the authorities that govern the entity. "Authorities" may be rules, laws and regulations, established policy, agreed codes of conduct, budgetary decisions, and so on.

(b) Article 249 of the Constitution of Zambia states that:

> The Auditor-General shall:
> (i) Audit the accounts of state organs, state institutions, provincial administration, provincial assemblies and local authorities, and institutions financed from public funds
> (ii) Conduct financial and value for money audits, including forensic audits
> (iii) In respect of a project that involves the use of public funds, ascertain that the public money has been applied for the purpose for which it was given, spent in conformity with the authority that governs it, and was spent economically, efficiently and effectively

(iv) Recommend to the Director of Public Prosecutions or a law enforcement agency any matter (within the competence of the Auditor-General) for which prosecution may be required

(c) **Evaluation of Perry Ngosa's suitability for forensic investigation**

Forensic investigations are much more demanding than financial statement audits. Forensic Auditors may have similar educational backgrounds to other auditors, but their mindset and working practices may be very different. For example, for the forensic auditor each engagement has individual characteristics and there is no previous year working papers to assist in planning the work to be undertaken.

Perry Ngosa is involved in financial statement audit where the approach is basically routine and audit methodology adequately supported by International Standards on Auditing (ISAs). In addition, matters of forensic investigation often involve deception or other dishonest practices, often perpetrated by staff members or management. Therefore, the approach of the forensic auditor must go beyond professional scepticsm expected of any auditor and forensic auditors may need to be suspicious of the truth of statements made to them by an organisation's staff.

Due to the differentiating features individuals conducting forensic investigations need a skillset that suits the more investigative role of the forensic auditor. Perry Ngosa may not even be used to working in a more adversarial environment and therefore may fail to perform, especially that he is expected to lead the forensic investigation team.

Perry Ngosa, however, possesses the following strengths which suit forensic investigations:

(1) He is reserved – Forensic investigations require auditors who have the ability to treat sensitive and confidential information appropriately.

(2) He possesses an analytical mind – Forensic investigations require auditors who have the capacity for inquiry, abstract logical thought, and critical analysis .

Perry Ngosa may not be suitable for the leadership role. However, he could fit in lower roles while another experienced person is appointed to lead the forensic investigation team. This will provide him with an opportunity to learn other professional skills requirement for forensic investigations.

SOLUTION THREE

(a) **Importance of the SAI outsourcing some work**

The Lima Declaration stresses the need for SAI staff to have the competence and ethical standards needed to do their job effectively. It is highly unlikely that a Supreme Audit Institution (SAI) can have all the competences required in all tasks. It is recommended international best that where a SAI does not have the necessary skills or expertise for a particular task, it should make use of external experts as necessary. This will ensure the assignment is performed competently.

The SAI should, however, put in place effective controls to ensure any outsourced work is performed to the required standards.

(b) **Advise on outsourcing actuarial valuations**

Actuarial valuations are complex and it is highly unlikely that the SAIs finance department could have an individual with the knowledge and experience to competently handle this task. Most pension schemes are grossly underfunded due to wrong valuations. This creates huge problems for the future and must be avoided. It is therefore important Audit General authorizes the engagement of G&K Consulting.

However, given G&K Consulting is connected to the Minister of Finance, it will also be important to seek legal advice and all documentation for the transaction is in order. ISSAI 20 *Transparency and accountability* sets out 9 principles for SAIs about their need to be transparent and accountable. One of the principle states that:

"A SAI should ensure that the principles of transparency and accountability are not compromised when it outsources some of its work to an external entity".

This means outsourced work should be subject to ethical policies (especially conflicts of interest) and there should be policies in place for ensuring integrity and independence of outsourced work.

(c) **Evaluation of the Information Technology (IT) general controls in the Ministry of Commerce, Trade and Industry**

The details in the scenario gives both application controls and general controls. The requirement is to evaluate general controls and not application controls.

(1) Physical security – The Ministry's modern computer room is located on ground floor. Ground floors are prone to flooding and therefore the Ministry must relocate the modern computer room to a higher floor to protect the IT systems.

(2) Program modification – Any modification to IT systems are only authorized by the Controlling Officer. The Controlling Officer may not have the required technical know-how to competently execute this task. The Controlling Officer could responsible for the aspects while the technical aspects must be handle by a senior official with appropriate credentials.

(3) Disaster recovery – A third party has been engaged to develop a system that could limit further losses and rectify current losses in the event of system failure. This means the Ministry currently has no disaster recovery plan. Back-ups should be part of the routine day-to-day procedures for all IT systems as the Ministry awaits a more elaborate system being developed the third party. Management must also put pressure on the third party to complete the task.

(4) Management awareness – Senior Management in the Ministry of Commerce, Trade and Industry are still using the manual systems. This simply means cybercrimes may not be noticed by management. In addition, the Ministry may not be taking advantage of the benefits associated with computerization e.g. improved efficiency, accuracy etc.

SOLUTION FOUR

(a) Objective of performance audit according to ISSAI 300

According to ISSAI 300, performance audit is an independent, objective and reliable and reliable examination of whether government undertaking, systems, operations, programs, and activities relevant those charged with governance.

(b) Procurement

This addresses the performance principle of economy. Management may want to show the huge expenditure was justified. To verify the expenditure of k5 million and adherence to procurement provisions and performance criteria, the auditors should obtain the following copies;

>Approved budget and variation by the board

>The Zambia public procurement Act of 2008

>Relevant minutes of the board, management and procurement committee

>Supporting invoices, payment vouchers and other supporting documents

>Serviced Level Agreements (SLAs) and compliance reports

>Performance criteria and related compliance reports

It is possible that the expenditure could be understated and therefore the any repair and maintenance expenditure will need to be scrutinized for any possible misclassified. There will be need to interview the IT technical committee and the users to confirm their satisfaction.

(c) Ratio of staff costs to revenue

This addresses the performance principle of efficiency. The auditors must obtain the audited financial information for both years and confirm the accuracy of the decrease from 70% to 40% through recalculation. There will be need to agree the total figures to audited payroll details. The auditors must interview the Human Resource Manager and the Production Manager to confirm the assertions made about measures undertaken to attract and retain qualified multi-skilled staff within the company to improve operational efficiency, and automate most processes. It will also obtain advisable to obtain management representation on the assertions made.

(d) Typical features of constructive recommendations

In order to be constructive, recommendations will typically;

>Be directed at resolving the causes of weaknesses or problem identified

>Be practical and add value

>Be well-founded and flow logically from the findings and conclusions

>Be neither too general nor too detailed. Recommendations that are general will typically risk not adding value, while recommendations that are too detailed would restrict the freedom of the audited entity

>Be possible for the audited entity to implement without the need for additional resources

>Clearly state the actions recommended and who is responsible for taking the actions

>Be addressed to the entity or entities with the responsibility and competence for implementing them.

SOLUTION FIVE

SOLUTION 4

(i) Benefits of planning an audit

Audit planning is not a simple process. It involves consideration of client industry and regulatory factors, client operations and administration, availability and assignment of firm resources including engagement timing. The hard work of proper planning may enable more efficient audit execution. The other factors are as follows:

It also provides auditors with important risk management techniques while complying with all applicable professional standards. This helps reduce professional liability risk.

Team composition

Assignment of the engagement team and scheduling of resources may seem like simple logistical issues. Nevertheless, the level of experience on the team, use of experts, and scheduling of who will review and when are all variables that can significantly alter the engagement approach and affect its success. Assigning complex or difficult areas of an audit to the appropriate level of expertise, depth of experience, or extent of review is an important step in reducing the likelihood of an error.

(ii) Fraud risk assessment procedure

- Inquiries with management and those charged with governance to determine whether they have knowledge of any actual, suspected or alleged fraud affecting the entity. Inquiries could also be made with the internal audit function.
- Consideration of fraud risk factors that are present
- Consideration of the results of analytical procedures that raise suspicions of potential fraud.

(iii) Difference between Auditor's expert and Management expert

- Auditor's expert is an individual or organization possessing expertise in a field other than accounting **or** auditing**,** whose work in that field is used by the auditor to assist the auditor **i**n obtaining sufficient appropriate audit evidence.
- An individual or organization possessing expertise in a field other than accounting or auditing, whose work in that field is used by the entity to assist the entity in preparing the financial statements.

2 marks for each definition up to a maximum of 4 marks

(iv) Planning to use the work of internal audit

- The external auditor may be able to use the work of the internal audit function in obtaining audit evidence in a constructive and complementary manner depending on

- The level of competency of the internal audit function.
- Whether the internal audit function's organizational status and relevant policies and procedures adequately support the objectivity of the internal auditors
- Whether the function applies a systematic and disciplined approach, including quality control.

(v) Principles of Public sector auditing

- A Ethics and independence

Auditors should comply with the relevant ethical requirements and be independent Ethical principles should be embodied in an auditor's professional behavior. The SAIs should have policies addressing ethical requirements and emphasizing the need for compliance by each auditor. Auditors should remain independent so that their reports will be impartial and be seen as such by the intended users.

- Professional judgement, due care and skepticism

Auditors should maintain appropriate professional behavior by applying professional skepticism, professional judgment and due care throughout the audit The auditor's attitude should be characterized by professional skepticism and professional judgement, which are to be applied when forming decisions about the appropriate course of action. Auditors should exercise due care to ensure that their professional behavior is appropriate.

Professional skepticism means maintaining professional distance and an alert and questioning attitude when assessing the sufficiency and appropriateness of evidence obtained throughout the audit

- Quality control

Auditors should perform the audit in accordance with professional standards on quality control An SAI's quality control policies and procedures should comply with professional standards, the aim being ensure that audits are conducted at a consistently high level.

- Audit team management and skills

Auditors should possess or have access to the necessary skills the individuals in the audit team should collectively possess the knowledge, skills and expertise necessary to successfully complete the audit.

- Audit risk

Auditors should manage the risks of providing a report that is inappropriate in the circumstances of the audit

The audit risk is the risk that the audit report may be inappropriate. The auditor performs procedures to reduce or manage the risk of reaching inappropriate conclusions, recognizing that the limitations inherent to all audits mean that an audit can never provide absolute certainty of the

- Materiality

Auditors should consider materiality throughout the audit process. Materiality is relevant in all audits. A matter can be judged material if knowledge of it would be likely to influence the decisions of the intended users.

- Documentation

Auditors should prepare audit documentation that is sufficiently detailed to provide a clear understanding of the work performed, evidence obtained and conclusions reached.

SOLUTION FIVE

(i) Principles of forensic auditing

- Planning the audit which involves establishing the terms, obtain understanding, risk assessment, fraud risk identification and developing the audit plan.
- Conducting the audit which is concerned with performing the planned audit procedures to obtain evidence, and evaluating audit evidence and draw conclusions
- Reporting and follow up- Reporting on the basis of the conclusions reached and following up on audit recommendations.

(ii) Fraud Triangle

The **fraud triangle** is a framework commonly used in auditing to explain the motivation behind an individual's decision to commit fraud. The fraud triangle outlines three components that contribute to increasing the risk of fraud: (1) opportunity, (2) incentive, and (3) rationalization.

- Opportunity refers to circumstances that allow fraud to occur. In the fraud triangle, it is the only component that a company exercises complete control over. Examples that provide opportunities for committing fraud include Weak internal controls Poor tone at the top and inadequate accounting policies.
- Incentive, alternatively called pressure, refers to an employee's mindset towards committing fraud.
- Rationalization refers to an individual's justification for committing fraud. examples of common rationalizations that fraud committers use include "they treated me wrong, top management is doing it as well and there is no other solution"

Data analytics is the science of analyzing raw data in order to make conclusions about that information. Many of the techniques and processes of data analytics have been automated into mechanical processes and algorithms that work over raw data for human consumption.

Data analytics facilitates rapid analysis of huge numbers of transactions and have passed through an organization's accounting system, and the identification of anomalies, far more quickly than by traditional documentary analysis.

(iii) Forensic analysis of documents

- Counterfeit documents –These are usually identified by comparing suspected counterfeit documents with original documents. It is the duty of a forensic accountant to ensure that the documents in use are actually the correct version.
- Finger prints-A forensic auditor may not necessarily need to be a fingerprint examination expert but he may collected such suspected documents for expert examination.

- Signature forgeries- This involves comparing the suspect document with a genuine signature in order to establish the difference. However, it is vital to note that genuine differences may arise due to advanced age, poor health, temporal injury and sometimes the use of drugs
- Photocopies- There is a possibility that organizations may keep photocopies to act as the only evidence of original documents especially in circumstances when it is impossible to locate original documents. However, it must be noted that photocopies are not admissible in the courts of law. The forensic auditor must ensure that original documents are obtained.

END OF SOLUTIONS

Zambia Institute of Chartered Accountants

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 19 MARCH 2021

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 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)

Chama district is one of the districts in the recently created Muchinga Province in Zambia. A recently appointed District Commissioner pointed out that the Government needs to increase public expenditure on the newly created districts. Further, she stated that being a new district, Chama district needs to develop infrastructure in tourism sector especially in the National Park which is located in the district. The investment in the National Park will attract both local and foreign tourists to come into the area for leisure purposes.

The National Park is expected to attract an average of 160 tourists per day for each of the four years following the investment phase, after which major new investment would be required in order to maintain demand. The price of admission to the National Park is expected to be K20 per adult aged at least 16 years old and K10 per child aged below 16 years. 60% of tourists are forecast to be children. In addition to admission revenues, it is expected that the average tourists will spend K80 on food and drinks, (of which 30% is profit), and K50 on gifts, (of which 40% is profit). The National Park would open for all the seven days of a week per year throughout the four years' period.

The National Park would take two (2) years to be constructed and start working. It is expected that 50% of the initial cost would be paid immediately, and the balance in one (1) year's time. In addition, working capital of K5 million will be required at the end of year one (1). The realizable value of the non-current assets is expected to be K29 million after four years of operation. Operations would commence after the investment phase has been completed.

Other Information

Annual inflation rate	8%
Initial Cost of investment in National Park	K20 million
Maintenance costs (excluding labour)	K2 million
Discounting rate for investment purpose	8%
Annual insurance costs for National Park	K0.26 million
Labour costs (current price)	K0.41 million

All costs and receipts, excluding maintenance and construction costs and the realizable value, are expressed at current prices. It is expected that all costs and receipts will rise from current values by the amount of annual inflation per year. Annual inflation in Zambia is expected to remain unchanged throughout the four years' period of the project.

Maintenance costs are expected to start increasing by K0.4 million per year from the second year of operations. Chama district will not incur any advertising costs as bill boards will be placed along the main highways at the start of the investment phase. The cost of the bill boards is included in the initial cost of investment.

The District Treasurer has stated that Chama district has access to a K25 million long term bank loan at 11% annual fixed interest rate to provide the necessary finance for the National Park. However, the Town Clerk is of the view that the district should consider using the grants provided by the central Government to finance the investment in the National Park. A smaller loan may then be taken to supplement the grant, in case of a short fall. The amounts of grants to be provided each year depend on the funds allocated to the Ministry of Local Government and Housing on an annual basis.

You have been approached by the Chama district council as an external financial consultant to evaluate the proposed investment in the National Park.

Assume 365 days in a year.

Required:

(a) Prepare a report to the Town Clerk that covers the following:

(i) A financial evaluation of the proposed National Park project using the net present value method of investment appraisal. (15 marks)

(ii) A discussion of the appropriateness of the use of the Government grants to finance the investment in the National Park project. (5 marks)

(iii) A discussion of other factors to be considered before a final decision to invest is made and a final recommendation whether to proceed with the investment. (10 marks)

(b) Explain different types of market failure that can lead to Government expenditure. (10 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

HW Plc is a private company in the manufacturing industry incorporated five (5) years ago. The company manufactures maize seed. The company's shares are listed on the Lusaka Securities Exchange (LUSE). The company has experienced steady growth in sales and profitability over the last three (3) years. HW Plc's objective for the coming year is to double its market share which currently stands at 10%. The other objective for the coming year includes increasing its profitability by 30%.

Salma Ltd is a Government owned manufacturing company. The company produces maize seed which is supplied to farmers at a subsidized price. The organization is managed and controlled by the Ministry of Agriculture and operates a manufacturing plant in one of the locations in Southern Province.

Its total income for the current year will be almost K190 million. The company produces half a million metric tonnes of maize seed in a year but this is still below the annual requirements for maize seed in the country. It is considering increasing its production by arranging a loan facility with a commercial bank. This is because the Government budget provision for Salma Ltd for the current year has already been exhausted. The total debt will be K30 million. The capital and interest will be repaid over 20 years at a variable rate of interest, currently 10% each year. The company was established to support farmers by providing high quality maize seed and thereby ensuring there is enough food for the whole population.

Required:

(a) Discuss the reasons for the differences in the financial objectives of HW Plc and Salma Ltd. (8 marks)

(b) Discuss the main differences in the business risks involved in the achievement of the financial objectives of HW Plc and Salma Ltd and how these risks might be managed. (6 marks)

(c) Explain how the financial risks introduced into Salma Ltd by the use of private sector financing might affect the achievement of its objectives and comment on how these risks might be managed. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Prior to 2001, different countries had their own measuring systems regarding Public Financial Management Systems (PFM). It has been recognized that it is essential and important that there must be an effective PFM as this has been identified as being critical in the creation of a particular country's sustainable development and the elimination of poverty levels. The Public Sector includes all national and sub-national Governments, other entities that would meet the definition of a Government unit, and all enterprises that would be deemed to be public corporations.

The World Bank (WB) and International Monetary Fund (IMF) have defined PFM as budgeting, accounting, internal control, funds flow, financial reporting, and auditing arrangements by which the public sector receive, allocate and utilizes these funds. International Development Agencies initiated the Public Expenditure and Financial Accountability (PEFA) framework.

Required:

(a) Explain the reasons why the International Development Agencies developed the PEFA methodology and why it is required to be complemented by other measurement frameworks in order to effectively assess PFM. (2 marks)

(b) Discuss four (4) other measurement frameworks that complement the PEFA in the effective assessment of PFM systems. (4 marks)

(c) Explain the seven (7) pillars of performance under the PEFA framework. (14 marks)

[Total: 20 Marks]

QUESTION FOUR

A country in the sub Saharan Africa commences its budgetary process with little consultation with the public. The budget process commences with consultation with political leadership who at many times ensure that the programmes included in the budget are in accordance with political ambitions as opposed to programs being aligned to National Development Plans. Further the country has had no annual reports produced or shared with the public. This has resulted in a number of challenges with implementation of activities. Procurement processes are not transparent. Though Government had implemented a number of electronic Government systems, the systems were underutilized.

Regarding, economic performance, the Country, has accumulated debt of 70% of GDP, analyzed as follows:

(1) External Debt - $10.1 bn representing 38% of GDP in 2018
(2) Stock of Government Securities K58.21 bn representing 21% of GDP as at 31st March 2019
(3) Guarantees amounting to $1.3bn representing 5% of GDP

(4) Domestic arrears amounting to K15.6bn.

The domestic arrears were as a result of Government's reluctance to implement commitment control.

Required:

As a consultant of the Ministry of Finance:

(a) Advise the Minister of Finance on the best practice of the financial planning process. (6 marks)

(b) Explain the requirements of good practice in commitment control system. (8 marks)

(c) Recommend measures aimed at improving use of the electronic Government system. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

The Ministry of Higher Education of Country X has become aware of the obsolete machinery used to generate revenue in the trade schools throughout the country. As a result of this, it has decided to approach the Ministry of Finance to facilitate financing of the acquisition of new machinery. The machinery is used for manufacturing plastic cups and basins which is sold in retail shops around the country.

There have been questions raised by the Legislature regarding this investment in trade schools. The Legislature has indicated that the Government resolve to have the machinery installed in all trade schools is a huge risk. They have advised Government to focus this investment on trade schools that are along the line of rail and not the rural areas.

There were also adverse comments from the public, suggesting that the project was too expensive, and most trade schools have not managed their projects effectively. It was also noted that in the recent past, there have been cost overruns on projects being undertaken by the public sector due to failure of officials to identify the risks before undertaking the projects.

Required:

(a) Explain to the Legislature, the four broad categories of risk control and any two (2) ways in which risk can be treated. (12 marks)

(b) Suggest how the project could be managed in order to address issues of cost overruns. (8 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1-T))}\beta_e\right] + \left[\frac{V_d(1-T)}{(V_e + V_d(1-T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1+g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1-T)$$

The Fisher formula

$$(1+i) = (1+r)(1+h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1+h_c)}{(1+h_b)} \qquad F_0 = S_0 x \frac{(1+i_c)}{(1+i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA3.8 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) REPORT

To: The Town Clerk – Chama District

From: External Financial Consultant

Date: xxxxxxxxxxxxxxxxx

RE: EVALUATION OF THE PROPOSED NATIONAL PARK PROJECT

This report is about the proposed investment in the National Park in the newly established Chama district. The report provides a financial evaluation of the project, discusses the appropriateness of using Government grants and additional factors to be considered before a final decision is made. The report concludes with a recommendation regarding the proposal.

Detailed computations relating to the financial evaluation of the project are contained in the appendices attached to this report.

(i) Financial Evaluation of the project

Given that there is a two year investment phase for this project, the first operating cash flows are expected from year 2 as computed in the appendix. The investment in the National Park will produce a positive net present value of K2,026,000, which shows that the proposal is financially viable. On financial grounds, it would be recommended that the project should be undertaken.

(ii) Using the government grants to finance the investment

The government grants are provided to finance the operations of the councils as opposed to financing proposed capital projects. As mentioned in the scenario, the amounts available each year depend on the allocation in the national budget. In case there is a surplus from a grant in the current year, then there is a possibility that the amount may go towards the payment of the K10 million required now. Such a surplus is however highly unlikely to arise because the amounts that are provided to councils by way of government grants are usually considered to be inadequate to finance the operations. Councils have therefore been encouraged to raise funds through several means, including borrowing.

(iii) Other factors to be considered and final recommendation

The financial projections used in the estimate of the net present value (NPV) may the subject of considerable inaccuracy. It would be useful to know the accuracy of estimates of attendance levels per day and the level of spending per guest in the National Park, the accuracy of price and cost changes and the accuracy of the estimate of realisable value at the end of the four years' operating period.

For a major investment, it is unwise to rely on a single estimate of NPV. Sensitivity analysis or simulation should be used in order to ascertain the impact on the NPV of changes in attendance and other key variable upon which the NPV depends.

It would be better to undertake simulation analysis, based upon different possible attendance levels, costs, risk, and so on, in order to estimate a range of possible NPVs, rather than use a single point NPV value.

A crucial question is what happens to cash flows beyond the district's four year planning horizon. The realisable values are asset values, not the value of the National park as a going concern. The value as a going concern could be very different from the asset values, and have a major influence on the investment decision.

The strategic importance of the park to local authority and the Zambian economy as a whole must also be investigated, as this may heavily influence the final decision. Any final decision must encompass all relevant non-financial factors of which little detail has been provided. Chama district must be satisfied that it can recruit an appropriately skilled labour force for the National park, as a failure to do so may result in the project being unsuccessful.

Considering that the project produces a positive NPV, there is a strong belief that it would enable the district earn the minimum possible return on investment. It is therefore recommended that the project should be undertaken although sensitivity analysis or simulation must be undertaken to assess the impact of changes in variables on the NPV

We shall be available to provide any additional service that may be required regarding financial management at the district level.

Signed

External Financial Consultant

APPENDIX TO THE REPORT

Computation of discounted cash flows

	Year 2	Year 3	Year 4	Year 5
	K'000	K'000	K'000	K'000
Earnings (W1) x 1.08	3,951	4,267	4,608	4,977
Less operating expenses				
Maintenance	(2,000)	(2,400)	(2,800)	(3,200)
Insurance (W2) x 1.08	(303)	(327)	(353)	(382)
Labour (W3) x 1.08	(478)	(516)	(558)	(602)
Net operating cash in flow	1,170	1,024	897	793
Working capital (W3) x 1.08	(432)	(467)	(504)	6,803
Realizable value of non-current assets				29,000
Net cash flows	738	557	393	36,596
DCF at 8%	0.858	0.794	0.735	0.681
Present Values	633	442	289	24,922
Net Present Value Calculation				
Sum of present Values of future cash flows				26,286
Present Value of investment phase cash flows				
Year 0 capital outlay			10,000	
Year 1 working capital 5,400 x 0.926			5,000	
Year 1 total capital outlay: K10,000 x 0.926			9,260	
				(24,260)
Net Present Value				2,026

Workings

(1) Computation of the earnings for the first year of operations

	K'000
Adult admission: 40% x 160 x K20 x 365 x $(1.08)^2$	545
Children admission: 60% x 160 x K10 x 365 x $(1.08)^2$	409
Food: 160 x K80 x 30% x 365 x $(1.08)^2$	1,635
Gifts: 160 x K50 x 40% x 365 x $(1.08)^2$	1,362
Total earnings	3,951

(2) Other operating costs for the first year of operations

	K'000
Insurance: K260,000 x $(1.08)^2$	303
Labour: K410,000 x $(1.08)^2$	478

(3) Working capital investment required in year 1 = K5,000,000 x 1.08

= K5,400,000

Year Working capital

		Investment	Change
		K'000	K'000
1		5,400	(5,400)
2	K5,400 x 1.08	5,832	(432)
3	K5,832 x 1.08	6,299	(467)
4	K6,299 x 1.08	6,803	(504)
5		0	6,803

b) The following are the reasons for public expenditure:

i) Public goods: these are goods that are non-rival or non-excludable when used or consumed. Subject to issues such as free-riding which means an exclusively market-based provision would therefore lead to too few public goods being produced.

ii) Merit goods: are similar to public goods but they are not non-rival or non-excludable. From the perspective of social policy, externalities and equity objectives, pure market based provision would lead to too few merit goods being produced from the perspectives of society as a whole.

iii) Externalities: occur when an activity produces costs and benefits that are not directly priced into the market. Leads to sub-optimal behaviour as costs and benefits are borne by others.

iv) Market Power: arises due to lack of sufficient competition to ensure efficient markets. Barriers to entry in markets such as high start-up costs and the existence of natural monopolies can lead to organisations having too much market power to enable competition and pricing decisions that are efficient from a societal perspective.

SOLUTION TWO

(a) There has been a convergence in the objectives of public and private sector organisations. Private sector organisations increasingly need to take notice of the views of a wider group of stakeholders in addition to shareholders. On the other side, the public sector has increasingly adopted management and financial practices based upon private sector models and there has been an increased focus on the need for accountability. It is still the case, however, that private sector companies have as a central objective the need to maximise shareholder wealth.
The differences in the objectives between HW Plc and Salma Ltd arise from the differences in their type. HW Plc is a private sector orgnanisation while Salma Ltd is a public sector organization. The performance measures in the private sector may include profitability and earnings Per Share (EPS).
EPS and growth in EPS has been used by private sector organisations as a measure of success and EPS growth can be compared with other organisations. Growth in EPS is seen as an important means of assessing company performance both by the market and by shareholders. However, organisational decisions need to be based upon a broader set of criteria.
EPS is not appropriate to the public sector where there is more attention on issues such as economy, efficiency and effectiveness and obtaining value for money.
Returns and investment
Private sector organisations will need to set targets in terms of the return on capital employed in order to ensure that the needs of shareholders are met. The latter will expect a return which adequately compensates them for the risks which they are taking.
Public sector organisations may set targets in terms of a required return on capital but ultimately other factors are more important in assessing their success and the acquisition of resources may be more closely linked to political issues than purely financial ones. For example Salma Ltd provides maize seed at a subsidized price to farmers because it objective is not necessarily to make profit but to improve the economy by providing jobs and maize seed to farmers so that there is food security for all.
Most private sector organisations will use investment decision criteria based upon investment appraisal, calculating NPV’s using a weighted cost of capital, or a risk adjusted rate based upon this. The cost of capital for public sector organizations is effectively fixed by the Ministry of Finance. It is unlikely to be risk adjusted and any public sector evaluation may take into consideration social costs and benefits.
While private sector companies can freely borrow funds in the marketplace, subject to the normal market judgements of their ability to repay and use the money effectively, public sector organization’s normally work within a cash limited budget within a single fiscal year. This sometimes means that there are difficulties in adequately funding long term investments as there is a pre-occupation with staying within short term financial limits.

(b) There is a difference between the Private and Public sectors in terms of the management of risk. Private sector organization’s generally have to compete for customers and ensure that they charge a price which covers cost, generates a profit, but is nevertheless competitive with other suppliers. The main risk they face is a loss of customer demand.
Public sector services are often provided free of charge to the user, or at subsidized cost to the user. The agricultural sector has the challenge of providing food security for all so as to avoid hunger in the country. Other areas of the public sector may need to have contingency plans for sudden changes in state funding, which will impact upon financial viability. The public sector may thus face risks of both excess demand and reduced funding because of demand changes or changes in political priorities.

Managing risk in the private sector may therefore entail:

(1) Meeting the needs of customers and of stakeholders
(2) Undertaking market research to get a better understanding of customers and markets
(3) Taking steps to assess and manage risks via insurance, hedging of foreign exchange and interest rate risks.
Managing risks in the public sector may therefore entail:
(1) Monitoring of economy, efficiency and effectiveness and value for money
(2) Using internal markets to purchase services and establish 'fair' transfer prices
(3) Using private sector funds where appropriate to give longer term investment horizons.

(c) The loan would limit the longer term fiscal flexibility because the government, through Salma Ltd would be required to make contractual payments to the private sector partner (s), with such payments extending into the longer term. Because such payments will be contractual, Salma Ltd must ensure that they are made even if their payment would hinder the achievement of Salma Ltd objectives.
The risks arising should be reduced by ensuring that the government sets overall limits on private sector financing which should not be exceeded. The proposed private sector financing should therefore ensure that the overall limit on private sector financing already in place will not be exceeded.

SOLUTION THREE

(a) When defining public financial management, the focus has been primarily on financial processes centred on the budget cycle and the operational performance of certain key elements of this rather than the entire complement at PEFA assessment or provide information and support on areas that are not explicitly covered by it.

(b) Four (4) of the other frameworks and guidance that can either complement a PEFA assessment include:

- Public Expenditure Tracking Survey
  Designed to provide information on actual public spending from different tiers of Government by collecting micro-level data from frontline service delivery facilities. Examines characteristics of the facility, financial flows, outputs and accountability arrangements.
- OECD Principles of Budgetary Governance
  Guidance providing an overview of good practice across the budget cycle based on ten principles. Provides support for other good public governance
- The Open Budget Index
  Independent, comparative measure of central government budget transparency. Focuses specifically on whether the government provided the public with timely access to comprehensive budget information.
- SIGMA Principles of Public Administration.
  Public Administration reform principles based on internationally recognized good governance principles such as accountability, reliability, predictability, participation, openness, transparency, efficiency and effectiveness.

(c) PEFA identified seven (7) pillars of performance that are essential to achieving the objectives (outcomes) of an effective PFM system of both fiscal and budgetary i.e.

- Aggregate fiscal discipline requires effective control of the total budget and the management of fiscal risks,
- Strategic allocation of resources involves planning and executing the budget in line with Government priorities aimed at achieving policy objectives and
- Efficient service delivery requires using budgeted revenues to achieve the best level of public services within available resources.

The seven pillars are:

	Pillar	Description of Pillar
1	Budget Reliability	The Government budget is realistic and is implemented as intended. This is measured by comparing actual revenues and expenditures(the immediate results of the PFM system) with the original approved budget
2	Transparency of public finances	Information on PFM is comprehensive, consistent, and accessible to users. This is achieved through comprehensive budget classification, transparency of all government revenue and expenditure including intergovernmental transfers, published information on service delivery performance and ready access to fiscal and budget documentation.
3	Management of Assets and Liabilities	Effective management of assets and liabilities ensures that public investments provide value for money, assets are recorded and managed, fiscal risks are identified, and debts and guarantees are prudently planned, approved, and monitored.
4	Policy-based	The fiscal strategy and budget are prepared with due regard to

	fiscal strategy and budgeting	government fiscal policies, strategic plans, and adequate macroeconomic and fiscal projections.
5	Predictability and Control in budget execution	The budget is implemented within a system of effective standards, processes, and internal controls, ensuring that resources are obtained and used as intended.
6	Accounting and Reporting	Accurate and reliable records are maintained, and information is produced and disseminated at appropriate times to meet decision-making, management, and reporting needs.
7	External Scrutiny and Audit	Public finances are independently reviewed and there is external follow-up on the implementation of recommendations for improvement by the executive.

(a)	Explain why the International Development Agencies developed PEFA methodology and why it required to be complemented by other measurement frameworks in order to effectively assess PFM. When defining public financial management, the focus has been primarily on financial processes centered on the budget cycle and the operational performance of certain key elements of this rather than the entire complement at PEFA assessment or provide information and support on areas that are not explicitly covered by it.	
(b)	Identify four(4) the other measurement frameworks that complements and supplements the PEFA in the effective assessment of PFM systems b). Four (4) of the other frameworks and guidance that can either complement a PEFA assessment include: • Public Expenditure Tracking Survey Designed to provide information on actual public spending from different tiers of Government by collecting micro-level data from frontline service delivery facilities. Examines characteristics of the facility, financial flows, outputs and accountability arrangements. • OECD Principles of Budgetary Governance Guidance providing an overview of good practice across the budget cycle based on ten principles. Provides support for other good public governance • The Open Budget Index Independent, comparative measure of central government budget transparency. Focuses specifically on whether the government provided the public with timely access to comprehensive budget information. • SIGMA Principles of Public Administration. Public Administration reform principles based on internationally recognized good governance principles such as accountability, reliability, predictability, participation, openness, transparency, efficiency and effectiveness.	

Identify and describe the seven (7) pillars of performance of PEFA

(c) The seven pillars are:

	Pillar	Description of Pillar
1	Budget Reliability	The Government budget is realistic and is implemented as intended. This is measured by comparing actual revenues and expenditures(the immediate results of the PFM system) with the original approved budget
2	Transparency of public finances	Information on PFM is comprehensive, consistent, and accessible to users. This is achieved through comprehensive budget classification, transparency of all government revenue and expenditure including intergovernmental transfers, published information on service delivery performance and ready access to fiscal and budget documentation.
3	Management of Assets and Liabilities	Effective management of assets and liabilities ensures that public investments provide value for money, assets are recorded and managed, fiscal risks are identified, and debts and guarantees are prudently planned, approved, and monitored.
4	Policy-based fiscal strategy and budgeting	The fiscal strategy and budget are prepared with due regard to government fiscal policies, strategic plans, and adequate macroeconomic and fiscal projections.
5	Predictability and Control in budget execution	The budget is implemented within a system of effective standards, processes, and internal controls, ensuring that resources are obtained and used as intended.
6	Accounting and Reporting	Accurate and reliable records are maintained, and information is produced and disseminated at appropriate times to meet decision-making, management, and reporting needs.
7	External Scrutiny and Audit	Public finances are independently reviewed and there is external follow-up on the implementation of recommendations for improvement by the executive.

SOLUTION FOUR

<table>
<tr><td>1a</td><td>You are a consultant of the Ministry of Finance, Advise the Minister of Finance on the best practice of financial planning process, managing commitments and how to improve use of the electronic Government system.</td><td></td></tr>
<tr><td></td><td>Best Practice Financial Planning.
Government sets its target for economic performance using fiscal rules. These rules set targets for the level of government deficit (the difference between income and expenditure in a year) and debt (the stock of accumulated deficits) at the end of the five-year term.
Spending Reviews conducted by the Treasury then set spending limits for future years for departments and other parts of the public sector following a process of negotiation. The Spending Reviews aim to achieve the fiscal rules and also wider public sector strategic objectives.
Annual budgets for departments and other public bodies are based on the spending limits set in the Spending Review. These annual budgets are subject to scrutiny, debate and vote by the legislature.</td><td></td></tr>
<tr><td></td><td>Good practice in commitment control systems requires that:
A commitment is incurred only when it is within budget appropriations and any expenditure ceilings and cash releases approved by the MoF;
No payments are made unless based on approved commitments;
Outstanding commitments and unpaid invoices and other bills are monitored on a regular basis; and
Payments arrears should not accumulate and if they do should be cleared as a matter of priority.</td><td></td></tr>
<tr><td></td><td>How to improve use of the electronic Government system.
Government should develop strategic approaches for organizing and assembling resources such as computers and networks and intangible resources such as employee skills and knowledge and organizational processes
Government needs to have a significant population of citizens willing and able to adopt and use online services.
Developing the managerial and technical capability to implement electronic government applications to meet the citizen's needs.</td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

SOLUTION FIVE

S/N	Question	
a)	**Explain to the Legislature, the four broad categories of risk control and four ways in which risk can be treated.**	
	Four Broad Categories • **Tolerate –** No further action taken but contingency plans can be put in place to address the impacts of the risk should it arise. • **Treat** – Reducing the risks likelihood and / or impact to an acceptable level. • **Transfer** – Risk is transferred to third parties through insurance or other similar mechanisms • **Terminate –** Where the risk is so great the only point is terminating the activity. The option can be restricted in the public sector as there may be legal or other requirement to deliver a public good or service Risks are treated by applying controls which fall within the following categories: • **Preventive –** Limit the possibility of an outcome occurring • **Corrective –** Designed to correct outcomes when they have occurred • **Directive –** Ensure that a particular outcome is achieved to prevent an undesirable outcome. • **Detective** – Identify risk events occurring.	
b)	Suggest how the project could be managed in order to address issues of cost overruns.	
	• **Ensure that budget control is strong**. Put in place controls such as regular comparisons of actual to budget both in terms of cost and stage of completion. If variances and their causes are identified at an early stage they will be easier to address. • **Transfer some/or all of the risk**. This can be achieved by agreeing the price of certain elements of the construction process with private sector contractors. Additionally, the project can be split up into stages with a specified completion time for each and penalties for contractors if this timetable is not met. It should be noted that transferring the risk to in this manner is likely to lead to the contractors quoting a price that incorporates a cost related to the risk transferred. Nonetheless it would meet the objective of reducing the risk of cost and time overruns. • **Impose rigorous procurement procedures.** There is a danger that poor procurement procedures lead to cost escalation. Contractors may perceive that there is a very large budget and quote excessive costs. To avoid this procurement procedures should be rigorous and ensure that competitive quotes are obtained to ensure that value for money is obtained. Additionally, the very large budgets associated with large capital projects may act as a target for corruption. Accordingly, procurement procedures should include	

	provisions to minimize the risk of corruption such as prohibiting the awarding of contract to parties connected to those awarding them. • **Use public sector audit resources.** Regular audit of large, long term capital projects can also play an important role in ensuring that costs remain in line with budget. A variety of roles can be satisfied by public sector audit in respect of such projects including: ✓ Verification of the stage of completion ✓ Ensuring that controls including those over procurement are effectively implemented ✓ Reporting on whether value for money is being obtained ✓ Investigating the causes of cost overruns and recommending remedial action ✓ Investigating any instances of misappropriation, or other impropriety, if identified • **Contingency funding.** The inclusion of an appropriate level of contingency funding within the capital budget would be prudent. There is always the potential for unexpected costs in large and complex long-term capital projects; contingency provides financial resilience in the budget to cover such unexpected costs.	

END OF SOLUTIONS