Zambia Institute of Chartered Accountants

QUESTION AND ANSWER

FOR

JUNE 2019

CA ZAMBIA PROGRAMME

PAPERS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 10 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A – (COMPULSORY)

Attempt all Ten (10) multiple choice questions.

QUESTION ONE

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

1.1. The accounting process involves recording:

A. Quantifiable economic event
B. Non quantifiable economic event
C. All of them
D. None of them

(2 marks)

1.2 Chimuka Banda started in business by opening a corner shop in Chimwemwe called Morning Rise (MR). On 1 January 2018 Chimuka opened a bank account for the corner shop and deposited K15,000. During the first month of operations the following transactions occurred:

1. Display shelves for the corner shop are purchased for K5,400 for cash.
2. Jigs are purchased from Mama Africa for K6,000.
3. Jigs costing K3,000 are sold for K4,500 cash.
4. Chimuka pays K600 out of the business to a taxi driver who takes his son to school.
5. Chimuka's friend Mapalo loans K1,500 to MR.

Write down the accounting equation after all of these transactions have taken place

	Assets =	Capital +	Liabilities
A.	19,500	16,500	3,000
B.	21,000	15,000	6,000
C.	17,400	15,900	1,500
D.	19,500	15,000	4,500

(2 marks)

1.3 Which of the following statements describe transactions that would be recorded in the accounting system?

A. An exchange of a promise for another promise to pay
B . An exchange of an asset for a promise to pay
C. Both of the above
D. None of the above

(2 marks)

1.4 Which of the following statements would be considered true regarding debits and credits?

A. In any given transaction, the total Kwacha amount of the debit and the total Kwacha amount of the credit must be equal
B. Debits decrease certain accounts and credits decrease certain accounts
C. Liabilities and shareholders' equity accounts usually end in credit balances while assets usually end in debit balances
D. All of the above

(2 marks)

1.5 In accounting, an Economic event is referred to as:

A. the movement of cash
B. Monetary measurement
C. Transaction
D. Exchange of money

(2 marks)

1.6 After calculating Chuma Chalinkana's profit for the year, you have discovered two things:

1. A non-current asset costing K50,000 has been included in the purchases account;
2. Stationery costing K10,000 has been included as closing inventory of raw materials instead of inventory of stationery.

These two errors have had the effect of

A. Understating gross profit by K40,000 and understating net profit by K50,000
B. Understating both gross profit and net profit by K40,000
C. Understating gross profit by K60,000 and understating net profit by K50,000
D. Overstating both gross profit and net profit by K60,000

(2 marks)

1.7 A credit entry of K950,000 on Mwambazi's account in the receivables ledger of Sandikonda could have arisen by:

A. Mwambazi buying goods costing K950,000 on credit from Sandikonda
B. Sandikonda paying Mwambazi K950,000
C. Sandikonda returning goods costing K950,000 to Mwambazi
D. Mwambazi returning goods costing K950,000 to Sandikonda

(2 marks)

1.8 Kangwa Lukusu trading as KL Motor Spares ends his financial year on 28 February each year. His telephone was installed on 1 April 2016 and he receives his telephone account quarterly at the end of each quarter. He pays it promptly as soon as it is received.

KL Telephone expenses for the three months ended

	K
30 June 2016	235,000
30 September 2016	272,000
31 December 2016	334,000
31 March 2017	360,000

On the basis of the above data, you are required to calculate the telephone expense to be charged to the profit and loss account for the year ended 28 February 2017.

A. K1,201,000
B. K1,081,000
C. K961,000
D. K841,000 (2 marks)

1.9 After preparing the trial balance, a suspense account was opened. The following errors were discovered by Mabvuto Phirison the trainee accountant:

1. The opening inventory costing K12,000 was omitted from the balances recorded in the trial balance.
2. A debt totaling K2,400 which was written off had finally been received and the trainee accountant credited the bad debts expense account and the receivables control account and debited the cash book with the cash received.

You are required to calculate the balance on the suspense account.

A. K9,600 debit
B. K14,400 credit
C. K9,600 credit
D. K14,400 debit (2 marks)

1.10 Blandina had a sales figure of K675,000, a gross profit of K275,500 and a net profit of K42,720. The following transactions were omitted in the calculation of profit.

1. Purchase of goods for year 2018 amounted to K4,260.
2. Closing inventory as at 31 December 2018 amounted to K1,560.

Blandina has asked you as a trainee accountant to recalculate the gross profit and the net profit for the year ending December 2018.

A.	Gross profit K272,800	Net Profit K40,020	
B.	Gross profit K273,940	Net Profit K40,020	
C.	Gross profit K277,060	Net Profit K38,460	
D.	Gross profit K272,800	Net Profit K38,460	(2 marks)

[Total: 20 Marks]

SECTON B
Question Two in this Section is compulsory and must be attempted.
Then attempt any THREE (3) questions from the remaining FOUR.

<u>QUESTION TWO</u> – THIS QUESTION IS COMPULSORY AND MUST BE ATTEMPTED.

Below is a trial balance for Kwashamukwenu Enterprises for the year ended 31 December 2017.

Purchases/Sales	1,104,440	1,987,130
Premises	500,000	
Plant and Machinery at cost	430,000	
Fixtures and Fittings at cost	90,000	
Motor Vehicles at cost	180,000	
Plant and Machinery Accumulated Depreciation		145,750
Fixtures and Fittings Accumulated Depreciation		17,125
Motor Vehicles Accumulated Depreciation		86,500
Inventory – 1 January 2017	310,725	
Returns	33,885	54,910
Carriage inwards	12,165	
Carriage outwards	26,000	
Wages	210,500	
Rent	16,000	
Light and Heat	3,750	
Discounts	18,940	6,060
Telephone	7,445	
Printing and stationery	10,660	
Irrecoverable debts	6,720	
Motor Expenses	25,640	
Repairs	12,550	
Advertising	21,645	
Insurance	8,250	
Accountancy fees	13,750	
Loan interest	55,000	
Bank interest	25,555	
Allowance for Irrecoverable debts		30,000
Trade Receivables	397,260	
Trade Payables		280,780
Cash at Bank		127,415
Cash in hand	6,000	
Long term loan		550,000
Drawings	30,000	
Capital		271,210
	3,556,880	3,556,880

NOTES:

1. Depreciation is to be provided as follows: -

Plant and machinery	25% Straight line basis
Fixtures and fittings	10% Straight line basis
Motor vehicles	20% Straight line basis

2. The shop accountant feels that a 10% Allowance for Irrecoverable debts should be made.

3. The following amounts had not been provided for:

   (a) A Zesco bill amounting to K6,250 for the shop for the year ended 31 December 2017 has just been received. The Cash Book shows a payment of K3,750 to date (31 December 2017).

   (b) The following telephone bills due had not been provided for:

Month	Bill amount
	K
October 2017	625
November 2017	875
December 2017	375

   (c) Due to the outbreak of cholera in Lusaka, the business experienced declining sales for the first part of the year. Kwashamukwenu negotiated that rentals be reduced to K18,000 for the year 2017. A deposit of K16,000 has been paid so far.

4. Insurance costs are K562.5 per month

5. Closing inventory at 31 December 2017 was valued at K352,135

6. Closing inventory of stationery at 31 December 2017 amounted to K1,750.

7. Kwashamukwenu, the owner of the shop, took goods for his personal use valued at K2,500.

Required:

(a) Prepare Kwashamukwenu Enterprises' statement of profit or loss for the year ended 31 December 2017. (12 marks)

(b) Prepare Kwashamukwenu Enterprises' statement of financial position as at 31 December 2017. (8 marks)

[Total: 20 Marks]

QUESTION THREE

Jewel prepared a preliminary set of accounts for the year to 30 April 2019 and found the profit to be K24,845. Now she is set to clear the suspense account which had a credit balance of K141 and adjust the profit with the necessary corrections and omitted accruals as compiled at the end of the year.

1. Cash of K3,600 paid for repairs of machinery was entered correctly in the Cash book but was posted to the credit of machinery account.
2. Cash received for the sale of a piece of equipment of K4,200 was correctly entered in the cash book but was debited to the disposal account.
3. The opening balance of an amount owing to the supplier of Stationery of K867 was omitted from the Trial Balance. There was inventory of stationery at the end of the year amounting to K6,450, which had not been adjusted for yet.
4. Jewel took goods worth K678 for personal use. The amount was debited to purchases account and credited to drawings account.
5. The total of discount allowed column in the cash book of K963 was debited in error to the discount received account.
6. Jewel received rent from a tenant and the annual amount had been K7,200 until 31 December 2018 when it was changed to be K8,400. The rent is received for each calendar quarter in advance on 1 January, 1 April, 1 July, and 1 October.
7. The receivables at the end of the year totaled K340,000 whereas the balance on the Allowance for receivables account brought forward from last year was K22,500. Debts amounting to K15, 400 have to be written off and an allowance for receivables has to be adjusted to 8% of the receivables.

Required:

(a) Prepare Journal entries to correct the errors from 1 to 5 (6 marks)

(b) Prepare the following accounts: The Suspense Account, Rent Receivables account, the Irrecoverable Debts expense account and the Allowance for Receivables Account. (8 marks)

(c) Prepare the adjusted profit for the year to 30 April 2019, taking into account all corrections and transfers from the accounts prepared in (b). (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Copper Mining Ltd, a mining firm, prepares its final accounts to 31 December each year. The company's policy is to depreciate its machinery on a straight line basis over 10 years.

(i) Scrap value is estimated at 5% of the original cost of the machine.

(ii) Depreciation is charged on a pro-rata basis. (Calculations should be to the nearest kwacha.

The table below shows machines owned by Copper Mining Ltd as at 1 January 2017:

	Machine type	Date purchased	Amount (K)
	Machine A	1 July 2014	7,500,000
	Machine B	1 September 2015	9,750,000
	Machine C	1 January 2016	11,250,000

On 1 March 2017, Machine A was involved in an accident during its operations in the open pit and the equipment was heavily damaged. The Zambia state insurance company paid out K3,750,000 in respect of this damage and K375,000 was received from the sale of the machine to Scotoa scrap metal dealer. On 1 March 2017 a new machine, Machine D was purchased to replace Machine A at a cost of K9,000,000.

On 1 January 2018 modifications were carried out on Machine C's engine to increase its speed and productivity. Modifications cost Copper Mining Ltd K600,000. Depreciation on this modification is K71,250 per year.

On 1 April 2018, Machine B was traded-in for K4,125,000 against a new machine, Machine E which had a normal purchase cost of K8,250,000. The balance of the purchase cost was paid immediately by cheque. Copper Mining Ltd hired Chalalambas to transport machine E from South Africa at a cost of K300,000, the mining firm also paid Bell machines to have the machine installed at a cost of K60,000.

Required:

Open the following accounts for each of the two years 2017 and 2018.

(a) The Machinery Account. (7 marks)
(b) The Provision for Depreciation Account. (7 marks)
(c) The Machinery Disposal Account. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

Lusaka Pool Club has been in operational existence since 2010 when it was first registered by the Registrar of Societies in Zambia. All Club takings are in cash which is paid into the official bank account. The following Receipts and Payment Account relates to Club transactions for the year 2018:

Receipts	K'000	Payments	K'000
Balance at Bank 1.1.2018	173	Bar supplies	2,081
Members' subscriptions	2,173	Wages of staff	850
Membership entrance fees	50	Rent	350
Competition receipts	228	Heat & Lighting	220
Loan from Bayport	10	Cleaning	175
Bar takings (sales)	2,510	Competition prizes	110
Sale of old furniture (Nil NBV)	50	Rates for 15 months ended 31.3.2019,	200
		Purchase of new furniture on 30.6.2018	300
		Sundries	102
		Special Bank deposit on 1.11.2018	300
		Balance on 31.12.2018	506
	5.194		**5,194**

Other information:	**1.1.2018**	**31.12.2018**
	K'000	**K'000**
Furniture & Equipment	2,000	-
Special Bank deposit	1,000	-
Stocks – Beer, wines, etc	120	140
Stocks of Competition Prizes	35	20
Accounts payables for bar supplies	180	220
Members' subscriptions in arrears	45	65
Members' subscriptions paid in advance	30	25

Assume depreciation on furniture and equipment is 12% per annum and for interest on the special Bank Deposit at the rate of 11.9% per annum. New members were not liable for an annual subscription in their first year.

Required:

(a) Income and Expenditure Account for the year ended 31 December 2018.

(12 marks)

(b) A Statement of Financial Position as at 31 December 2018. (8 marks)

[Total: 20 Marks]

QUESTION SIX

Jane goes to South Africa to buy curtains and curtain rails. She sells them to Shop owners in Kamwala Business District. All her sales are at a gross profit margin of 60%, considering that she draws no salary for herself. She does not keep elaborate accounting records but provides you with the following information:

Assets as at 30 June 2018:	K
Motor Vehicle (Cost 3 years ago K 45,000)	30,000
Inventory	24,500
Trade Receivables	8,950
Rent prepaid	750
Bank	23,420
Cash	10,765
	98,385

Jane tells you that on 1 July 2018 she owed K10,000 to ASA Micro-Finance, K2,355 to suppliers and K670 for electricity. A record of cash transactions shows the following during the year to 30 June 2019:

Deposits into Bank:	K
Cheques from credit customers	22,870
Cash sales (Cash banked)	118,300
Disposal of Motor vehicle (old van)	33,250
	174,420

Payments (all by cheque):	
Motor Vehicle	75,000
Suppliers of Inventory	16,440
Office expenses	4,520
Import duty on purchases	25,809
Loan repayment	2,500
Customer cheque returned	2,500
Bank charges	365
	127,134

Notes:

1. Jane made cash payments for office expenses of K9,250. This included reimbursable repairs to the rented building of K6,000. The property owner is sure to reimburse the amount in July 2018.
2. Jane does not know the value of closing inventory, but remembers that she took curtains and mats for her personal home use worth K 1,500. She counted stock of stationery to be worth K 724.
3. At the end of the year listings of unpaid invoices issued to customers totaled K3,747. Jane owed suppliers K2,246 for inventory bought, ZESCO for electricity bills of K1,054.
4. Jane has an arrangement with ZRA such that she is allowed to pay 2/3 of import duty and clears the balance the following month after the purchase. An accrual is required.
5. Motor vehicles are replaced after 8 years. The charge for depreciation assumes a residue value of K15,000. Full year's depreciation is charged in the year of acquisition and non in the year of disposal of non-current assets.
6. Cash in hand on 30 June 2019 is K21,400. The payments for Office expenses include rent, stationery, electricity bills and other consumables.

Required:

(a) Calculate the cash balance (using individual entries) and bank balance (using totals) as at 30 June 2019 (4 marks)

(b) Calculate the charge to the Statement of Profit or Loss for Office expenses (3 marks)

(c) Statement of Profit or Loss for the year ended 30 June 2019 and (Detailed 'T Accounts are not required) (9 marks)

(d) A Statement of Financial Position as at 30 June 2019 (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.1 FINANCIAL ACCOUNTING SOLUTIONS

SOLUTION ONE

ANSWERS TO MULTIPLE CHOICE QUESTIONS

NO.	Answer	Explanation
1.	A	Quantifiable economic event This is the money measurement concept
2.	C	Assets = Capital + Liabilities 17,400 15,900 1,500
3.	B	An exchange of an asset for a promise to pay
4.	D	All of the above
5.	C	Transaction
6.	A	Understating gross profit by K40,000 and understating net profit by K50,000
7.	D	Mwambazi returning goods costing K950,000 to Sandikonda Mwambazi is a receivables account in Sandikonda's books. When goods are returned to Sandikonda by Mwambazi (a receivable) a credit entry will be made in Mwambazi account.
8.	B	30 June 2016 235,000 30 September 2016 272,000 31 December 2016 334,000 31 March 2017 (360,000/3 X2) 240,000 1,081,000
9.	D	Omitted opening inventory is a debit in the suspense K12,000 a recovered debt is a debit in the suspense K2,400 Total K12,000 + K2,400 = K14, 400
10.	A	Gross profit K272,800 Net Profit K40,020 The gross profit will not be affected because packaging materials are treated as expenses. The charge in the income statement is Purchase (K4,260 less Closing inventory K1,560 = K2,700 Adjusted Net profit K42, 720 – K2,700 = K40, 020

SECTION B

SOLUTION TWO

Kwashamukwenu Enterprises

Statement of Profit or Loss for the year ended 31st December 2017

Sales			1,987,130.00
Sales returns			33,885.00
			1,953,245.00
Opening inventory		310,725.00	
Purchases	1,104,440.00		
Less: Purchases returns	54,910.00		
	1,049,530.00		
Add: Carriage inwards	12,165.00		
		1,061,695.00	
		1,372,420.00	
Less: Goods withdrawn for personal use		2,500.00	
Total inventory available for sale		1,369,920.00	
Less: Closing inventory		352,135.00	
Cost of sales			1,017,785.00
Gross profit			935,460.00
Add: Other income			
Discount received			6,060.00
Total Income			941,520.00

Less: Expenses

Carriage outwards		26,000.00
Wages		210,500.00
Rent	16,000.00	
Add: Rent accrued	2,000.00	
Total rental charges		18,000.00
Heat and light	3,750.00	
Add: Electricity Bills accrued	2,500.00	
		6,250.00
Discount allowed		18,940.00
Telephone	7,445.00	
Add: Telephone bills accrued	1,875.00	
		9,320.00
Printing and stationery	10,660.00	
Less: Inventory of stationery	1,750.00	
		8,910.00
Irrecoverable debts		6,720.00
Motor expenses		25,640.00
Repairs		12,550.00
Advertising		21,645.00
Insurance	8,250.00	
Less: Insurance prepaid	1,500.00	
		6,750.00

Accountancy fees	13,750.00	
Loan interest	55,000.00	
Bank interest	25,555.00	
Depreciation - Plant and Machinery	107,500.00	
Depreciation - Fixtures and Fittings	9,000.00	
Depreciation - Motor Vehicles	36,000.00	
Increase in Allowance for irrecoverable debts	9,726.00	
Total expenses		627,756.00
Net Profit		313,764.00

Kwashamukwenu Enterprises

Statement of Financial Position as at 31st December 2017

	Cost	Accumulated Dep.	NBV
Non-Current Assets			
Premises	500,000.00	-	500,000.00
Plant and machinery	430,000.00	253,250.00	176,750.00
Fixtures and Fittings	90,000.00	26,125.00	63,875.00
Motor Vehicles	180,000.00	122,500.00	57,500.00
	1,200,000.00	401,875.00	798,125.00
Current Assets			
Inventory		352,135.00	
Trade Receivables	397,260.00		
Provision for bad debts	39,726.00		
		357,534.00	

Prepaid stationery		1,750.00	
Prepaid Insurance		1,500.00	
Cash		6,000.00	
			718,919.00
Total Assets			1,517,044.00
Capital and Equity			
Opening Capital		271,210.00	
Add: Net Profit		313,764.00	
		584,974.00	
Less: Drawings	30,000.00		
Goods withdrawn for personal use	1,500.00		
		31,500.00	
		553,474.00	
Non-Current Liabilities			
Long term Loan		550,000.00	
Current liabilities			
Trade payables	280,780.00		
Bank O/D	127,415.00		
Accrued Rent	2,000.00		
Accrued Electricity bills	1,500.00		
Accrued Telephone bills	1,875.00		
		413,570.00	
			1,517,044.00

SOLUTION THREE

Journal entries	**DR**	**CR**
1. Machinery account	3 600	
Machine repair account	3 600	
Suspense account		7 200
2. Suspense account	8 400	
Disposal account		8 400
3. Suspense account	867	
Stationery account		867
4. Stationery Inventory (stock account)	6 450	
Profit & Loss account (Trading section)		6 450
5. Drawings account (678 x 2)	1 356	
Purchases account		1 356
6. Discount Allow account	963	
Discount Received account	963	
Suspense account		1 926

Note: The entry to suspense account for the first and the last journals can be split.

S U S P E N S E ACCOUNT

Disposal	8 400	Per Trial Balance	141
		Machine Repairs	3 600
Stationery	867	Machinery account	3 600
Discount allowed	963	Discount Received	963
	9 267		9 267

RENT RECEIVABLE ACCOUNT

		Balance b/d	1 200
Profit & Loss	7 600	Bank	7 800
Balance b/d	1 400		
	9 000		9 000
		Balance b/d	1 400

ALLOWANCE FOR RECEIVABLES ACCOUNT

Balance b/d	22 500		
Irrecoverable debts	3 468	Balance c/d	25 968
	25 968		25 968

IRRECOVERABLE DEBTS ACCOUNT

Trade Recev	15 400		
Allow for Receiv	3 468		
		Profit & Loss	18 868
	18 868		18 868

Workings:

1. Quarterly rent:K 7 200/4 =K 1800, therefore, rent prepaid at start is 1800/3 x 2 months = K 1200
2. Rent received per quarter after revision is: K 8 400/4 = K 2100. Therefore, rent prepaid at the end is 2100/3 x 2 months = K 1400
3. Rent was received as follows:

	K
1 July 2018	1 800
1 October 2018	1 800
1 January 2019	2 100
1 April 2019	2 100
Total	7 800

ADJUSTING NET PROFIT	K	K
Net profit per draft accounts		24 845
Credit entries to the P/L -add:		
Closing Inventory		6 450
Stationery		867
Drawings		1 356
Rent received		7 600
		41 118

Debit entries to the P/L –deduct:

Repairs to machinery	(3 600)	
Irrecoverable debts	(18 868)	
Discount Allowed	(963)	
Discount received	(963)	
		(24 394)
Adjusted Net Profit		16 724

SOLUTION FOUR

(a)	Machinery account			
DATE	**DETAILS**	**F**	**DEBIT**	**CREDIT**
01.01.17	Balance	b/f	28,500,000.00	
01.03.17	Machinery Disposal Account			7,500,000.00
01.03.17	Bank		9,000,000.00	
31.12.17	Balance	c/d		30,000,000.00
			37,500,000.00	37,500,000.00
01.01.18	Balance	b/f	30,000,000.00	
01.01.18	Bank		600,000.00	
01.04.18	Machinery Disposal Account			9,750,000.00
01.04.18	Bank and Machinery at Cost		8,610,000.00	
31.12.18	Balance	c/d		29,460,000.00
			39,210,000.00	39,210,000.00
01.01.19	Balance	b/f	29,460,000.00	

(b)	PROVISION FOR DEPRECIATION ACCOUNT			
DATE	**DETAILS**	**F**	**DEBIT**	**CREDIT**
01.03.17	Balance	b/f		4,085,000.00
01.03.17	Machinery Disposal Account		1,900,000.00	
31.12.17	Statement of Profit or loss			2,826,250.00
31.12.17	Balance	c/d	5,011,250.00	
			6,911,250.00	6,911,250.00
01.01.18	Balance	b/f		5,011,250.00
01.04.18	Machinery Disposal Account		2,392,813	
31.12.18	Statement of Profit or loss			2,840,026
31.12.18	Balance	c/d	5,458,463	
			7,851,276	7,851,276
01.01.19	Balance	b/f		7,619,787.50

(c) **Machinery disposal account**

DATE	DETAILS	F	DEBIT	CREDIT
01.03.17	Machinery Account		7,500,000.00	
01.03.17	Insurance			3,750,000.00
01.03.17	Scrap			375,000.00
01.03.17	Provision for Depreciation account			1,900,000.00
31.12.17	Statement of Profit or loss			1,475,000.00
			7,500,000.00	7,500,000.00
01.01.18	Machinery Account		9,750,000.00	
01.01.18	Trade in allowance			4,125,000.00
01.01.18	Provision for Depreciation account			2,392,812.50
31.12.18	Statement of Profit or loss			3,232,187.50
			9,750,000.00	9,750,000.00

SOLUTION FIVE

Lusaka Pool Club Income and Expenditure Account for year ended 31 December 2018

Income	**K'000**	**K'000**
Subscription fees (w)		2,198
Membership entrance fees (w)		50
Competition receipts (w)		103
Bar profit (w)		409
Gain on disposal of furniture		50
Interest on special bank deposit (w)		125
		2,935
Expenditure		
Wages	850	
Rent	350	
Heat and light	220	
Cleaning	175	
Rates (200 – 3÷15 x 200)	160	
Sundries	102	
Depreciation on Furn. & Equip.		
[(12% x 2,000) + (12% x 300 x 6÷12)]	258	2,115
Surplus/deficit for the year		820

<u>Workings for Income and Expenditure Account</u>

(1) Subscriptions Account

Balance b/d (1.1.18)	45	Balance b/d (1.1.18)	30
Income and Expenditure (Bal. fig.)	2,198	Cash receipts	2,173
Balance c/d (31.12.18)	25	Balance c/d (31.12.18)	65
	2,268		2,268

(2) Competition Income

Stock balance b/d (1.1.18)	35	Cash receipts	228
Cash payments for prizes	110	Balance c/d (31.12.18)	20
Income and Expenditure (Bal. fig.)	103		
	248		248

(3) Bar Trading Account

Bar stocks balance b/d (1.1.18)	120	Payables for Bar supplies b/d	180
Payment for Bar supplies	2,081	Bar cash takings	2,510
Income and Expenditure (Bal. fig.)	409	Bar stocks c/d (31.12.18)	140
Payables for Bar supplies c/d	220		
	2,830		2,830

(4) Interest on Special Bank Deposit

On opening balance	(1,000 x 11.9%)	119
On additional deposit done 1.11.18 balance	(300 x 11.9% x 2÷12)	6
Total interest		125

Lusaka Pool Club Statement of Financial Position as at 31 December 2018

Assets	**K'000**	**K'000**
Non-current		
Furniture and Equipment (2,000 + 300 – 258)		2,042
Current Assets		
Inventory of Bar stocks	140	
Inventory of competition prizes	20	
Subscriptions in arrears	65	
Prepaid rates (3÷15 x 200)	40	
Special Bank deposit (1,000 + 300 + 125)	1,425	
Cash at Bank	506	2,196
Total Assets		4,238
Accumulated Fund and liabilities		
Accumulated fund		
Opening (1.1.2018) (w)		3,163
Surplus/deficit for the year ended 21.12.2018		820
Closing (31.12.2018)		3,983
Current liabilities		
Loan from Bayport	10	
Subscriptions in advance	25	
Payables for Bar supplies	220	255
Total Accumulated Fund and liabilities		4,238

<u>Working for Accumulated Fund</u>

Assets:	Furniture and equipment	2,000
	Special bank deposit	1,000
	Balance at bank	173
	Stocks of bar supplies	120
	Stocks of competition prizes	35

	Subscriptions in arrears	45	3,373
Liabilities:	Subscriptions in advance	30	
	Payables for Bar supplies	180	(210)
Opening Accumulated Fund			3,163

SOLUTION SIX

(A) Cash Account:

Credit entries	K
Cash deposit	118 300
Office expenses	3 250
Reimbursable repairs	6 000
Closing balance	21 400
Cash sales	148 950
Debit entries:	
Less: Opening balance	10 765
Cash sales	138 185

Bank Account:

Debit entries	K
Opening balance	23 420
Receipts	174 420
Total	197 840
Less: *Credit entries:*	
Payments	127 134
Closing balance	70 706

Note: This is an Incomplete Records question and so candidates are not expected to prepare detailed accounts or list entries as has been done above. They are expected to logically derive figures arithmetically and save time.

(B)

1. *Office expenses* (starting with amounts paid ending with the charge to P/L account): 9250-6000 (reimbursable)+4520+750+1054-670-724 = 8180
2. *Credit Sales* (from Trade Receivables account):
   22 870-2500 +3747-8950 = 15 167
3. Total sales = Credit sales + Cash sales: 15 167 +138 185 = 153 352
4. *Credit Purchases* (Trade Payables account):
   16 440 +2246-2355 = 16 331
5. *Profit on Disposal* Account (for old motor vehicle): 33 250 -30 000 = 3250
6. Calculation of *Depreciation* (of new Motor vehicle): (75 000 – 15 000)/8 yrs = 7 500

(C) JANE Statement of Profit or Loss & Other Comprehensive Income for Year to 30 June 2019

	K	K	K
Cash sales		138 185	
Credit sales		15 167	
Total sales			153 352
Opening inventory		24 500	
Purchases	16 331		
Import duty (25 809+12 904)	38 713		
Total		55 044	
		79 544	
Less: Closing Inventory(Last Bal figure)	16 703		
Drawings	1 500		
(Third 79 544 – 61 341)		(18 203)	
Cost of sales (second 153 352 – 92 011)			61 341
Gross Profit (First 60% x 153352)			92 011
INCOME			
Profit on disposal			3 250
Gross Profit			95 261
EXPENSES			
Office expenses		8 180	
Depreciation of Motor van		7 500	
Bank charges		365	
Total			16 045
Net profit			79 216

d) JANE Statement of Financial Position as at 30 June 2019

	K	K	K
Non current Assets:			
Motor Vehicles		75 000	
Allowance for depreciation		7 500	
Carrying Amount			67 500
Current Assets:			
Inventory		16 703	
Trade Receivables		3 747	
Other Receivables (reimbursable expense)		6 000	
Stationery		724	
Bank		70 706	
Cash		21 400	
			119 280
Total assets			186 780
Equity			
Capital at start		85 360	
add: Net profit		79 216	
		164 576	
Less: Drawings		1 500	
			163 076
Non current Liabilities:			
ASA Micro Finance loan	10 000 – 2 500		7 500
Current Liabilities:			
Trade Payables		2 246	
Electricity due		1 054	
Import duty due		12 904	
			16 204
Total liabilities			186 780

Calculation of Opening Capital:

Total Assets	98 385
Less: Liabilities (10 000+2 355+670)	13 025
Capital	85 360

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.2: BUSINESS STATISTICS

WEDNESDAY 12 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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 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 An Economist assesses the economic performance of organizations, households and the nation by obtaining various forms of data classified as continuous numerical variables or discreet variables. Which of the following can be classified as discrete data?

A. The units of an item in inventory
B. length of time before the first failure of a device
C. The average number of persons per household in a large community
D. Average annual income of employees in on organization (2 marks)

1.2 A financial service provider estimates the probabilities for the number of days required to complete a loan application (x) for customers who have no consistent salary and have no pay slips as shown in the table below:

Days (X)	1	2	3	4	5
P(X=x)	0.05	0.08	0.23	0.35	0.29

what is the probability $P(X > 2)$

A. 0.13
B. 0.08
C. 0.95
D. 0.87

(2 marks)

1.3 From the table of quarterly magazine sales given below, calculate the centered moving average (trend value) for the 4th quarter of 2014. (The figures are given in thousands of copies).

	2014	2015	2016	2017
1st quarter	112	132	144	160
2nd quarter	145	161	169	181
3rd quarter	164	180	196	208
4th quarter	123	135	143	155

A. 141
B. 143
C. 138.5
D. 147

(2 marks)

1.4 The scores of the mathematics examination results at ZICA for 12 students is as follows:

65	90	57	71	57	83	59	82	66	70	82	90

Calculate the mean score to the nearest whole number.

A. 872
B. 73
C. 82
D. 72

(2 marks)

1.5 In regression analysis, the variable that must be a random variable is:

A. The independent variable
B. The dependent variable
C. Both A and B
D. Neither variable need be a random variable

(2 marks)

1.6 If 75% of questionnaires distributed in a survey are completed and returned what is the chance that a questionnaire (chosen at random) is not returned?

A. 0.75

B. 0.25

C. 0.2625

D. 0.35

(2 marks)

1.7 Family income is normally distributed with mean K25,000 and variance 16000000. If the poverty level income is below K15,000, what percentage of the population lives in poverty?

A. 0.9938

B. 0.25

C. 0

D. 0.0062

(2 marks)

1.8 Given a sample of the salary (in Kwacha) structure of company A as follows: 5,000, 15,000, 25,000, 35,000, 45,000, and 55,000. Calculate the coefficient of variation.

A. 62.36%

B. 160.36%

C. 36%

D. 60%

(2 marks)

1.9 In regression analysis the coefficient of determination ranges:

A. Between 0 and 1

B. Between -1 and 0

C. Between -1 and 1

D. Greater than 0

(2 marks)

1.10 Which of the following is an example of quantitative data?

A. Gender

B. One's ethnic background

C. One's state of residence

D. Age

(2 marks)

[Total: 20 Marks]

SECTION B

Question Two in this Section is compulsory and must be attempted.

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

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

(a) A box contains 8 red, 5 white and 7 blue balls. Three are drawn at random without replacement. Find the following that:

- (i) All three are red
- (ii) All three are white
- (iii) Two red and one white
- (iv) At least one white

(12 marks)

(b) Draw a pie chart to illustrate the cost of producing a dress.

	Amount (Kwacha)
Material	50.4
Outdoor worker	37.8
Trimmings	7.0
Commission	5.6
Fixed expenses	18.2
Total	119.0

(8 marks)

[Total: 20 Marks]

QUESTION THREE

The sales manager of Shiwang'andu Ltd considers the modal value of his salesmen's weekly journeys would provide him the most useful average for budgeting purposes. The distribution is given below:

Kilometers travelled	Number of salesmen
50 and less 150	4
150 and less 250	6
250 and less 350	3
350 and less 450	9
450 and less 550	3

Find and interpret the following measures:

(a) Mean (6 marks)

(b) Standard deviation (4 marks)

(c) Mode (4 marks)

(d) Median (3 marks)

(e) Coefficient of Variation (3 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) A small bank has 1000 customers having both checking and savings accounts. The customers are categorised according to their average monthly account balances as follows:

Savings account

Checking accounts		Under K1000	K1000 or more
		$\bar{A}$	A
Under K500	$\bar{B}$	300	400
K500 or more	B	200	100

Let A denote the set of people with savings of K1000 or more and B denote the set of people with checking accounts of K500 or more. If a person is selected at random, find the following:

(i) P(A) (2 marks)

(ii) P(B) (2 marks)

(iii) P(A ∩B) (2 marks)

(iv) P(A∪B) (2 marks)

(vi) P(A/B) (2 marks)

(vii) P($\bar{A} \cup \bar{B}$) (2 marks)

(b) The components of a time series combine to produce a variable in two ways, Additive and Multiplicative models. The table below shows the output at a factory which appears to vary with the day of the week. The past three weeks output (thousand units) was as follows:

	Week 1	**Week 2**	**Week 3**
Monday	80	82	84
Tuesday	104	110	116
Wednesday	94	97	100
Thursday	120	125	130
Friday	62	64	66

Find the seasonal variation for each of the 15 days. (use 5 day moving average)

(8 marks)

[Total: 20 Marks]

QUESTION FIVE

The table below shows the amount in kwacha for weekly consumption expenditure (y) and the disposable income (x) of eight families.

Disposable Income (x)	50	80	140	70	100	130	115	140
Consumption expenditure (y)	140	70	145	40	55	110	115	120

(a) Plot the scatter plot of the data in the table above. (3 marks)

(b) Write down the least squares regression equation suitable for this data. (11 marks)

(c) Find the consumption expenditure when the disposable income is K250 (2 marks)

(d) Calculate the correlation coefficient and interpret the result. (4 marks)

[Total: 20 Marks]

QUESTION SIX

(a) The dean of college of arts and sciences is undertaking a study to see if grades are being inflated in various academic departments. The dean obtains the following data on the grades of 500 students in three courses:

Grade	Physics	Economics	Math	Total
A	70	70	65	205
B	45	95	75	215
C or less	10	20	50	80
Total	125	185	190	500

Suppose one of the 500 students is chosen randomly. Find the following probabilities:

(i) The student got an A. (1 mark)
(ii) The student got B or less. (2 marks)
(iii) The student is in physics. (1 mark)
(iv) $P(A|math)$. (2 marks)
(v) $P(Economics|B)$. (2 marks)
(vi) $P(Physics|Bor\ less)$. (2 marks)

(b) During the last year at Food lover's shop, the amount of time (in minutes) customers took to complete eating lunch after being seated and served was normally distributed with mean 24 and standard deviation 4. A customer is randomly selected. When eating lunch, what percentage of customers require the following amounts of time?

(i) Less than 18 minutes. (2 marks)
(ii) More than 12 minutes. (2 marks)
(iii) Between 14 and 16 minutes. (2 marks)
(iv) Assuming the percentage of time customers took was 5%. What is the amount of time required to complete lunch? (4 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.2 SOLUTIONS

SECTION A

1.1 **C**

1.2 **D** $P(X > 2) = P(3) + P(4) + P(5)$ =0.23+0.35+0.29=0.87

$$the\ correct\ answer\ is\ D$$

1.3 **B**;

Year	Quarter	Sales(X)	4 – point MA	4 - CMA
2014	1	112		
	2	145		
			136	
	3	164		138.5
			141	
	4	123		143
			145	
2015	1	132		
	2	161		

1.4 **B**;

$$\bar{x} = \frac{872}{12} = 72.67 \approx 73$$

1.5 **A** the dependent variable

1.6 **B**; $P(return) = \frac{75}{100} = 0.75(75\%)$, $P(not\ return) = 1 - P(return)$

1.7 **D**;

1.8 **A**; $\sum x^2 = 7150000000$, $\sum x = 180000$, $n = 6$, $\bar{x} = 30000$, $S = 18708.28693$, $CV = \frac{S}{\bar{x}} \times 100 \frac{18708.28693}{30000} \approx 62.36\%$

1.9 **A**

1.10 **D**; Age is a quantitative data

SECTION B

SOLUTION TWO

(a)

(i) All three red

$P(RRR) = \frac{8}{20} \times \frac{7}{19} \times \frac{6}{18} = \frac{336}{6840} \approx 0.0491$

(ii) All three white

$$P(WWW) = \frac{5}{20} \times \frac{4}{19} \times \frac{3}{18} = \frac{60}{6840} \approx 0.00877$$

(i) two red and one white

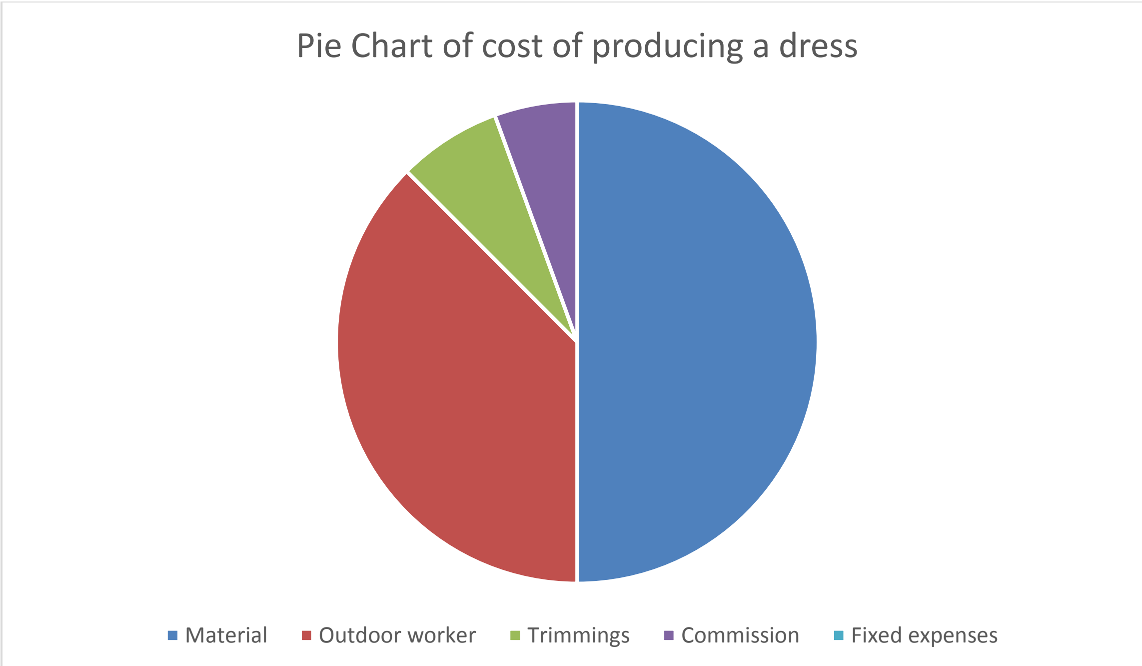
$$P(RWR) + P(WRR) = \frac{8}{20} \times \frac{5}{19} \times \frac{7}{18} + \frac{5}{20} \times \frac{8}{19} \times \frac{7}{18} = \frac{60}{6840} \approx 0.0819$$

(ii) at least one white

Using the complement we have $1 - P(zero\ white) = 1 - \frac{2506}{6840} \approx 1 - 0{,}3664 = 0.6336$

(b)

Category	Calculations	Slice of a pie
Material	$\frac{50.4}{119} \times 360$	152.5°
Outdoor worker	$\frac{37.8}{119} \times 360$	114.4°
Trimmings	$\frac{7.0}{119} \times 360$	21.2°
Commission	$\frac{5.6}{119} \times 360$	16.9°
Fixed expenses	$\frac{18.}{119} \times 360$	55.1°


Pie Chart of cost of producing a dress
Material
Outdoor worker
Trimmings
Commission
Fixed expenses

SOLUTION THREE

Class interval	x	f	xf	x^2f	Cumulative f
50 and less 150	100	4	400	40 000	4
150 and less 250	200	6	1200	240 000	10
250 and less 350	300	3	900	270 000	13
350 and less 450	400	9	3600	1 440 000	22
450 and less 550	500	3	1500	750 000	25
Total			7 600	2 740 000	

(i) Mean $\bar{x} = \frac{1}{n}\sum x = \frac{1}{25}$ (7600)=304

The average of weekly journeys is 304 kilometers.

(ii) Standard deviation

$$\sigma^2 = \frac{2740000 - \frac{(7600)^2}{25}}{25} = \frac{429600}{25} = 17184$$

Therefore the standard deviation is $\sigma = \sqrt{17184} \approx 131.09$km

(iii) The most frequently occurring group is 350 to 450 and so the mode is in this class,

$$= 350 + \frac{(9-3)}{2(9)-3-3} \times (100) = 350 + 50 = \mathbf{400}$$

The most frequently attained distance covered in a one week journey was 400 kilometers.

(iv) Median Md= $l_k + \frac{w}{f_k}\left(\frac{f}{2} - CF_{k-1}\right)$

$$k = 3$$

$$Md = 250 + \frac{100}{3}\left(\frac{25}{2} - 10\right) = 250 + 83.33 = 333.33\ km$$

(v) Coefficient of variation

$CV = \frac{s}{\mu} = \frac{131.09}{304} = 0.43$ = 43%

The coefficient of variation is a standardized measure of the variability obtained by expressing the standard deviation relative to the mean value. It is expressed as a percentage and as no unit which makes it easy to compare different data sets.

SOLUTION 4

(a)

Checking accounts		Under K1000	K1000 or more	
		$\bar{A}$	A	TOTAL
Under K500	$\bar{B}$	300	400	700
K500 or more	B	200	100	300
	TOTAL	500	500	1000

(i) $P(A) = \frac{500}{1000} = 0.5$

(ii) $P(B) = \frac{300}{1000} = 0.3$

(iii) $P(A \cap B) = \frac{100}{1000} = 0.1$

(iv) $P(A \cup B) = P(A) + P(B) - P(A \cap B)$
$= 0.5 + 0.3 - 0.1$
$= 0.7$

(v) $P(A/B) = \frac{P(A \cap B)}{P(B)}$
$= \frac{0.1}{0.3} = 0.3333$

(vi) $P(\bar{A} \cup \bar{B}) = P(\bar{A}) + P(\bar{B}) - P(\bar{A} \cap \bar{B})$
$= \frac{500}{1000} + \frac{500}{1000} - \frac{300}{1000}$
$= 0.7$

b) Variation may be found using the additive model or the multiplicative model
The multiplicative model is $Y = T \times S \times R$
SEASONAL VARIATION $S = Y/T$

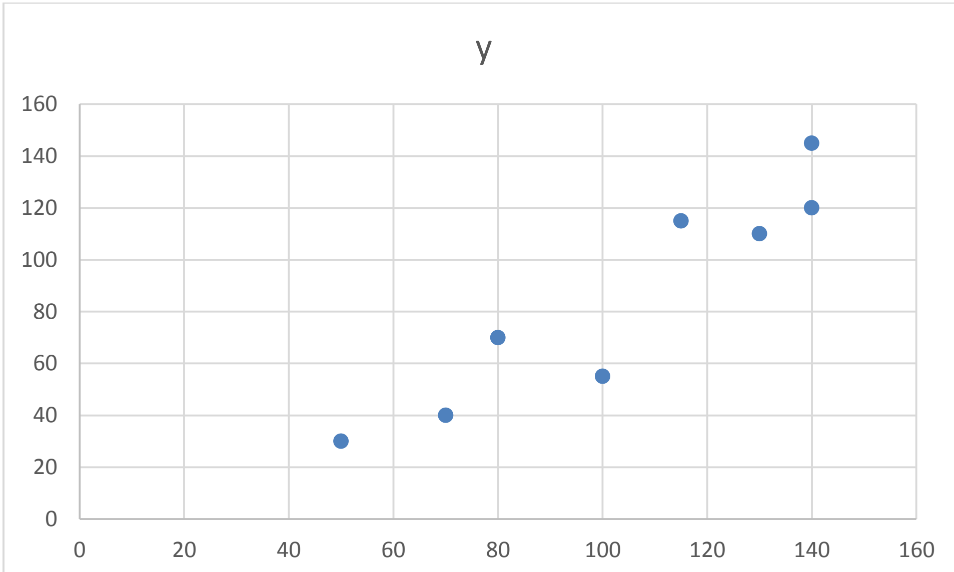
		Actual (Y)	Moving totals Of five days' output	Trend (T)	Seasonal Variation S=(Y/T)
Week 1	Monday	80			
	Tuesday	108			
	Wednesday	94	460	92.0	1.022
	Thursday	120	462	92.4	1.299
	Friday	62	468	93.6	0.662
Week 2	Monday	82	471	94.2	0.870
	Tuesday	110	476	95.2	1.155

	Wednesday	97	478	95.6	1.015
	Thursday	125	480	96.0	1.302
	Friday	64	486	97.2	0.658
Week 3	Monday	84	489	97.8	0.859
	Tuesday	116	494	98.8	1.174
	Wednesday	100	496	99.2	1.008
	Thursday	130			
	Friday	66			

If the candidate uses additive model to find seasonal variation the $S = Y - T$ should be considered.

SOLUTION FIVE

(a)



(b)

x	y	x^2	y^2	xy
50	140	2500	19600	7000
80	70	6400	4900	5600
140	145	19600	21025	20300
70	40	4900	1600	2800
100	55	1000	3025	5500
130	110	16900	12100	14300
115	115	13225	13225	13225
140	120	19600	14400	16800
$\sum x = 825$	$\sum y = 795$	$\sum x^2 = 93125$	$\sum y^2 = 89875$	$\sum xy = 85525$

$$b = \frac{85525 - \frac{(825)(795)}{8}}{93125 - \frac{(825)^2}{8}}$$

$$= \frac{3540.625}{8046.875}$$

$= 0.44$

$a = \frac{795}{8} - (0.44)\left(\frac{825}{8}\right)$

$= 54$

Therefore the required answer is $\hat{y} = 54 + 0.44x$

(c) Note: award marks for correct use of their sums in the expression for a and b.

$$\hat{y} = 54 + 0.44(250) = K164$$

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

$$= \frac{8(80025) - (825)(685)}{\sqrt{[8(93125) - 825^2][8(71175) - 685^2]}}$$

$$\boldsymbol{= = \frac{75075}{\sqrt{64375 \times 100175}} = \frac{75075}{80304.207} = 0.935}$$

SOLUTION 6

(i) $P(A\ student\ got\ an\ A) = \frac{205}{500} = 0.41$

(ii) $P(A\ student\ got\ B\ or\ less) = P(A\ student\ got\ a\ B) + P(A\ student\ got\ Cor\ less)$
= 215/500 +80/500 = 295/500 =0.59

(iii) $P(A\ student\ is\ in\ Physics\ ) = \frac{125}{500} = 0.25$

(iv) $P(A|Math) = \frac{65}{190} \approx 0.3421$

(v) $P(economics|B) = \frac{95}{215} \approx 0.4419$

(vi) $P(Physics|B\ or\ less) = \frac{45+10}{215+80} = \frac{55}{295} \approx 0.1864$

(b) Normal distribution with mean $\mu = 24$ and standard deviation $\sigma = 4$
(i)

$P(less\ than\ 18\ minutes) = P\left(Z < \frac{18-24}{4}\right) = P(Z < -1.5) = 0.5 - 0.4332 = 0.0668$ =6.68 %

P(x>12) = 0.5 + 12-24/4 = 0.5 + -12/4 = 0.5 + -3.00 = 0.5 + 0.4987 = 0.9987 = 99.87 %

(ii)

$$P(less\ than\ 18\ minutes) = P\left(\frac{14-24}{4} < Z < \frac{16-24}{4}\right) = P(-2.5 < Z < -2)$$

$$= 0.4938 - 0.4772 = 0.0166$$ =1.66 %

Assuming the percentage of time customers took was 5%, then

$$-1.65 = \frac{X-24}{4}$$

$$X = 24 - 4(1.65) = 17.4$$

Therefore, it will take approximately 17.4 minutes to complete lunch.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.3: BUSINESS ECONOMICS

TUESDAY 11 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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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.

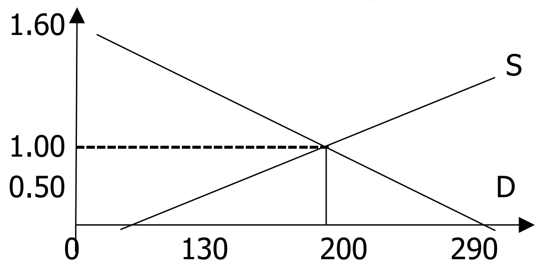
SECTION A – (COMPULSORY)

Attempt all Ten (10) multiple choice questions.

<u>QUESTION ONE</u>

Each of the following questions has only one 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 Refer to the table in the diagram below:



A surplus of 160 units would be encountered if price was…………………..

A. K1.05
B. K1.60
C. K1.00
D. K0.50

(2 marks)

1.2 Which of the following is a barrier to entry in an industry?

A. Economies of scale
B. Allocative efficiency
C. Profit maximization
D. Economic profits

(2 marks)

1.3 One of the features of monopoly is that the demand curve……………………………

A. Is vertical
B. Is horizontal
C. Slopes upward
D. Slopes downward

(2 marks)

1.4 Which of the following is NOT commonly offered as a reason to support protectionism?

i. Trade destroys jobs
ii. Industries threatened with competition may be vital to national security
iii. New industries need trade restrictions to help them get started
iv. Some countries unfairly subsidize their firms, so competition is unfair
v. Promoting specialization and increasing worldwide production levels

A. i. and ii.
B. i. and v.
C. ii. and iv.
D. i., ii., iii., iv. and v.

(2 marks)

1.5 A market for pollution can be expected to……………………………………………

A. Eliminate pollution
B. Produce a shortage of pollution
C. Encourage polluters to increase emissions
D. Provide potential polluters with monetary incentive to reduce emissions

(2 marks)

1.6 Which of the following best describes ability-to-pay canon of taxation?

A. Taxes on rental income
B. Progressive income tax
C. Regressive tax on paraffin
D. Excise tax on cigarettes

(2 marks)

1.7 Which phase of the business cycle would be most closely associated with an economic contraction?

A. Peak
B. Depression
C. Recession
D. Recovery

(2 marks)

1.8 South People's Republic is a newly established country with a population of 20 million coupled with a labour force of 10 million of which 8.5 million are employed. What is the unemployment rate in this country?

A. 50%
B. 85%
C. 15%
D. 7.5%

(2 marks)

1.9 Dumping is the sale of a product in another country……………………………….

A. At a price below its domestic price or cost of production.
B. That does not meet the quality standards in the domestic market.
C. Is encouraged by Voluntary Export Restraints.
D. Throwing of garbage illegally in another country.

(2 marks)

1.10 Which of the following statements is NOT correct?

A. Where marginal product is greater than average product, average product is rising.
B. Where total product is at a maximum, average product is also at a maximum.
C. Where marginal product is zero, total product is at a maximum.
D. Marginal product becomes negative before average product becomes negative.

(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).

QUESTION TWO - (COMPULSORY QUESTION)

A market can be defined as a situation in which potential buyers and potential sellers of a good come together for the purpose of exchange. Prices play a vital role in market economies because they bring the market into equilibrium. If the price is different from its equilibrium level, quantity supplied and quantity demanded are not equal. The resulting excess supply or excess demand leads to suppliers adjusting the price until equilibrium is restored. Prices thus serve as a signal that guide economic decisions and allocate scarce resources. However, this power of price is lost when the government intervenes in the market using price control, i.e. price ceilings and price floors.

(a) Define the term equilibrium in economics (2 marks)

(b) Given the following:

Demand Function: $Q_d = 20\ 000 - 90P$

Supply Function: $Q_s = 10\ 000 + 110P$

(i) Find the equilibrium price and equilibrium quantity. (2 marks)

(ii) Suppose the government imposes a price ceiling of K40 per unit. Calculate the new equilibrium price and quantity and explain the implications of this ceiling. (4 marks)

(c) Explain any four (4) factors that affect demand. (8 marks)

(d) Distinguish between 'change in demand' and 'change in quantity demanded'. (4 marks)

[Total: 20 marks]

QUESTION THREE

The ICT sector is one of the most dynamic economic segments globally. Given its dynamism, it is being considered as an enabler of growth in almost all countries, Zambia included. Over the years, the sector has become increasingly important in supporting growth as governments and enterprises go digital in an attempt to increase their market size while cutting operational costs.

Zambia's ICT sector is dominated by the service providers with other components playing a relatively smaller role. The telecommunication sector is among the service providers that have dominated the ICT sector in Zambia with its performance in terms of competition, profitability and market penetration increasing over the years.

Required:

(a) From your economic knowledge of market structures, under which market structure does the telecommunication sector in Zambia fall? (1 mark)

(b) Outline any five (5) features of the market structure you have stated in (a) above. (10 marks)

(c) Explain price determination in this industry. (3 marks)

(d) Describe the three (3) fundamental economic problems faced by firms under the telecommunication sector and how these problems are solved. (6 marks)

[Total: 20 marks]

QUESTION FOUR

(a) From the data below calculate the gross value added at basic prices formerly called GDP at factor cost, using the expenditure approach.

Items	**Km**
Imports	68,000
Exports	75,000
Value of physical increase in stocks	8,800
Capital formation	50,000
Government expenditure	85,000
Consumer expenditure	115,000
Taxes on expenditure	35,000
Subsidies	25,000
Net property income from abroad	3,000

(10 marks)

(b) Using the data in (a) above, explain the three (3) approaches that Zambia uses to measure National Income. (6 marks)

(c) Explain why poverty levels in a country may be increasing amidst an increase in national income. (4 marks)

[Total: 20 marks]

QUESTION FIVE

On any given day individuals and businesses interact with financial intermediaries to either lend or borrow money or indeed in search of various financial products which are essential to the normal functioning of the monetary economy. Indeed their role in the Zambian economy cannot be overemphasised. Financial intermediaries are financial institutions which channel funds from institutions and individuals who have a financial surplus to institutions and individuals who wish to borrow funds. They thus intermediate between lenders and borrowers, earning their profits from the difference in the rate of interest paid to depositors and the rate of interest charged to borrowers. The main financial intermediaries are the banks, but also include mutual funds, credit associations, insurance companies and pension funds.

(a) Describe any five (5) functions of 'financial intermediaries' . (10 marks)

(b) Explain any five (5) reasons why these functions are important to the business sector in Zambia. (10 marks)

[Total: 20 Marks]

QUESTION SIX

One of the most pressing choices facing modern economies is whether to adopt a policy of free trade or protectionism, that is, whether to encourage foreign goods into the country with minimum tariffs and allow industries to relocate abroad; or whether to make it hard for foreign firms to sell their goods internally and discourage domestic producers tempted by cheaper wages in other lands. On one hand, the proponents of free international trade argue that liberalization of trading relationships between rich and poor countries would work toward the long-run benefit of all countries. On the other hand, the proponents of trade protectionism argue that protectionist policies provide competitive advantage and create jobs.

(a) Explain any three (3) ways in which free trade benefits countries such as Zambia. (6 marks)

(b) Explain any three (3) demerits of engaging in free international trade. (6 marks)

(c) State four (4) tools that can be used to effect trade protectionist policies. (2 marks)

(d) Briefly explain any three (3) disadvantages of trade protectionism. (6 marks)

[Total: 20 marks]

END OF PAPER

CA 1.3 SUGGESTED SOLUTIONS

SECTION A: MULTIPLE CHOICE

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

SECTION B

SOLUTION TWO (COMPULSORY)

a) Equilibrium is a point where demand is equal to supply. It is a point where the quantity demanded is the same as the quantity supplied.

b) (i) At equilibrium $Q_d = Q_{s,}$ that is, 20 000 – 90P = 10 000 + 110P then solving for P and substituting the value for P to find Q.

   20 000 – 90P = 10 000 + 110P

   20 000 -10 000 = 110P + 90P

   10 000 = 200P

   P = **K50**

   Using Q_s = 10 000 + 110P, we have Q_s = 10 000 + (110 x 50) = **15 500 units**

   (ii) A price ceiling of K40 per unit levied by the government affects the quantity demanded. Q_d = 20 000 – (90 x 40) = 16 400, Q_s = 10 000 + (110 x 40) = **14 400**. There is a shortage in the market of 2000 units of the product. The policy reduces the number of people who buy the product, since supply is lower because of lower price.

c) The following are the factors that affect demand for a good (X):

- The price of a good (X). The higher the price, the lower the quantity demanded and the reverse is true, if the price of a good drops, the demand for it would increase.
- Price of substitute products. When the price of substitutes, such as Y and Z, were to reduce or increase, the demand for X would decrease or increase respectively.
- Consumer's income. When consumer's income increase, the demand for X would increase and vice versa, assuming X is a normal good.
- Consumer's tastes and preferences. When particular goods are preferred by consumers, their demand tends to go up.
- Expected future prices. If prices are expected to go up in the future, the demand for goods will go up now, to avoid high prices in the future. The opposite is also true.

d) A change in demand is either an increase or decrease in demand. It's either a leftward or rightward shift of a demand curve. It is caused by changes in any factors affecting demand other than own price. It's also called a shift in a demand curve. A change in quantity demanded, on the other hand, is called a movement along a demand curve. It is caused by a change in own price of the good. There is only one demand curve.

SOLUTION THREE

(a) Oligopoly

(b) Any four of the following:

- Few large firms;
- Kinked demand curve;
- Firms have the ability to set the price;
- High barriers to entry or exit;
- Firms sell either homogenous or differentiated products;
- Interdependence of firms.

(c) Kinked demand curve

Firms are interdependent on each other. Therefore, when one firm reduces the price of its good, other firms follow suit to avoid losing market share. However, when one firm increases the price of its good, other firms do not follow suit. the end result is a kinked demand curve.

(d) **i) What telecom services to offer** – Due to scarcity of resources and unlimited wants, telecommunication firms cannot offer all the services they wish to, instead they decide what to offer on the basis of the availability of people who are willing and able to pay for them; **ii) How to offer telecom services** – firms choose the least cost methods of offering telecom services whilst retaining the quality of services being offered. For the telecom sector, methods of offering services are normally capital-intensive **iii) Who to offer the services** – telecom firms decide how to distribute their services i.e. which section of society gets how much of a given service. This is done through price and non-price competition. This is where price discrimination can be used to carter for the needs of various sections of society.

SOLUTION FOUR

a) Gross value added at basic prices (formerly gross domestic product at factor cost) can be calculated as follows.

	Km
Consumers' expenditure	115,000
Government current expenditure on goods and services	85,000
Gross capital formation at home	50,000
Increase in stocks	8,800
Total domestic expenditure at market prices	**258,800**
Plus exports	75,000
Less imports	(68,000)
Gross domestic product at market prices	**265,800**
Less indirect taxes	(35,000)
Plus subsidies	25,000
Gross value added at basic prices (GDP at factor cost)	**255,800**

b) Three sets of statistics can be used to calculate GNP:

- **The expenditure approach** is calculated by measuring the total *expenditure* in the economy by households, firms and the government. This figure is adjusted to take into account imports and exports: exports are merely expenditure in the economy by foreign consumers, and imports can best be considered as negative exports. Income from property abroad refers to rewards paid by foreigners to domestic households for the use of domestic factors of production.

  Expenditure-based GNP measures what the spending agents in the economy have paid out for the goods and services they have consumed; consequently, since goods and services are sold to spending agents gross of indirect taxes, expenditure-based GNP will include an indirect tax element. To make expenditure-based GNP comparable to other methods of GNP calculation, it is necessary to adjust the figures to remove the indirect tax element (and also, conversely, any element of subsidy). With-tax GNP is known as GNP at market prices and GNP net of tax as GNP at factor cost (i.e. GNP adjusted to represent that portion of expenditure received by firms).
- **The income approach** is calculated by measuring the total income received by households and firms. Since all expenditure in an economy which does not go out to pay for imports must be received by participants in that economy, income based GNP should have the same value as expenditure based GNP. There is no need to adjust income based GNP for indirect taxes and subsidies since the government will already have collected its indirect taxes from

expenditure before it is received by households and firms as income. Imports can be wholly ignored since income cannot naturally include monies paid out to foreign countries (and expenditure based GNP takes imports out of consideration by deducting them from exports).

- **The output approach** is calculated by measuring the output from firms in the economy. Since expenditure in the economy less any amounts spent on imports and to pay indirect taxes must be paid to firms in exchange for goods, we would expect the total amounts of goods sold to be equal to expenditure based GNP except for the fact that the latter also takes into account income from property abroad.

c) A country's national income may be increasing while poverty levels may be increasing as well. This is happened in Zambia in the past few years where GDP increased at an average rate of 6% annually meanwhile the poverty levels were on the increase as well. This is because GDP does not take into account how income is distributed. The increase in GDP may fall into the minority while the majority will be wallowing in abject poverty. This is the reason why another measure such as the Human Development Index (HDI) is more appropriate than GDP in understanding poverty.

SOLUTION FIVE

a) The main functions of financial intermediaries are:

- **Encourage savings**: they are a safe and convenient place for savers to put money and to get a return.
- **Provide lending and credit**: borrowers can obtain credit to finance investment, homebuilding, and consumption.
- **Aggregation**: a financial intermediary can parcel up the small savings balances of many households and make them into larger loans, perhaps to business.
- **Maturity transformation**: individual households and firms may deposit their funds for only a few weeks which would be too short a time to make into a loan. However a financial intermediary will have a constant flow of short term deposits and therefore can lend for a longer time because if one depositor spends or withdraws their money there is a good chance the person receiving it will deposit it back into the same institution.
- **Risk transformation:** financial intermediaries will use expert knowledge and will invest funds widely in lots of investments. This spreads and manages risks.
- **Security of lender's capital**: Provided that the financial intermediary is itself financially sound, the lender or depositor's money will be very safe regardless of the losses incurred by the financial intermediary in its re-lending activities.

b) Financial intermediaries assist the business sector in a number of ways:

- **Provide funds to firms for investment**: banks and financial markets like stock exchanges and bond markets are places that businesses can raise finance. Firms can borrow by taking up loans and overdrafts, and also by selling financial assets such as shares, or bonds to these institutions. The funds that firms raise are used to build production capacity which increases aggregate supply and employment.
- **Provide a Place to deposit surplus funds securely**: firms frequently have excess funds. Banks provide safe places to keep these and gain some interest. Firms can also but financial assets such as bills or bonds from intermediaries and, when they need cash, sell them quickly and simply.
- **Credit to households**: business depends on strong demand from the household sector. This may be for large purchases such as homes, or smaller items such as durables. Often these are bought using credit provided by intermediaries.

- **Enable effective regulation:** financial intermediaries are regulated because of their importance and the need to retain the confidence of borrows and lenders. These regulations often come voluntarily from the intermediaries themselves, such as market listing rules of a stock exchange, or may come from governments. This encourages the circulation of wealth and the development of the economy.
- **Focus for government policy**: governments will seek to manipulate the behaviour of intermediaries to influence the behaviour of the economy. Examples include the manipulation of interest rates, exchange rates and the levels of bank lending.

SOLUTION SIX

(a) **Increased competition** – Free international trade implies that domestic firms will face increased competition which will reduce inefficiencies in production and offering of goods and services thus lowering prices.

Availability of a variety of goods and services to consumers – Due to imports, countries have access to a variety of high quality products and services which they would otherwise not have.

Boosts a country's foreign currency earnings – Given that countries are able to export their surplus products and/or services with little to no trade barriers, foreign currency earnings are boosted.

Technological transfer is facilitated

Improved quality of goods

(b) **Crowding-out of home infant industries** – due too fierce competition from international firms, home industries especially infant industries are likely to be driven out of business.

Dumping – international firms that enjoy economies of scale in most cases sell their products at a cheaper price in other countries than their home markets which negatively affects producers in recipient markets.

Environmental degradation – as firms try to become competitive in international markets, they can adopt production processes and methods that are harmful to the environment.

Security threat

(c) i) Tariffs; ii) Import quotas; iii) Product standards control; iv) Government subsidies; v) Import duties.

(d) i) **Consumers pay more for goods and services with protectionism** – Without a system of competitive pricing, domestic companies are free to raise their prices without raising the quality of their goods and consumers are left without options but to buy expensive products and services; ii) Protectionism can lead to **retaliation** from other nations, ruining vital relationships between nations; iii) **Businesses suffer from protectionism** – Government support often builds corporate contentment, which could lead to a business to believe that it has a pleasant safety net set up behind it in the event of strong foreign competition as these businesses might not have the resources necessary to survive on their own.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 14 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SSECTION A – (COMPULSORY)

Attempt all Ten (10) multiple choice questions.

QUESTION ONE

Each of the following questions has only one 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 is not a source of law in Zambia?
- A. Customary law
- B. Statutes
- C. By-laws
- D. Government Reports

(2 marks)

1.2 Which one correctly represents the superiority of the law in Zambia?
- A. The constitution is subject to other laws
- B. All laws in the country are the same
- C. Laws made by parliament are more superior to all other laws
- D. Constitution is supreme law in Zambia

(2 marks)

1.3 Which one properly distinguishes criminal and civil law?
- A. Criminal law concerns itself with punishment and compensation for civil
- B. Liability for both is determined by the penal code
- C. There is no difference between the two
- D. All the above

(2 marks)

1.4 Which is correct about law of contract and law of torts?
- A. They are both dealt with under penal laws
- B. They are both meant to punish people for acting wrongly
- C. They are branches of public law
- D. They both compensate for damage suffered.

(2 marks)

1.5 Which one correctly describes the principle in the law of contract?
- A. It is meant to enrich the aggrieved party
- B. Aggrieved party is taken where performance of contract would have

C. It takes aggrieved party to their original position before breach
D. It prevents damage from happening (2 marks)

1.6 Which one correctly represents the principle of damages in tort?

A. The aggrieved must always be better off than before
B. It restores the claimant to their original position
C. The defendant is punished for the tort committed
D. None of the above

(2 marks)

1.7 Which one correctly describes a valid contract?

A. An agreement, consideration and execution
B. Invitation to treat, acceptance and consideration
C. Offer, consideration and execution
D. Offer, acceptance, intention to create legal relation and consideration

(2 marks)

1.8 What is a voidable contract?

A. When there is a breach
B. Misrepresentation of facts
C. Insufficient consideration
D. All the above

(2 marks)

1.9 A contract is void when there is?

A. Illegality of contract
B. Incapacity of parties to contract
C. Unfair terms of contract
D. None of the above

(2 marks)

1.10 Which of the elements constitute negligence in tort?

A. Breach of an agreement and damage
B. Causation, remoteness and damage
C. Duty, breach of duty and compensation
D. Duty, breach and damage

(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.

QUESTION TWO

(a) The Power Energy Drink Company advertised in the Mast on the 14 of March in 2019 that their drink was a cure for impotence and could give men power to boost their immune system.

The Power Energy Drink Company was so confident of the usefulness of their energy drink and its ability not only to cure impotence patients but also to improve fully the immune system in male persons. The company in its advert, advertised that if any impotent male used the energy drink for 6 months 3 times a day but still have the impotence problem afterwards, that person would be entitled to claim ZMK 30,000.00 from the company.

The advertisement went on to say that the Company had deposited the ZMK 3,000,000.00 in Zambia National Commercial Bank (ZANACO) in the event of any claims.

Nachula Saana, a male aged 27 years, with an impotence level of 60 % and married for 15 years without children, saw the advertisement and decided to buy 14 cases of power energy drink to complete the 6 months prescription. Nachula used it exactly as advised in the prescription. After 6 months, he checked his impotence levels which to his surprise actually had increased to 87 %. He was very heartbroken.

Remembering what the advert said, Nachula Saana approached the Company to claim the said ZMK30,000.00, as advertised the Company refused to give him the said amount stating that there was no contract as there was no offer, acceptance and consideration to mention but a few.

Nachula Saana has approached you knowing that you are vested with the law to advise him before going to court.

Required:

Explain to Nachula Saana if there is a valid contract. (10 marks)

(b) Five years after Power Energy Drink Company was sued by Nachula Saana, the company has been going through financial difficulties. The company has been advised to simply wind up and the shareholders do not understand what that means.

The director of Power Energy Drink Company also does not really understand the aspect of winding up and how it should proceed. He privately approaches you knowing that you completed your commercial and corporate law course.

Explain to the director the types of winding up so as to help him make a decisive decision for the company. (10 marks)

[Total: 20 Marks]

QUESTION THREE

Malema and Kakwende are Managers in a renowned and prestigious establishment which is partly State owned, and whose other stakes are publicly owned. The two have been managing the company from the time that they were young men and are now nearing the retirement age. Upon retiring, the two intend on coming up with a multi-national company involved in Gemstone dealing across the globe, employing a workforce of not less than five thousand workers on both contracts for, and of service.

In view of the lucrative nature of the business they would like to go into, they require colossal sums of money, and have since approached a tycoon from the Copperbelt who runs an informal mineral trade company, as he does not believe in corporate governance, the Tycoon has agreed to fund them, but on condition that the two satisfy him as to their duties as Directors of the company they intend forming.

The two have also been informed that as Directors of the company they intend on forming, they may be liable under both criminal and civil law, should they misappropriate or mismanage the affairs and/or funds of the company.

Malema and Kakwende have since approached you for advice.

Required:

(a) Explain to them five (5) duties of a Company Director. (15 marks)

(b) Discuss the difference between a contract of service and one for services.

(3 marks)

(c) Distinguish criminal law from civil law. (2 marks)

[Total: 20 Marks]

QUESTION FOUR

Sacha Chipompo is a third year intern at Grey Musukwa Limited, he had been instructed by his Supervisor to conduct a research on company meetings and resolutions as the company would like to conduct routine meeting for purposes of tracking progress.

Sacha has been informed by his Boss that the companies financial are not looking too good and that the company's balance sheet is literally limping and that as such, the research is needed as a matter of urgency, since top management is planning on dismissing erring employees who will be found wanting with regard to failure to account, and to declare redundant those whose jobs have been overtaken by technological advancements.

Sacha in his research has since come across a number of statutory provisions on Dismissal and Redundancy but is uncertain as to whether he should interpret them literally or go any further.

Overwhelmed by his workload, Sacha Chipompo has now come to you for help.

Required:

(a) Describe *'meetings'* with regard to companies. (4 marks)

(b) State three (3) types of meetings. (3 marks)

(c) State three (3) types of resolutions that can be passed at company meetings. (3 marks)

(d) Discuss briefly the following:

(i) Dismissal (3 marks)

(ii) Redundancy (3 marks)

(e) Explain the *'Literal Rule'* of interpretation. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

Chushi is an entrepreneur who has a hobby of establishing companies. He prefers to establish companies where he and his wife are the only sponsors and have the companies incorporated as he says it is easier to make decisions and grow the company where there are fewer shareholders. He has set up and incorporated Chushi Investments Ltd and as a means of expanding the company, borrowed K500,000 from Bank of Lusaka. The company has however, been struggling to pull through in the business that it started defaulting in repayment of the loan to Bank of Lusaka. Bank of Lusaka is concerned that if the situation continues, they may lose their money borrowed by Chushi Investments Ltd. They would like to recover their money while Chushi still has some assets which they may sale in an event that Chushi collapsed. The situation at Chushi investments however, deteriorated and Bank of Lusaka would like to have Chushi Investment declared insolvent so it can be placed under receivership and be paid the monies owed to them following the sale of Chushi's assets. It has however been established that Chushi Investments only has assets amounting to K250,000 but are still owing Bank of Lusaka K900,000. The receivers appointed to liquidate Chushi Investments have demanded from Chushi title deeds to their dwelling house worth K500,000 which they would like to sale and recover the money for Bank of Lusaka.

You are lawyers for Chushi Investments Ltd and they have approached you, advise them on the following:

Required:

(a) Whether Bank of Lusaka has any right to demand for the winding up of Chushi Investments Ltd. (5 marks)

(b) Define a receiver. (2 marks)

(c) State the powers the receiver has in the above matter. (5 marks)

(d) Explain whether it is legal for the Liquidator to sell property which belongs to Chushi family. (8 marks)

[Total: 20 Marks]

QUESTION SIX

(a) Jose, Beatrice, Buchiwe and Karen are partners trading under the name Jobebu Enterprises. They had their Partnership Deed prepared by Kawilo a law student who dropped out of the University of ZICA last year. Notwithstanding the same, the partnership deed was prepared fairly well though with notable problems which were ignored.

After 5 years of business, Karen died in a road traffic accident while she was coming from Nakonde for a business deal which she had signed.

After the burial, the remaining partners had several issues and questions which they wanted resolved.

Required:

(i) Explain to the remaining partners on any five (5) ways in which a partnership can be dissolved. (10 marks)

(ii) Discuss on whether the firm is liable under the contract that Karen signed in Nakonde or not. (4 marks)

(b) Wing Pong Zulu, a young Businessman fathered by a Chinese national here in Zambia is interested in expanding his company to other ventures. His company is limited by shares and has over 20 workers. Among the workers, he has Mulenga whom he has hired as a driver so that Mulenga raise money for his University. He also has Chama who has survived despite her misconduct and lack of knowledge on her job as a secretary for the past 7 years. Wing Pong Zulu recently has been having financial problems in relations to his business. He has thought of abolishing the position of a driver so that he should be driving himself and he wants to dismiss Chama for the alleged conduct.

Required:

(i) Explain what Wing Pong Zulu should do in relation to Mulenga's position. (2 marks)

(ii) Explain the type of dismissal that Wing should implore in relation to Chama. (2 marks)

(iii) Assuming Chama committed a wrong while working last year. Discuss who is going to be held liable. (2 marks)

[Total: 20 Marks]

END OF PAPER

SUGGESTED SOLUTIONS

SOLUTION

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

SOLUTION TWO

(a) In advising Nachula Saana, it is vital to make reference to authorities. The facts are similar or the same as in **Carlill V Carbolic Smoke BALL CO.**

It is vital to state that a contract is an agreement between two or more people with an intention to create legal relations. There must be a bargain by which the obligations assumed by one party are supported by the consideration given by the other. Intention to create legal relations must always be established. Also, consideration and legality must be shown for a contract to be valid.

In the case of the Company in Carlill V Carbilic Smoke ball Co, inserted an advertisements in a number of newspaper stating that it would pay 100 pounds to anyone who caught flu after using its smoke balls as directed for 14 days. The Company further stated that to show its sincerity in the matter, it had deposited 1,000 pounds at the Alliance Bank to meet possible claims. Mrs Carlill bought one of the smoke balls, used it as directed but still caught flu. She claimed the 100 pounds reward but was refused, so she sued the company in contract. The company argued that:

- It claimed that it attempted to contract with the whole world, which was clearly impossible. The court of Appeal held that the company made an offer to the whole world and it would be liable to anyone who came forward and performed the required conditions.
- The Company further submitted that the advertisement was in the nature of a trade puff and too vague to be a contract. The Court dealt with this argument by asking what ordinary members of the public would think about the advertisement. The court took the view that the details of the uses were sufficiently definite to constitute the terms of the contract. The reference to the 1000 pounds deposited at the bank was evidence of an intention to be bound.
- The company also argued that the plaintiff had not provided any consideration in return for its promise.
- Finally, the company submitted that there was no notification of the acceptance in accordance with the general rule.

It was held that in this kind of contract, which is known as a unilateral contract, acceptance consists of performing the requested act. Notification of acceptance is not necessary. The court concluded that Mrs Carlill was entitled to recover the 100 pounds reward.

In a similar manner, there was indeed a valid contract in the case of Nachula Saana and Power Energy Drink company because it was a unilateral contract were acceptance consisted of the performance of what was requested and there was consideration on the time taken to use the product as prescribed.

The student should just be able to demonstrate that the elements of a valid contract exist.

(b) The types of Winding up are;

A compulsory winding up otherwise known as winding up by court, is winding up in which the directors of the company do not feel able to make statutory declaration that the company will be able to pay its debts within approximately twelve months. It also occurs where such a statement has been made but the company finds that it is unable pay its debts within the stipulated time. If satisfied, the Court makes an order to wind up the Company.

Examples of the grounds to wind up a company include inability to pay debts, the number of members reducing below two. The entire grounds foe winding up by the court are found in the companies Act.

Voluntary winding up

Voluntary winding up maybe be made by the members or creditors. In the case of creditors, winding up occurs where the shareholders resolve to put the company into liquidation but cannot make a declaration of solvency. If a resolution to wind up is passed, shareholders must within 24 hours of passing resolution convene a meeting of the creditors and a liquidator must be appointed. Where members are the ones winding up the Company, the shareholders pass a resolution to wind up and appoint a liquidator. In order for it to be a members voluntary winding up, the directors have to make the declaration of solvency confirming that the company will be able to pay all its debts.

A voluntary winding up enables a company and its creditors to be free to settle their affairs without having to seek the assistance of the Court. A voluntary winding up does not necessarily imply that a company's business is to cease entirely. Where a reconstruction or an amalgamation is desired, a voluntary winding up is often necessary to put this into effect.

The date the resolution to wind up the company voluntarily is recognised as the official date of the commencement of the winding up.

It must be noted that a resolution to wind up voluntarily does not mean that the company immediately ceases to exist, but rather, it still maintains its personality and its powers until it is dissolved. A transfer of shares can only be made without the sanction of the liquidator. Further, any alteration in the status of members cannot be allowed after the commencement of the winding up. A liquidator must be appointed and during the course of winding up, every invoice, order for goods, or business letter issued by the company or the liquidator must contain a stamen that the company is being wound up.

SOLUTION THREE

(a) A company at law is a fictitious entity, meaning that the same only exists in the contemplation of the law itself. A company, albeit being a person at law cannot think, make decisions, or carry out acts necessary for its continued existence.

The foregoing being the case, a company will only be able to carry out acts through its Agents who are its Directors, it therefore follows that; a Director as an Agent of a company owes several duties to the company itself, and these are as follows:

1. **Duty of skill and care**

   The above listed duty of a company Director entails that a Director ought to exercise a reasonable level of skill and care in the exercise of his functions, but that such degree of skill and care should be such as is reasonably expected of a professional of his standing, as in the case of *Re City Equitable Fire & Insurance Company Limited (1925).*

2. **Duty not to make a secrete profit**

   The duty not to make a secrete profit by a Director of a company requires that Directors as Agents of the company must, at all times act in good faith and must not, without the consent of the company accrue to themselves secrete profits, and if they do, they ought to declare the same to the company.

   The above duty was ably discussed in the case of *Boston Deep Sea Fishing Company vs. Ansell (1888).*

3. **Duty to exercise power for the benefit of the company**

   This duty entails that Directors of the company must at all times act in the best interest of the company, their primary duty should always lie with the company and not any member or third party as the case may be.

   For instance, and in view of the above, even a nominee Director's duty will always lie with the company and not the nominating party.

4. **Duty not to have conflict of interest**

   This means that a company Director's interest must never at any point come into conflict with the company's interest, and that where there is, or potentially may be a conflict, the Director ought to openly declare his interest, reference can be made to the case of *Regal (Hastings) Limited vs. Gulliver (1942)*.

5. **Duty to act legally, honestly and within powers**

This means that Directors of a company must act *bona fide*, meaning that they must not act illegally, for instance, the Directors of a company must not declare or pay out a dividend where there is none, or else, they will personally liable.

b. Whenever there is work that is to be done, it becomes necessary to undertake a contractual exercise between a 'Master' and a 'Servant'.

It must however be noted that this contractual relations can either be one 'of services' or 'for services', the distinction being that, former is one that is purely a 'Master-Servant' relationship, whereas the latter involves a relationship between a 'Master' and an 'Independent Contractor.

c. Every society is governed by laws in order to ensure orderliness, the primary categorisation of laws being; Criminal and Civil law.

The difference between criminal and civil law is that the former deals with the relationship between the State and its subjects, whereas the latter deals with the relationship between citizens.

SOLUTION FOUR

(a) Meetings in relation to companies

Corporate officials forming top management of a company, and sometimes the members themselves will, from time to time meet in order to discuss the affairs and or progress of the company.

The meetings, such as the Annual General Meeting will be convened in order to table the issues of appointing Directors and the Managing Director(s), as the case may be of the company and to discuss their respective remunerations.

Some meeting are mandatory, while others are left to the discretion of the company and are, or maybe regulated by decrees or the company's articles or both.

(b) Three types of Meetings:

1. Annual General Meeting.
2. Extraordinary General Meeting.
3. Class Meetings.

(c) Three types of resolutions:

1. Special Resolution.
2. Extraordinary Resolution.
3. Ordinary Resolution.

(d) (i) Dismissal

The law has always been very clear to the effect that; where an Employer seeks to terminate the services of an Employee, he or she must give prior notice before effecting the said termination.

It is worth noting however that at common, an Employer is at liberty to dismiss an Employee without notice should the circumstances justify the same but that the said Employer should in all cases follow the procedure laid down in section 25 of the Employment Act chapter 268 of the Laws of Zambia.

Some of the instances justifying Summary Dismissal are dishonesty within the workplace, this was ably discussed in the case of *Sinclair vs. Neighbour (1967).*

(ii) Redundancy

The law on Redundancy is found under *section 26B* of the *Employment Act chapter 268 of the Laws of Zambia.* Redundancy will take place where an Employer is downsizing on the number of Employees or is in the process of stopping to carry on a business.

Whenever declared redundant, an Employee will be entitled to a redundancy package, which package will be calculated on the same scale as *unfair dismissal* and will also take into account the years of service.

(e) Literal Rule of interpretation

The law as we know is contained in, and governed by statute, it however is inescapable that the nature of the law would require that sometimes, if not all the time, one would have to summon the rules of statutory interpretation in order to give effect to a statute.

The primary rule of interpretation is the *literal rule* of interpretation, this rule entails that the Court must give effect to the words in a statute in their plain and ordinary sense, without having recourse to the mischief rule of interpretation.

SOLUTION FIVE

(a) Since Bank of Lusaka is a Creditor, it has the power or right as follows:

(i) Instances when a company may be wound up. (c) provide for wounding up by the courts on an application of the creditors to recover their money for fear of bankruptcy of the debtor company.

(a) Winding up by the court as provided in 263(1)(a)

(b) Voluntary winding up moved by members provided in 263(1)(b)(i)

(c) Voluntary winding up moved by creditors provided in 263(1)(b)(ii)

(d) Winding by failure to commence trading within year of registration.

(b) A receiver is a person appointed by the court to protect property during the course of liquidation. A receiver is appointed to take into account interests of creditors in liquidation.

(c) A receiver is appointed to take into account interests of creditors in liquidation. The powers of the receiver include:

- Power over all the assets of the company in liquidation
- Power to appoint or terminate the appointment of a special manager of the debtor's estate or business in the interest of the creditors according to section 12(1) of the Act
- Power to appoint a duty official receiver
- Power to administer oaths.

(d) Corporate legal personality arises when a company has been incorporated at the Patents and Companies Registration Agency PACRA. Once incorporated, a company assumes legal personality in its own name and right so that the promoters of such company are completely detached from the company. The company once incorporated becomes liable as an artificial person for all contractual breaches, all torts committed and all corporate criminal offences that it may commit. *Salomon v Salomon and Co* (1897) established this principle. In the case, the House of Lords held that the company had been validly formed under the Companies Act 1862 and, on the terms of that Act, the company was a different person from the subscribers to the memorandum. In *R v Philippou* (1989) here the court held that a sole director and shareholder of a company can be convicted of stealing from their own company as the company and the subscribers regardless of whether one is a sole director and shareholder in the company once the company is incorporated and assumes the status of corporate legal personality.

SOLUTION SIX

(a) (i) A partnership can be resolved in the following ways:

(1) Ending of the period for which the partnership exists Section 32(a) of the Act states that a partnership for a fixed term is dissolved when the term expires. A partnership for the joint lives of A, B and C ends on their death of A or B or C.

(2) Achievement of purpose for which partnership formed. By reason of the law, a partnership for a single undertaking is dissolved at the end of it.

(3) Giving of notice under section 32(c) of the Act, a partnership which is not entered into for a period of time or a particular purpose can be dissolved by notice given by any partner, but not a limited partner.

(4) Death of a partner under section 33(1) of the Act, the death of a partner (but not a limited partner) dissolves the firm. The share of the partner who has died goes to his personal representatives who are usually appointed by his will. They have the rights of a partner in dissolution.

(5) Bankruptcy of partner By reason of section 33(1) of the Act, the bankruptcy of a partner (not a limited partner) dissolves the firm.

(6) Illegality Under section 34 of the Act, a partnership is in every case dissolved by illegality. There can be no contracting out in the partnership agreement. There are two types of illegality: 1 Where the business is unlawful, for example, where the objects are unlawful

(7) Judicial dissolution Dissolution by the court is necessary if there is a partnership for a fixed time or purpose and a partner wants to dissolve a firm before the time has expired or the purpose has been achieved and there is nothing in the partnership agreement that allows this to be done. There must be grounds for dissolution which include the following.

(8) Mental incapability. A petition may be presented on behalf of the partner who is incapacitated or by any of the other partners.

(9) Physical incapacity. This is a ground under section 35(b) of the Act. The incapacity must be permanent.

(10) Conduct prejudicial to the business Section 35(c) of the Act provides for this. The conduct may relate to the business.

(11) Wilful or persistent breach of the agreement. This is covered by section 35(d) of the Act. It includes for example, refusal to meet on business or keep accounts, continued quarrelling and very serious internal disagreements. However, the conduct must be serious. Thus, occasional rudeness or bad temper would not suffice. Wilful means a serious.

(ii) it must be noted that partners do bind other partners or the firm. If it has been agreed between the partners that any restriction shall be placed on the power of any one or more of them to bind the firm, no act done in contravention of the agreement is binding on the firm with respect to persons having notice of the agreement.' The key point to note about authority of partners is that, other than when the partner has actual authority, the authority often depends on the perception of the third party. If the third party genuinely believes that the partner has authority, the partner is likely to bind the firm

In simple terms, a partner is the agent of the partnership and their co-partners. This means that some of their acts bind the other partners, either because they have, or because they appear to have, authority. The Partnership Act 1890 defines the authority of a partner to make contracts as follows: 'Every partner is an agent of the firm and his other partners for the purpose of the business of the partnership, and the acts of every partner who does any act for carrying on the usual way of business if the kind carried on by the firm of which he is a member bind the firm and his partners, unless the partner so acting has in fact no authority to act for the firm in the particular matter, and the person with whom he is dealing either knows that he has no authority, or does not know or believe him to be a partner.

Thus, the contract signed by Karen was valid and enforceable as the act binds the firm and was made in the benefit of the firm.

The student need not write all of the above to be given marks. Once a student show that the partners or partnership is bound by that contract, marks should be awarded.

(b)

(i) The scenario attracts what amount to redundancy. Redundancy arises where an employer intends to stop carrying on his business, or is reducing employee numbers because of poor business or to guarantee that the business remains a viable entity. The aim of a redundancy payment is not to cushion a person over a period of unemployment, but rather to recognise an employee's stake in his job. Thus he must declare the employees redundant.

OR:

The contract of service of an employee shall be deemed to have been terminated by reason of redundancy if the termination is wholly or in part due to: (a) the employer ceasing or intending to cease to carry on the business by virtue of which the employee was engaged; or (b) the business ceasing or reducing the requirement for the employees to carry out work of a particular kind in the place where the employee was engaged and the business remains a viable going concern.

Dismissal is caused by redundancy when the employer has ceased to carry on the business in which the employee has been employed for or the business no longer needs employees to carry out the work. In these circumstances, dismissal is presumed by the courts to be by redundancy unless otherwise state

(ii) Dismissal gives a picture of wrong-doing on the part of the dismissed employee because of its punitive connotations. Where the employer dismisses an employee, he terminates the contract summarily without notice on grounds of misconduct, negligence or incompetence. If such grounds are justified, the employee forfeits the right to any notice whatsoever and to a number of other benefits.

Where an employer wants to terminate an employee's services on the basis of poor conduct or performance, he must give the employee a chance to defend himself against the charges raised against him (section 26A).

Thus, Chama can be dismissed under summary dismissal based on the misconduct of her previous acts.

(iii) The one to be held liable is the employer. This falls under what is called vicarious liability. Vicarious liability is where an employer is liable for damage caused to another by his employee while the employee was carrying out his work (or while he was in the course of employment as it is called). The principle applies whether the injury was to an outsider or to a fellow employee.

The employer is liable even though he was not in any way at fault. This rule, which seems at first sight to be unfair to the employer, is based upon law and police.

If an employee of a corporation injures someone by negligence while acting in the course of his employment in an intra vires activity, then the corporation is liable.

Marks should be given once a correct answer is given and not necessarily how much one writes. The employer therefore shall be held liable.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 10 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

Attempt all ten (10) multiple choice questions.

Each of the following questions has only one 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 The corporate governance structure of a company reflects the individual company's:

A. Cultural and economic system

B. Legal and business system

C Social and regulatory system

D. All of the above

(2 marks)

1.2 One of the objectives of the Sarbanes-Oxley Act was to:

A. Increase the cost of compliance with federal regulations

B. Force foreign companies to delist from U.S. capital market exchanges

C. Improve the quality and transparency of financial reporting

D. Increase the compliance burden for small companies

(2 marks)

1.3 The chairperson of the board of directors and CEO should be leaders with:

A. Vision and problem solving skills

B. The ability to motivate

C. Business acumen

D. All of the above

(2 marks)

1.4 An example(s) of internal change forces is (are):

A. inadequate communication

B. problems in morals

C. market competitors

D. a. & b

(2 marks)

1.5 Which of the following is not a way of overcoming resistance to change?

A. Involving those who resist in the change process

B. Bullying and harassing people into towing the line

C Communication and discussion

D. Incentives

(2 marks)

1.6 Which of the following is NOT one of Drucker's seven tasks for managers?

A. Manage by objectives

B. Take strategic decisions

C. Take operational decisions

D. a. & b

(2 marks)

1.7 Theory X assumes which of the following?

A. People seek out responsibility

B. People achieve little satisfaction from work

C. People are committed to organizational activities

D. People regard work as normal activity

(2 marks)

1.8 Which of the following is expert power?

A. Leader can reward staff who complies with instructions

B. Leader can punish staff who does not comply with instructions

C. Leader has power because subordinates trust him/her

D. Leader has power because of their expert knowledge

(2 marks)

1.9 Aldefer and McClelland are two examples of ____________ theories of motivation.

A. Content

B. Process

C. Equity

D. Expectancy

(2 marks)

1.10 According to Herzberg, which of the following may be regarded as hygiene/maintenance actors?

A. Working conditions

B. Salary

C. Company policy

D. All of the above

(2 marks)

[Total: 20 Marks]

SECTION B

Question TWO in this section is Compulsory and must be attempted.

Then attempt any THREE (3) questions from the remaining

QUESTION TWO

(a) The need to understand the dimensions of job satisfaction and good performance on the job have led to increasing interest in job design.

Required:

Discuss the three major methods that can be used to make the job attractive to the incumbent. (15 marks)

(b) The purpose of performance evaluation varies from one organization to another. Generally, it is seen as a mechanism for providing feedback and determinant of reward allocation.

Required:

State five (5) uses of performance evaluation or appraisal that management may consider for general human resource management decisions. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Organizations are not just collections of individuals working alone; members are usually clustered into groups or teams. Groups can accomplish things that are difficult for individuals working alone.

(a) Explain the stages in group formation identified by Tuckman. (10 marks)

(b) Explain fully what you understand by the term 'group norm' and 'group cohesiveness' in relation to workgroups**.** (4 marks)

(c) What is a formal organization? (2 marks)

(d) Explain two (2) advantages of Virtual Teams. (4 marks)

[Total 20 Marks]

QUESTION FOUR

A young graduate Atalia Bwalya cannot understand why the Human resource manager has asked her to go and work in production department while she has accounting qualification. Her concerns come in the wake of the current changes which has seen a lot of people being moved to different sections of the company. Other workers have also expressed similar concerns and some are wondering why the new Human Resources Manager has made changes without communicating to them earlier. Everyone thinks people are being misplaced and there is no "Best Fit" approach in the changes.

Required:

(a) Explain the meaning of the word "Best Fit" in human resources management. (2 marks)

(b) Describe the external change triggers. (12 marks)

(c) Illustrate the three ethical issues that management needs to consider when implementing change. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

There are many ways in which organizations can be described. There are organizations that are established to make profits and others that do not make profits but offer a service. Some of these are owned by individuals and some of them are owned by groups of people. To show your understanding of these different organizations, you are required to:

(a) Describe five (5) types of business organizations. (10 marks)

(b) Describe any five (5) stakeholders of an organization. (10 marks)

[Total: 20 Marks]

QUESTION SIX

Organizational Behavior is a concept that stipulates that the behavior of a business organization is based on the behavior of individuals and groups that are employed in the organization. As such, there is need for learners to know the role of these two parts in the operations of the business.

Required:

(a) Discuss any five significant roles of individuals in the organization. (10 marks)

(b) Explain the significance of groups in the organization. (9 marks)

(c) Define a role. (1 mark)

[Total: 20 Marks]

END OF PAPER

MODEL SOLUTIONS 2019 June

KNOWLEDGE LEVEL

CA 1.5 MANAGEMENT PRACTICE AND THEORY

SECTION A

SOLUTION ONE

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

SECTION B.

SOLUTION TWO - COMPULSORY

(a) The process of restructuring the job when found to be dissatisfying was carried out in at least the following three methods, namely job rotation, job enlargement and job enrichment.

i. **Job rotation** is the most common form of individual job redesign. It involves the moving of a person from one job or task to another aimed at adding some variety and help remove boredom at least in the short term. This is more pronounced where the jobs are similar and routine. Employees within the medium term would find the new job boring again.

ii. **Job enlargement** involves increasing the scope of the job and the range of tasks that a person carries out. It may be achieved by combining a number of related operations at the same level. Job enlargement is horizontal job redesign; it makes a job structurally bigger. It lengthens the time cycle of operations and may offer greater variety. Not always popular with workers as it may not improve a person's intrinsic satisfaction or sense of achievement. Workers would see this as increasing the number of routine and boring tasks.

iii. **Job Enrichment** is an extension of the more basic job rotation and job enlargement methods of job design. This method attempts to enrich the job by incorporating motivating or growth factors such as increased responsibility and involvement, opportunities for advancement and the sense of achievement. Job enrichment involves vertical job enlargement. It aims to give the person greater autonomy and authority over the planning, execution and control of their own work. This is sometimes referred to as empowerment.

(b) Management uses performance evaluation or appraisal for general human resource management decisions.

i. Performance evaluations are important inputs in decisions of promotion, transfer and termination.
ii. Evaluations identify training and evaluation needs. They help pinpoint employee skills and competences, which are currently deficient for staff development, can be used to remedy the situation.
iii. Performance evaluation is used as criteria against which selection and development programs are validated. Newly hired employees who perform poorly can be identified through performance evaluation.
iv. Performance evaluation also provides a feedback to employees on how the organization views their performance.
v. Performance evaluations are also used as a basis for reward allocations. Thus who gets a merit increase or who gets a bonus for work output.

SOLUTION THREE

a) Explain the stages in group formation identified by Tuckman

i. **Forming-** People come together to form a group. The objective may be unclear
ii. **Storming-** This involves open conflicts among the members of the team as they try to identify each individual and group objectives.
iii. **Norming-** this stage involves the setting of group rules and work ethics and objectives
iv. **Performing-** this stage involves the team setting to work on the set goals.
v. **Adjourning-** after the group has fulfilled its objective, the group starts splitting or breaking down.

b) Explain fully what you understand by the term 'group norm' and 'group Cohesiveness' in relation to workgroups**.**

i. Group norm- these are informal guidelines of behavior and code of conduct that provides some order and conformity to group activities.
ii. Group Cohesiveness- The bondage of the group members with one another

c) What if a formal organization

Formal organization- is a planned co-ordination of activities of a number of people for the achievement of a common explicity purpose or goal through its functions.

d) Explain two (2) advantages of Virtual Teams

i. People can be working in remote places and distance is not a barrier
ii. Information is easily shared with less time factor

SOLUTION FOUR

a. Explain the meaning of the work “best Fit” in human resources

Best Fit – recruitment and placement of the right staff for the right job in an organization.

b. Explain the external change triggers

A candidate must use the PESTEL analysis framework as external triggers

i. **Political-** change can be triggered by unexpected change in the political crisis.
ii. **Economical-** economical developments such as growth or downturn can trigger change.
iii. **Social and culture-** A change in public attitudes and opinions might trigger changer.
iv. **Technologica**l- rapid advancement in technology can cause the organization to start making changes
v. **Ecological-** Climate change such as weather conditions can triggers changers
vi. **Legal-** A change in regulations such as labor laws or trade laws can triggers changers.

c. Illustrate the three ethical issues that management needs to consider when implementing change.

Some of the Ethical issues that may arise include and need consideration are;

i. Will the change mean that some employees will lose their jobs? Can something be done to offer them alternative work?
ii. Will the change affect the living conditions of people near the organization’s business location? Is there any risk of pollution to the local area?
iii. If the change will mean recruiting skilled workers, should the organization be offering job and training to people in the local community?

SOLUTION FIVE

a) Five Types of business organizations are:

i. A sole trader is also called a sole proprietorship. This is a business that is owned and run by one person. This person puts up the capital and has full control of the running of the business and enjoys the profits on his own.

ii. A Partnership is a business that is entered into by two or more people to carry on a business as co-owners each of whom has invested in the business.

iii. A Limited Company is a private company whose owners are legally responsible for its debts only to the extent of the amount of capital they invested.

iv. Alliances and Co-operatives is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled company

v. A Private limited company a *private limited company* is a *company* which is *privately* held for small businesses. The *liability* of the members of a *Private Limited Company* is *limited* to the amount of shares respectively held by them.

vi. A Public limited company is company whose securities are traded on a stock exchange and can be bought and sold by anyone. This benefit helps the owners in raising capital but has *limited liability*.

B. The five stakeholders of an organization are:

i) Employees are individuals who work for an organization for wages and salaries. They have an interest in the company they work for as this is where they achieve their well-being. They are important assets of an organization and should be treated fairly as both the employee and employer need each other.

ii) Shareholders are individuals who own shares in an organization. Their interests are assessing the profitability of their investment. Shareholders elect a company's directors, who appoint and supervise senior management to run their company.

iii) Customers are individuals or organizations who buy goods or services from the company. Without customers, businesses could not exist as the success of a company relies on their relationship with their customers. To create a successful business, company managers must be able to attract the *interest* of potential *customers*.

iv) A *supplier* is a person or business that provides a product or service to another entity. There are several benefits associated with supplier relationship management such as reduced costs, increased efficiency, minimize price volatility. The managers of a company must prioritize supplier relationship management.

v) The Government is interested in businesses because of the corporate taxes that they collect from them which adds up to the government's treasury and are also potential customers. As a regulator the government has interest in the type of business that companies are involved in, in order for them to be able to protect the major consumers of the company's product and services

SOLUTION SIX

a) The significance of individuals in the organization is that individuals are the ones actually do the work. Individual Differences

Every individual in the world is different from others. Science supports this idea. Each person is different from all others, probably in a million ways, just as each DNA profile is different.

The idea of the individual difference comes originally from psychology. From the day of birth, each person is unique, and personal experiences after birth tend to make people even more different.

Perception

Peoples' perceptions are also different when they see an object. Two people can differently present the same object. And this is occurring for their experiences.

A person always organizes and interprets what he sees according to his lifetime of experience and accumulated value.

Employees also see work differently for differ in their personalities, needs, demographics factors, past experiences and social surrounding.

A whole Person

An employee's personal life is not detached from his working life.

As an example, A women who attend the office at 9:00 AM is always anxious for her children's school time (if her kids can participate in the school or not).

As a result, its impact falls on her concentration that means her working life.

For this reason, we cannot separate it. So manager should treat an employee as a whole person.

Motivated Behavior

An employee has so many needs inside him. So, they want to fulfill those needs. That’s why; they had to perform well in the organization.

Some motivations are necessary to enrich the quality of work.

A path toward increased need fulfillment is the better way of enhances the quality of work.

Desire for Involvement

Every employee is actively seeking opportunities to work to involve in decision-making problems. They hunger for the chance to share what they know and to learn from the experience.

So, the organization should provide them a chance to express their opinions, ideas, and suggestions for decision-making problem.

A meaningful involvement can bring mutual benefit for both parties.

Value of the Person

An employee wants to be treated separately from another factor of production, (land, capital, labor).

They refuse to accept the old idea that they are just treated as economic tools because they are the best creation of Almighty Allah.

For this, reason, they want to be treated with carrying respect, dignity and other things from their employers and society.

Human Dignity

This concept is very philosophical. Every person needs to be treated with dignity and respect, whether it's the CEO of the company or labor.

It confirms that people are to be treated differently from other factors of production because they are of high value.

Any combination of the above points will be acceptable as answers that describe why individuals are significant.

b) The significance of groups in the organization.

The importance of the group can be elaborated under the following points:

Focus on achieving common objectives

Whatever type of group is formed their main aim would be to achieve their common objectives. Each individual in the group puts in his own expertise, knowledge for the attainment of the group objectives this means pooling in of lot of ideas and this helps in simplifying the procedure of performing the task which intern will lead to achieving the objectives on time and efficiency

Teamwork

In today's fast moving world it has become imperative to work as a team to attain common objectives.

Teamwork leads to sharing information, the team members bring different perspectives, ideas, experiences and greater knowledge, helping each other with task assigned and ultimately reaching the goals set by the organization and the team itself. Working as team also helps one to develop his/her personality and gives the confidence to perform the task meticulously. It also encourages people to increase their output. It is at times also helpful to resolve the conflicts that might arise during the work.

Leadership made easier

Each and every group or team will have a leader or a manger which will give guidance, direct and explain the tasks to be achieved. For him it becomes easier in a group to explain things rather than explaining it to each and every individual separately.

c) A role is a responsibility or a function a person is assigned to do

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 12 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A – (COMPULSORY)

Attempt all Ten (10) multiple choice questions.

QUESTION ONE

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

1.1 What is it the importance of installing antivirus software on a computer?

A. To protect computers from being damaged due to power failure
B. To protect computers from malicious programs which may delete or change information
C. To protect user's information from unauthorized individuals
D. To protect computers from vandalism

(2 marks)

1.2 Which device is used to mark shaded multiple choice answers on answer cards?

A. Barcode reader
B. Optical mark reader
C. Magnetic ink mark reader
D. Magnetic mark reader

(2 marks)

1.3 What is a verification of a login in username and password called?

A. Authorisation
B. Accessibility
C. Authentication
D. Logging in

(2 marks)

1.4 Which of the three sets are output devices?

A. Hard disk, flash disk and optical disk
B. Laser printer, VDU and Graph plotter
C. MICR, Mark reader and smart card
D. Scanner, RAM and EEPROM

(2 marks)

1.5 Which of the following device temporarily stores the operating system, programs and data that is running on the computer?

A. ALU
B. RAM
C. Motherboard
D. ROM (2 marks)

1.6 What does the term decode mean?

A. To select pictures, familiar language or words that can easily be understood

B. To supply sufficient feedback

C. To interpret the message

D. To encode the message (2 marks)

1.7 There are three (3) types of reports: routine, occasional and ………………report

A. Accident

B. Police

C. Special

D. Comprehensive (2 marks)

1.8 A phone is defined as a ……

A Single speech sound

B Spoken Word

C A communication device

D A double speech sound (2 marks)

1.9 Which of the following is a collective term for upward and downward communication?

A. Horizontal communication

B. Spiral communication

C. Vertical communication

D. Diagonal communication (2 marks)

1.10 Which of the following forms of information presentation can a manager use to reflect priorities in apportioning resources?

A. Line graph

B. Gantt chart

C. Flow chart

D. Pie chart (2 marks)

[Total 20 Marks]

SECTION B

Question TWO 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)

Data Mining Secure Limited's IT Department is embarking on a networking project to enhance the communication and E-Commerce aspects of the business.

As an accounting officer, you are expected to submit your concerns over data communications, control and security.

Required:

(a) Explain any three (3) technical limitations of E-Commerce. (6 marks)

(b) Briefly explain the term Windows Explorer. (2 marks)

(c) State any four (4) of its functions. (8 marks)

(d) State any four (4) types of microcomputers. (4 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

As an Accounts Officer you are required to work with data; collecting the data, storing it and processing the data into the intended financial reports.

Required:

(a) List the steps involved in the process of turning data into useful information. (5 marks)

(b) Explain any five (5) qualities of good information. (10 marks)

(c) Explain clearly any five (5) characteristics of an EIS. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

The use of ICTs has brought a lot of new methods of communication. With these methods come the important need for security and well-structured systems.

Required:

(a) Distinguish between a soft computer lock up and hard computer lock up and state how you would resolve each of these computer lock ups. (6 marks)

(b) Briefly describe any two types of Decision Support Systems (4 marks)

(c) List and explain any five (5) dangers of using emails (10 marks)

[Total: 20 Marks]

QUESTION FIVE

You are scheduled to hold a departmental meeting at 10:00 hours today. All is set for the meeting; unfortunately the meeting will not take place due to clash of important programs. It has been postponed to a later date.

Required:

(a) Write a notice informing members about the postponement of a meeting. In your notice include the rescheduled date of the meeting and other necessary details.

(10 marks)

(b) Some of your staff do not know some of the meeting terminologies, briefly explain the following meeting terminologies:

(i) Minutes
(ii) Agenda
(iii) Seconder
(iv) Committee member
(v) Resolution

(10 marks)

[Total: 20 Marks]

QUESTION SIX

Senior Management of your organisation has been resisting authorising the purchase of social media bundles for middle management. You have been requested to write a memorandum to the director of finance and administration to explain why it is necessary for the organisation to support such a proposal.

Required:

(a) Write the memorandum outlining five (5) advantages of using social media at middle management level. (14 marks)

(b) Briefly explain the following features of a memorandum:

(i) To and From (2 marks)

(ii) Subject line (2 marks)

(iii) Opening and closing paragraphs (2 marks)

[Total: 20 Marks]

END OF PAPER

SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

(a) Explain any three (3) technical limitations of E-Commerce

- Lack of sufficient system's security, reliability, standards, and communications protocols. This compromises the integrity of data and systems.
- Insufficient communication bandwidth. This may slow down an otherwise fast-paced environment.
- The software development tools are still evolving and changing rapidly. Therefore, there is need to consistently change the tools used in E-Commerce.
- Difficulties in integrating the internet and electronic commerce software with some existing applications and databases.
- The need for special web servers and other infrastructures, in addition to the network servers (additional costs).
- Possible problems of interoperability, meaning that some E-commerce software does not fit with some hardware, or is incompatible with some operating systems or other components.

(b) Definition of Windows explorer

Windows (File) Explorer is one of the applications in Windows that gives a hierarchical order of how files and folders are organised in window operating systems.

(c) In windows explorer you can:

- Move files from one location to another
- Copy files
- Delete unwanted files
- Rename files

(d) State any four (4) types of microcomputers

- Desktop
- Laptop
- Tablet
- Workstation
- Notebook
- Palmtop
- Smartphone

SOLUTION THREE

a) The process of turning data into useful information include the following:
   Step 1 - **Data collection**

   Step 2 – **Data evaluation**

   Step 3 – **Data analysis**

   Step 4 – **Interpretation**

   Step 5 – **Reporting Information**

b) Qualities of useful information are as follows:

   i) **Accurate** – Figures in a report for example should add up and all the information should be reliable and correct.
   ii) **Complete** - information should include everything relevant to the decision being considered. The information should be consistent. Avoid any unnecessary information.
   iii) **Cost effective** – It should not cost more to obtain the information than the benefits derived from its use. Information collection and analysis should be efficient. Presentation should be clear such that users do not waste time working out what the information means.
   iv) **Understandable** – The needs of the user are paramount. The information must be easy to read, well presented and easily interpreted.
   v) **Relevant** – All the information that is relevant to the decision being considered should be included.it should not contain unnecessary information.
   vi) **Accessible** – The choice of medium to provide the information should be appropriate. (face to face, email, letter, written report and consider the needs of the user.
   vii) **Timely** – The information should be available when it is needed and in time for required action to be effective.
   viii) **Easy to use** – The information should be presented in such a way that the user can easily use or pass it on as required.

c) **Characteristics of an EIS**

- Easy to use, screen-based systems with mouse, icons and touch-screen facilities, giving easy access to data
- Presentation aids, by pictorial or graphical means, so that information can be conveyed without too many trivial choices of scale, colour and layout

- Summary level data, captured from the organisation's main systems, which might involve integrating the executive's desk top micro with the organisation's mainframe
- A facility which allows the executive to drill down from higher to lower levels of information
- Data manipulation facilities such as comparison with budget or prior year data external information that can be superimposed onto the organisation's information
- It provides tools for analysis, including ratio analysis, forecasts, what if analysis and trends

SOLUTION FOUR

a) Computer hard lock up is when the computer stops responding or freezes and even when one to use the task manager to resolve the problem, it does not respond. It is caused by a hardware problem. One needs to switch the computer off to resolve a hard lockup.
Soft lock up is caused by a software problem and the computer will stop responding to any activity and all one needs to is to invoke the task manager and end the task that is not responding or restart the computer

b) **Types of DSS**

i) **Communication-drivenDSS**
Most communications-driven DSSs are targetted at internal teams, including partners. Its purpose are to help conduct a meeting, or for users to collaborate. The most common technology used to deploy the DSS is a web or client server. Examples: chats and instant messaging softwares, online collaboration and net-meeting systems.

ii) **Data-drivenDSS**
Most data-driven DSSs are targeted at managers, staff and also product/service suppliers. It is used to query a database or data warehouse to seek specific answers for specific purposes. It is deployed via a main frame system, client/server link, or via the web. Examples: computer-based databases that have a query system to check (including the incorporation of data to add value to existing databases.

iii) **Document-drivenDSS**
Document-driven DSSs are more common, targeted at a broad base of user groups. The purpose of such a DSS is to search web pages and find documents on a specific set of keywords or search terms. The usual technology used to set up such DSSs are via the web or a client/server system.

iv) **Knowledge-drivenDSS**
Knowledge-driven DSSs or 'knowledgebase' are they are known, are a catch-all category covering a broad range of systems covering users within the organization seting it up, but may also include others interacting with the organization - for example, consumers of a business. It is essentially used to provide management advice or to choose products/services. The typical deployment technology used to set up such systems could be slient/server systems, the web, or software runnung on stand-alone PCs.

v) **Model-drivenDSS**
Model-driven DSSs are complex systems that help analyse decisions or choose between different options. These are used by managers and staff members of a business, or people who interact with the organization, for a number of purposes depending on how the model is set up - scheduling, decision analyses etc. These DSSs can be deployed via software/hardware in stand-alone PCs, client/server systems, or the web.

c) **Dangers of using email**

- It is easy to send to the wrong people – most systems allow you to look up users' email addresses ad insert those into the address box
- Confidentiality – passwords must be safeguarded
- Virus transmission – emails that contain computer files or links to websites often spread viruses
- Too much information going to people who do not need it
- Spam – unwanted advertising emails (unsolicited emails)
- Security – system can be hacked

SOLUTION FIVE

(a) **NOTICE OF POSTPONEMENT OF A MEETING**

This serves to inform you that the meeting that was scheduled to take place today, (date of exam time) has been postponed to a later date. This is due to clash of programmes as most staff are busy with the ongoing auditing exercise. The meeting will instead take place on Thursday (any date during exam time) at 14 00. The venue for the meeting is the conference room.

You are all encouraged to attend the meeting. Your full participation will be appreciated

Sende’rs signature

Name and position

Date of notice

(b)

(i) **Minutes** - A record of the discussions of the previous meeting.

(ii) **Agenda** – List of items to be discussed in a meeting.

(iii) **Seconder** – A member who supports an issue that has been proposed in a meeting.

(iv) **Committee member** – A person appointed to administer, discuss or make reports concerning a subject which it’s .members authorises. He or she can be as part of the decision making process in a meeting.

(v) **Resolution** – a decision agreed upon during the meeting

SOLUTION SIX

(a)

MUKULA MARKETING CORPORATION

Internal Memorandum

To: The Finance and Administration Manager

From: Assistant Accountant

Date: Any date during the examination

Subject: THE PURCHASE OF SOCIAL BUNDLES FOR MIDDLE MANAGEMENT STAFF

Following senior management's resistance to purchase social media bundles for middle management staff and its request that the proposal be put in writing, I hereby wish to present to you the rationale upon which such a proposal is premised.

First and foremost, the need for fluid communication across the organization needs not to be over-emphasized. Therefore, this memo serves to outline some of the critical grounds upon which such support from management is based.

- Social media is at the moment the in-thing in terms of communication;
- It has no time limit for sharing information;
- Most of staff are already using the platform;
- Middle management staff are the ones who are in regular contact with the clients
- The cost involved is relatively low considering the returns;
- Supporting the request would be a tremendous morale booster towards work.

In view of the foregoing, management must consider subsidising middle management staff social media expenses' with 5 GB, each per month for use outside the premises since everybody has access to office WiFi while at work.

Find attached the estimated cost on the various networks the 6 members of staff involved are subscribed to for a proposed expenditure.

signature

Mr D M P

(b)

(a) To and From - **To** indicates the recipient of the information while **From** indicates the sender of the message in a memo.

(b) Subject line – indicates the topic covered in the memo (main theme of the message)

(c) Opening and closing paragraphs – the opening paragraph indicates the purpose of the memo while the closing one conclude and emphasize the desired outcome of the writer.

END OF SOLUTIONS

CHARTERED ACCOUNTANTS EXAMINATIONS

CA ZAMBIA - APPLICATION LEVEL

CA 2.1: FINANCIAL REPORTING

MONDAY 10 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

Pineapple, Plc. acquired 19.2 million of the equity shares of Strawberry Limited on 1 January 2019 for a total cost of K80 million. Of this, 60% was paid on 1 January 2019 and the balance payable on 31 December 2020. Pineapple Limited's cost of capital is 12% per annum. The fair value of the non-controlling interests at acquisition was K44 million based on the market value of an equity share in Strawberry.

Further, Pineapple Limited acquired 40% of the equity shares of Apple Limited on 1 January 2019 for a cash price of K3.30 per acquired share. Pineapple Plc exercises significant influence in all financial and operating policies of Apple limited.

As a newly appointed group accountant of Pineapple Plc, it is your responsibility to prepare a group statement of financial position as at 30 September 2019. Unless otherwise stated, assume all profits and losses accrue evenly throughout the year. The relevant statements of financial position as at that date are given below.

	Pineapple K'million	Strawberry K'million	Apple K'million
Assets			
Non-current			
Property, plant & equipment	112.5	73.5	63.00
Investments (i)	74.00	nil	nil
	186.5	73.5	63.00
Current			
Inventory	30.00	27.00	15.00
Trade receivables	19.50	4.50	9.00
Bank	6.00	3.60	2.40
Total assets	242.00	108.60	89.40
Equity and liabilities			
Equity			
Equity shares of K0.60 each	45.00	14.40	9.00
Share premium	36.00	nil	nil
Retained earnings:			
At 30 September 2018	36.00	38.20	15.80
For the year to 30 September 2019	11.00	12.00	18.00
Total Equity	128.00	64.60	42.80

Liabilities

Non – current	60.00	20.00	19.60
Current	54.00	24.00	27.00
Total equity and liabilities	242.00	108.60	89.40

The following information is relevant in the preparation of consolidated statement of financial position:

(i) The investments figure includes, in addition to the cash paid to acquire equity shares in Strawberry Limited and Apple Limited, 15% equity shares in Banana Limited acquired two years' ago for K5.2 million. This investment is classified as 'financial asset through profit or loss' and the amount shown in the statement of financial position represents its fair value at 30 September 2018.

There have been no significant changes in the fair values of the investments in Strawberry Limited and Pineapple Limited since the date of acquisition. However, the fair value of investment in Banana Limited at 30 September was K6.8 million.

(ii) There had been no new issue of shares by Strawberry since the date of acquisition and no dividends were paid during the year by any of the companies.

(iii) After acquisition, Pineapple Limited sold goods to Strawberry Limited and Apple Limited for K6 million and K2 million respectively. These goods were sold at a mark up of 25%. A quarter of the goods sold to Strawberry Limited and half of the goods sold to Apple Limited were still in the inventories of Strawberry Limited and Apple Limited at 30 September 2019.

(iv) The fair values of the assets of Strawberry Limited at the date of acquisition were equal to their carrying amounts with the exception of the following items:

- Non – depreciable land fair value exceeded its carrying amount by K0.50 million.
- The fair value of an item of plant was below its carrying amount by K0.64 million. This plant had a remaining useful economic life of four (4) years at the date of acquisition.
- Additionally, Strawberry had an internally generated brand name on the date Pineapple acquired control over it. The Directors of Pineapple estimated the fair value of this brand name to be K10 million with an indefinite useful economic life.

Strawberry Limited has not incorporated these fair value changes in its financial statements.

(v) Pineapple Limited's policy is to measure non – controlling interest at its proportionate share of Strawberry Limited's identifiable net assets.

(vi) The current account balances relating to transactions between Pineapple Limited and Strawberry Limited did not agree at 30 September 2019. The balance in Pineapple Limited statement of financial position was K1.4 million. This was less than that in Strawberry Limited statement of financial by K0.72 million. The figures are included in the above statements of financial position in trade receivables and current liabilities in Pineapple Limited and Strawberry Limited respectively. The difference was due to the cheque issued by Strawberry Limited which was credited to Pineapple Limited's bank account on 16 October 2019.

(vii) Impairment test carried out on 30 September 2019 revealed that investment in Apple Limited was impaired by K1.6 million and goodwill on acquisition of Strawberry Ltd was impaired by K1 million.

(viii) IFRS 3: Business Combinations, provides for two alternative ways of valuing non-controlling interests in group financial statements, i.e. either by:

- Using the non-controlling interest's proportionate share of the fair value of the subsidiary's net assets, or
- Using the full (fair) value Method.

Required:

(a) Describe the accounting treatment of non-controlling interest in the Consolidated Statement of Financial Position under each of the permissible two alternative ways. Your answer should specifically address *treatment* of impaired goodwill in the Consolidated Statement of Financial Position. (5 marks)

(b) Prepare a consolidated statement of financial position of Pineapple Group as at 30 September 2019. (35 marks)

[Total: 40 Marks]

SECTION B

Attempt any three (3) questions in this section

QUESTION TWO

The objective of IAS 12 *income taxes* is to prescribe the accounting treatment for income taxes. For the purposes of this Standard, income taxes include all domestic and foreign taxes which are based on taxable profits. Income taxes also include taxes, such as withholding taxes, which are payable by a subsidiary, associate or joint venture on distributions to the reporting entity.

The principal issue in accounting for income taxes is how to account for the current and future tax consequences of: (a) the future recovery (settlement) of the carrying amount of assets (liabilities) that are recognised in an entity's statement of financial position; and (b) transactions and other events of the current period that are recognised in an entity's financial statements.

Zamtax Plc purchased an item of heavy industrial machinery for K180, 000 on 1 October 2015. It had an estimated useful life of 10 years and a residual value of K10, 000. Plant and machinery is depreciated on a straight-line basis. The tax authorities do not allow depreciation as a deductible expense. Instead, tax relief is granted based on an allowable deduction of 30% of the cost of the asset in the year in which the asset is acquired followed thereafter by an annual allowable deduction of 15% calculated on a reducing balance basis. The applicable rate of income tax throughout is 20%.

Required:

(a) Explain the general requirements of IAS 12 relating to accounting for deferred tax. (7 marks)

(b) Explain the purpose of providing for deferred tax. (3 marks)

(c) In respect of the above item of machinery, prepare extracts from the financial statements of Zamtax for the year ended 30 September 2018 showing the impact of deferred tax. (10 marks)

[Total: 20 Marks]

QUESTION THREE

The following trial balance relates to Mununga at 31 March 2019

	K'000	K'000
Revenue		930,000
Inventory at 31.3.2019	84,600	
Cost of sales	703,500	
Distribution costs	58,500	
Administrative expenses	82,500	
Interim Equity dividends paid	24,000	
Equity shares of K0.50 each		120,000
Retained earnings at 31.3.2018		132,300
Current tax	2,100	
Deferred tax		25,200
Leasehold property at valuation 31 March 2018 (note (ii))	75,600	
Plant and equipment at cost (note (ii))	140,400	
Right of Use Asset (ROUA) at cost (note (ii))	60,000	
Accumulated depreciation at 31.3.2018		
Owned plant and equipment		38,400
ROU plant		15,000
Lease payment on 31.3.2019 (note (ii))	18,000	
Lease liability at 1.4.2018 (note (ii))		46,800
Contract costs (note (i))	60,000	
Receivables	99,300	
Bank	16,500	
Trade payables		100,200
Payment from customer for construction of bridge		17,100
	1,425,000	1,425,000

The following additional notes are relevant:

(i) Mununga entered into a contract to construct a bridge on 1 October 2018. The contract is categorized as a 'performance obligation satisfied over time'. The agreed contract price is K150 million and construction was expected to be completed on 30 September 2020.

(ii) The contract cost in the trial balance comprise of K36 million for materials, labour and overheads and K24 million for specialist plant acquired on 1 October 2018.

On 31 March 2019, the sales value of work certified has been agreed at K66 million and estimated cost to complete is K30 million. This K30 million does not include depreciation of specialist plant. The specialist plant will have no residual value at the end of the contract and should be depreciated on prorate to time basis.

Mununga recognizes progress towards satisfaction of performance obligation on basis of sales value of work certified as a proportion of total contract price.

(iii) On 1 April 2017, Mununga acquired the 15 year leasehold property at a cost of K90 million. The accounting policy is to revalue the property at fair value at each year end. The valuation in the trial balance of K75.6 million as at 31 March 2018 led to an impairment loss of K8.4 million which was reported in the statement of profit or loss and other comprehensive income in the year ended 31 March 2018. At 31 March 2019 the property was valued at K74.7 million.

Owned plant is depreciated at 25% per annum using the reducing balance method.

The Right-of-use plant was acquired on 1 April 2017. The rentals are K18 million per annum for four years payable in arrears on 31 March each year. There is no implicit interest rate for the lease but Mununga has a borrowing cost of 8% per annum. Right-of-use asset is depreciated over the lease term.

No depreciation has yet been charged on any non-current assets for the year ended 31 March 2019. All depreciation is charged to cost of sales.

(iv) The directors of Mununga have estimated the provision for income tax for the year ended 31 March 2019 at K13.5 million. The required deferred tax provision at 31 March 2019 is K16.8 million. All adjustments to deferred tax should be taken to the statement of profit or loss. The balance of current tax in the trial balance represents the underprovision/overprovision of income tax liability for the year ended 31 March 2018.

(v) Directors of Mununga declared dividends of K0.4 million on 15 March 2019 besides those paid during the year to 31 March 2019.

Required:

(a) Prepare statement of profit or loss and other comprehensive income for the year ended 31 March 2019. (13 marks)

(b) Prepare the statement of financial position as at 31 March 2019. (7 marks)

[Total: 20 Marks]

QUESTION FOUR

PROFED Limited is a leading retail trading company in Zambia. The following are their results for the last two years:

PROFED Limited
Statement of Profit or Loss and Other Comprehensive Income
for the year ended 31 December

	2018	2017
	K'000	*K'000*
Sales	5,800	3,990
Cost of Sales	(4,123)	(2,863)
Gross Profit	1,677	1,127
Distribution Costs	(193)	(177)
Administration Costs	(218)	(126)
Operating profit	1,266	824
Finance Costs	(188)	(194)
Taxation	(108)	(120)
Profit for the Year	**970**	**510**

PROFED Limited
Statement of Financial Position for the year ended 31 December

	2018	2018	2017	2017
	K'000	*K'000*	*K'000*	*K'000*
Non-Current Assets		3,610		3,225
Current Assets				
Inventory	580		460	
Trade Receivables	460		280	
Cash & Cash Equivalents	200		160	
Total Current Assets		1,240		900
Total Assets		**4,850**		**4,125**
Equity and Liabilities				
Equity				
Share Capital	1,000		1,000	
Retained Earnings	1,525		555	
Total Equity	2,525		1,555	
Non-Current Liabilities				
Long-term Debt	1,623		2,000	
Total Non-Current Liabilities	1,623		2,000	
Current Liabilities				
Trade Payables	400		320	
Bank Overdraft	147		30	

Taxation	108		120	
Accruals	47		100	
Total Current Liabilities		702		570
Total Equity & Liabilities		**4,850**		**4,125**

Additional Notes:

(i) The Opening Inventory for 2017 was K500,000.
(ii) The number of shares in issue is 1,000,000 for both years.
(iii) Market price per share at year-end K12.00 (2018) and K6.20 (2017).

Required:

(a) Calculate, for both years, the following ratios in relation to PROFED Limited.
(1) Gross Profit margin
(2) Net Profit margin
(3) Current Ratio
(4) Trade Receivable Days
(5) Trade Payable Days
(6) Return on Capital Employed
(7) Earnings Per Share
(8) Price Earnings Ratio (8 marks)

(b) Draft a report to the Board of Directors of PROFED Limited in which you provide a commentary on the company's position and performance. Use the ratios calculated at (a) above as the basis for your commentary. (12 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) KACHAKA Limited is a company involved in building capacity for fish farming in Zambia. The financial controller has asked for your expertise in correctly accounting for Property, Plant and Equipment (PPE) within the company for its financial year ending 31 December 2018.

The following costs have occurred on the fish farm site:

	K
Preparation of site for construction of the farm	80,000
Maintenance cost	30,000
VAT on materials (recoverable)	120,000
Materials purchased for construction of fish farm net of VAT	250,000
Discount received on materials purchased	33,000
Staff training on improvement of farm operations	25,000
Import duty on materials purchased for construction of farm	28,000

Initial surveying of farm site	40,000
Project manager's salary to manage the fish farm	140,000
Wages of employees to build the fish farm	300,000
Wages of employees involved in farm operations	100,000
Testing costs	60,000

Required:

(1) Calculate the amount that should be capitalised as Property, plant and equipment for the above fish farm. (8 marks)

(2) In accordance with IAS 16 - Property, Plant and Equipment, explain the accounting requirements for the measurement of PPE:

(i) Initially, at the point of recognition;
(ii) Subsequently (2 marks)

(iii) IAS 16 requires that where an entity adopts the revaluation model, the carrying amount of PPE following a revaluation must be the asset's fair value at the date of revaluation.

Define fair value and explain how an entity can determine the fair value and residual value of a building in accordance with IFRS 13 fair Value Measurement. (3 marks)

(b) KACHAKA Limited's head office building is the only building it owns. Professional valuers determined the fair value of this building on 1 January 2018 as K2,100,000 and K600,000 respectively. KACHAKA is revaluing the building for the first time on 1 January 2018. The building was acquired on 1 January 2008 when its cost was K2,500,000 and the accumulated depreciation to 31 December 2017 amounted to K500,000 (straight line basis with a nil residual value). The estimated total useful economic life of the building has not changed.

Required:

In accordance with IAS 16 - Property, Plant and Equipment:

(i) How often should the residual value and useful life of an asset be reviewed and explain the accounting treatment. (2 marks)

(ii) Compute the carrying value of the building as at 31 December 2018 based on the information provided in the above scenario. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA2.1 FINANCIAL REPORTING SOLUTIONS
SOLUTION ONE

(a) Treatment of NCI and impaired goodwill in CSOFP as per IFRS 3

Firstly, IFRS 3 provides an option to value the non-controlling interest in group accounts at its proportionate share of the acquired subsidiary's identifiable net assets. This means that in the statement of financial position, the resulting carrying value of purchased goodwill only relates to the parent's element of such goodwill and as a consequence, the non-controlling interest does not reflect its share of the subsidiary's goodwill.

Any impairment of goodwill under this method would only be charged against the parent's interest, as the non-controlling interest's share of goodwill is not included in the consolidated financial statements.

The second method provides for valuing the non-controlling interest at its fair or full value. This reflects the non-controlling interest's ownership of the subsidiary's goodwill and has the effect of 'grossing up' the goodwill and the non-controlling interests in the statement of financial position (by the same amount), leading to an increase in the value of goodwill calculated on acquisition. It is argued that this method reflects the whole of the subsidiary's goodwill/premium on acquisition and is thus consistent with the principles of consolidation.

Under this method any impairment of the subsidiary's goodwill is charged to both the controlling (parent's share) and non-controlling interests in proportion to their holding of shares in the subsidiary.

(b) Pineapple Group

Consolidated statement of financial position as at 30th September 2019

	K' million	
Assets		
Non-current		
Brand name	10	
Property, plant and equipment 112.5+73.5+0.5-0.64+0.12W6	185.98	
Goodwill W2	20.14	
Investment in associate W3	23.52	
Financial asset through profit or loss	6.80	
	246.44	
Current		
Inventory 30+27.0-0.3W6		56.70
Trade receivables 19.5+4.5-1.4 Intra group		22.60
Bank 6+3.6+0.72		10.32
Total assets		336.06

Equity and liabilities

Equity

Equity shares at K0.60 each		45.00
Share premium		36.00
Retained earnings W6		55.02
		136.02
Non-controlling interest W7		14.91
Total equity		150.93
Liabilities		
Non-current	60+20 +27.81W5	107.81
Current	54 +24 - (1.4-0.72) intra group	77.32
Total equity and liabilities		336.06

Workings

W1 Group structure

Pineapple

80% (19.2/24) 40%

Strawberry Apple

NCI 20%

W2 Goodwill

	K'm	K'm
Consideration:		
Cash 60% x K80m		48.00
Deferred (40% x K80m) x 1/(1.12)^2		25.51
NCI at acquisition 20% x K65.46m		13.09
		86.6
Fair value of net assets at acquisition:		
Share capital	14.40	
Retained earnings 38.2+(3/12 x 12)	41.20	
Fair value adjustments:		
Land	0.50	
Patent	10	
Plant	(0.64)	
		(65.46)
Goodwill		21.14
Less impairment loss		(1)
		20.14

W3 investment in associate – Apple

	K'm
Cost of investment (40% x K9.0m/K0.6) x K3.30	19.80
Share of retained earnings 40% x (9/12 x K18m)	5.40
Impairment	(1.60)
Unrealised profit 40% x (25/125% x K2m x ½)	(0.08)
	23.52

W4 Financial asset through profit or loss

	K'm	K'm
Investment as per statement of financial position		74.00
Investments in:		
Strawberry 60% x K80m	48.00	
Apple W3	19.80	
		(67.80)
Financial asset through profit or loss		6.20

W5 Deferred consideration

	K'm
Balance at 1st January 2019 W2	25.51
Add: unwinding of interest 12% x K25.51m x 9/12	2.30
Balance at 30th September 2019	27.81

W6 Retained earnings

	K'm
As per question – Pineapple	47
Share in:	
Strawberry 80%x{(K50.2m-K41.2m)+(1/4xK0.6mx9/12)}	7.3
Apple (K5.4m- K0.08m) W3	5.32
Increase in fair value of FATPL K6.8m-K6.2m	0.60
Unrealised profit 25/125%x K6m x ¼	(0.30)
Impairment of investment in Apple	(1.60)
Impairment of goodwill	(1.00)
Unwinding of interest W5	(2.3)
	55.02

W7 Non-controlling interest

	K'm
At acquisition W2	13.09
Share of post acquisition retained earnings 20%x K9.1m	1.82

SOLUTION TWO

(a) Deferred tax is the future tax effect of temporary differences. So, in simple terms, deferred tax is tax that is payable/recoverable in the future. Temporary differences are differences between the carrying amount of an asset or liability in the statement of financial position and its tax base. Temporary differences arise where items are taxable or allowable in periods different from those in which the matter is recognised for financial statement purposes.

The tax base of an asset is the amount which will be deductible for tax purposes against any taxable economic benefits which will flow to the entity when the asset is recovered. If these benefits are not taxable, the tax base equals the carrying amount.
The tax base of a liability is its carrying amount, less any amount which will be deductible for tax purposes in respect of that liability in future periods. If the 'liability' is revenue received in advance, the tax base is its carrying amount, less any revenue which will not be taxable in future periods.
The general requirements of IAS 12 are that deferred tax liabilities should be recognised on all taxable temporary differences.
IAS 12 states that a deferred tax asset should be recognised for deductible temporary differences if it is probable that taxable profit will arise in future against which the deductible temporary difference can be utilised.

Deferred tax is provided on temporary differences at the expected tax rate in force when the timing differences reverse. Usually this is the current tax rate. Deferred tax expense will normally be charged against profit in the statement of profit or loss. An exception is the deferred tax charge arising from revaluation of a non-current asset. In this case the deferred tax is debited (deducted) from the revaluation surplus

(b) The need for deferred tax arises because of the temporary differences that exist between accounting rules for recognition of profits and the equivalent taxation rules. These differences potentially result in profits being recognised in the financial statements in accounting periods different from the period in which the entity is liable to pay tax on such profits, leading to a mismatch between the tax expense in the income statement and the profit against which it is being charged. The purpose of deferred tax is to alleviate this mismatch by recognising the tax effect of transactions in the period in which such transactions are recognised in the accounts rather than the period in which the tax effect actually crystallises in the tax computation.

(c) **Extract- Statement of profit or loss**

Tax expense K187 credit

Extract - Statement of financial position:
Non-current liabilities
Deferred tax liability K7,594

Working

	Carrying amount	*Tax base*	*Cumulative temporary difference*
	K	K	K
1.10.2015 Cost	180,000	180,000	0
30.9.2016			
Dep'n (K180 - K10)/10yrs	(17,000)		
Allowances K180,000 x 30%		(54,000)	
	163,000	126,000	37,000
30.9.2017			
Dep'n	(17,000)		
K126 000x 15%		(18,900)	
	146,000	107,100	38,900
30.9.2018			
Dep'n	(17,000)		
K107,100 x 15%		(16,065)	
	129,000	91,035	37,965

Hence,

		K
Required deferred tax liability at 30.9.2018 is K37,965 x 20%	=	7,593
Required deferred tax liability at 30.9.2017 was K38,900 x 20%	=	7,780
Required *reduction* in y/e 30.9.2018		187

DR Deferred tax liability
CR income tax expense

(Total: 20 Marks)

SOLUTION THREE

a) Mununga's statement of profit or loss for the year ended 31 March 2019

	K'000
Revenue (930,000 + 66,000 w3)	996,000
Cost of sales (w2)	(784,500)
Gross profit	211,500
Administrative expenses	(82,500)
Distribution costs	(58,500)
Operating profit	70,500
Finance costs (w5)	(3,744)
Profit before tax	66,756
Income tax (w7)	(7,200)
Profit for the year	59,556
	====

b) Mununga's statement of financial position as at 31 March 2019

	K'000
Non current assets	
Property, Plant and Equipment (w1 & w4)	199,200
Current assets	
Inventory	84,600
Receivables	99,300
Contract asset (w3)	51,300
Bank	16,500
Total current assets	251,700
Total assets	450,900
Equity and liabilities	
Equity shares of K0.50 ea	120,000
Retained earnings (W6)	167,456
Total equity	287,456
Non current liabilities	
Deferred tax	16,800
Lease liability	17,148
Total non current liabilities	33,948
Current liabilities	
Trade payables	100,200
Lease liability	15,396
Current tax payable	13,500
Dividend payable	400
Total current liabilities	129,496
Total equity and liabilities	450,900

WORKINGS

1. PPE

	LEASEHOLD PROPERTY	OWNED PLANT	ROU PLANT
	K'000	K'000	K'000
Cost/valuation	75,600	140,400	60,000
LESS ACCTD DEP'N		(38,400)	(15,000)
Carrying amount b/f	75,600	102,000	45,000
Depreciation expense	(5,400)	(25,500)	(15,000)
CA c/f	70,200	76,500	30,000
Revaluation surplus	4,500		
Valuation/ca c/f	74,700	76500	30,000

Total ppe (excluding specialist plant) 181,200.

2.

	COST OF SALES	ADMINISTRATIVE	DISTRIBUTION
	K'000	k'000	k'000
Per trial balance	703,500	82,500	58,500
DEP'N EXPENSE:			
Leased property	5,400		
Owned property	25,500		
Leased plant	15,000		
Contract (w3)	39,600		
Surplus on l/hold property	(4,500)		
	784,500	82,500	58,500

3. Construction contract – REVENUE

Overall profitability

Contract price	150,000
Cost to date	(36,000)
Cost to complete	(30,000)
Plant	(24,000)
Total estimated profit	60,000

% completion = VOW certified/contract price
K66 million/150 million x 100 = 44%

Profit and loss extract

Revenue ((44% x 150 million)	66 million	
Cos (44% x 90 million)	(39.6 million	
Profit	26.4 million	
Contract asset		
- Costs incurred to date	36,000	
- Dep of specialized asset (W4)	6,000	
- Profit	26,4000	68,400
- Less payment from customer		(17,100)
-		51,300

4. Depreciation of specialist plant = 24,000/2yrs x 6/12

CA = 24,000 – 6000 = <u>18,000</u>

5. Lease liability

	Bal b/f	interest 8%	rental	bal c/f
Year to 31.3.2019	46,800	3,744	(18,000)	32,544
Year to 31.3.2020	32,544	2,604	(18,000)	17,148

Finance cost for current year = 3,744
NC liability = 17,148
CLiability = 15,396

6. Retained earnings

Balance b/f	132,300
Profit for the year	59,556
Dividends paid	(24,000)
Dividends declared	(400)
	167,456

7. Current tax

Provision c/f	13,500
Add underprovision	2,100
Charge to profit/loss	15,600

Deferred tax

Provision c/f	16,800
Less provision b/f	(25,200)
Credit to profit/loss	(8,400)

Total charge 15600-8400 = 7,200

SOLUTION FOUR

(a)

	Formula	2018	2017
Gross Profit Percentage	Gross Profit x 100% / Sales	K1,677 ÷ K5,800 = 28.91%	K1,127 ÷ K3,990 = 28.25%
Net Profit Percentage	Net Profit x 100% / Sales	K970 ÷ K5,800 = 16.72%	K510 ÷ K3,990 = 12.78%
Current Ratio	Current assets / Current liability	K1,240 ÷ K702 = 1.76:1	K900 ÷ K570 = 1.58:1
Trade Receivable Days	Trade receivables x 365 / Sales	K460 ÷ K5,800*365 = 29 Days	K280 ÷ K3,990*365 = 26 days
Trade payable Days	Trade payables x 365 OR / Cost of sales Trade payables / Purchases	K400 ÷ K4,243*365 = 34 Days	K320 ÷ K2,823*365 = 41 Days
Return on Capital Employed	Profit before interest and Tax / Capital employed	K1,266 ÷ K4,148 = 30.52%	K824 ÷ K3,555 = 23.18%
Earnings per Share	Profit for the year / Number of shares	K970 ÷ K1,000 = K0.97	K510 ÷ K1,000 = K0.51
Price Earnings Ratio	Earnings per share / Market price per share	K12.00 ÷ K0.97 = 12.37	K6.20 ÷ K0.51 = 12.16

(b)

REPORT TO THE BOARD OF PROFED LTD ON COMPANY'S POSITION AND PERFORMANCE

To : Board of Directors – Profed Limited
From : Assistant Financial Accountant
Re : Company's Position and Performance
Date : December 2018

Gross Profit Percentage
The Gross Profit percentage has increased from 28.25% to 28.91%, an increase of over 2.33% which is a positive trend for the company. This is also positive for the fact that the company sales increased by over 45%. An increase of this magnitude presented a challenge for a company and the company has in the main responded positively to this challenge. The increase resulted from the fact that sales increased faster than Cost of Sales (44%). However, one should note that purchases increased at a slightly higher rate than sales and was offset by higher closing inventory.

	2016 K'000s	**2015 K'000s**	**% Increase**
Opening Stock	460	500	-8.00%
Purchases	4,243	2,823	46.16%
Closing Stock	(580)	(460)	26.09%
Cost of Sales	4,123	2,863	

Net Profit Percentage
The Net Profit % has increased from 12.78% to 16.72% which is an increase of nearly 31%. This is an extremely good performance. The main reason for the increase is due to the increase in Sales which has meant that the Gross Profit has increased from K1,127k to K1,677k, an increase of K550k. This increase has been offset to a degree by the increase in Admin Expenses of K92k which is an increase of just over 73%. This increase is high so the company needs to watch this cost going forward.

Current Ratio
This is less than the average of 2:1. However, the current ratio has increased by over 11.39% which is an improvement. The reason for the improvement is primarily due to the increase in Current Assets (up 37.78%) which in turn has been driven by the increase in inventory from K460k to K580k an increase of over 26%, increase in trade receivables of K180k (over 64% increase) and an increase in cash of K40k or 25%. The increase in trade receivables is not a great result as the sales increased by over 45% which would indicate that there may have been a problem collecting debts or else the company, to increase sales, had to sell to customers who demanded more credit from the company. However, if we were to look at Trade Receivables Days we would see that they increased by less than 12%, therefore, this level of increase is less than the increase in Sales. Given that the trend is negative, the company's collection of Trade Receivables should be pushed hard so that debts are collected as efficiently as possible and that Trade Receivables are brought back to levels of the previous year. Current Liabilities increased

by 23.16%. The main drivers of Current Liabilities were the increase in the Bank Overdraft of K117k, an increase of over 390%. The increase in the bank overdraft stems from the purchase of non-current assets as well as a decrease in the long-term debt and an increase in working capital. Trade Payables increased by K80k or 25% but this increase was mainly due to the decrease in accruals by K53k.

Trade Receivables Days
This has increased from 23 to 26 days, representing over 11% rise. Sales have increased by over 45% but this is no excuse for the deterioration in Trade Receivables Days. The company needs to ensure that the increase in Sales is not being fuelled by having customers who are demanding longer credit before they would purchase goods from PROFED Limited. Another possible reason is that the credit department could be poor in collecting debts but given the increase in Administrative Expenses, one would expect that the credit control department was adequately staffed to cope with the increased workload in collecting debts from having more sales.

Trade Payables Days
This decreased from 41 days to 35 days which; a decline of over 14.63%. This is not a good result given the fact that PROFED should be aiming for 45 days plus. With an increase in purchases, some of the supplier company's set limits on amount of stock they would sell before getting paid was affected and therefore, this meant that the Trade Payables days decreased. If we looked at 2015, the difference between time money was received from Trade Receivables and paid out to Trade Payables decreased from 15 days to 6 days which has obviously put pressure on the cash flow of the company

Return on Capital Employed
This has increased from 23.18% to 30.52%; i.e. an increase in percentage terms of nearly 32%. Again, this is a very positive result. The main driver of this increase is the increase above the line in the Profit Before Interest and Tax from K824k to K1,266k, an increase of K442 or 53.64%. Capital Employed also increased by K593k from K3,555k to K4,148k, representing 16.68%. The main increases here were in Non-Current Assets and Current Assets which have already been discussed.

Earnings per Share
This has increased in 2018 from 51% per share to 97% per share, representing over 90% rise. The improved Earning per Share is a positive development and is driven by an increase in profit registered by the company in 2018.

Price Earnings Ratio
This ratio has increased slightly from 12.16 to 12.37, an increase of 1.73%. Basically, what has happened is that the increase in EPS has been offset by the increase in share price from K6.20 to K12 euro. The current P/E ratio is at a healthy level and basically investors have become quite interested in the company and the profits the company were going to make and their interest has driven the price of the shares up significantly. (12 Marks)

[Total: 20 Marks]

SOLUTION FIVE

a)

(1) The amount that can be capitalised for this fish farm is as follows:

	K		K
Preparation of site	80,000	Yes	80,000
Annual maintenance once operational	30,000	no	
Vat on materials (recoverable)	120,000	no	
Staff training on correctly operating the fish farm once operational	25,000	no	
Import duty on materials purchased	28,000	Yes	28,000
Initial surveying of site	40,000	Yes	40,000
Project manager salary to build and manage the fish farm	140,000	Yes	140,000
Wages of employees to build the fish farm	300,000	Yes	300,000
Annual wages of employees once the fish farm is operating	100,000	no	
Testing costs	60,000	Yes	60,000
Materials purchased for fish farm net of vat	250,000	Yes	250,000
Discount received on materials purchased	33,000	Yes	33,000
Amount to be Capitalised			**865,000**

(2)

(i) Per paragraph 15 of IAS 16, at initial recognition, all items of PPE are recognised at cost.

(ii) Per paragraph 29 of IAS 16, two methods of valuing PPE after initial recognition are allowed i.e.

- Cost model i.e. PPE is carried at cost less accumulated depreciation and impairment losses.
- Revaluation model i.e. PPE is carried at a revalued amount.

The revalued amount is equal to the fair value at date of revaluation less subsequent accumulated depreciation and impairment losses.

(iii) FV

- IFRS 13 defines Fair Value a "the price that would be received to sell an asset or paid to transfer a viability in an orderly transaction between market participants at the measurement date". Fair Value market – based measurement, not an entity – specific measurement. It focuses on assets and vabilities and on exit (selling) prices. It also take into account market conditions at measurement date.
- From market based evidence by appraisal by professionally qualified valuers.

b) (i) Per paragraph 6 of IAs 16, it should be allocated over its useful life.

Per paragraph 51 of IAs 16, the residual value and the useful life of an asset shall be reviewed at least at each financial year end and if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with IAs 8 Accounting Policies, Changes in Accounting estimates and errors.

(ii) The depreciation amount is as follows:

	K
Cost	2,500,000
Accumulated depreciation	-500,000
Carrying Value b/d at 1st January 2018	2,000,000
Revaluation Gain	100,000
	2,100,000
Depreciation - buildings - note 1	-37,500
Carrying Value c/d at 31st December 2018	**2,062,500**

Note 1

Buildings - original Cost	2,500,000
Buildings - original Accumulated depreciation	500,000

Accumulated depreciation ÷ Cost = 20%

i.e. Building has been depreciated by 20% over 10 years (01.01.08 - 31.12.17) so annual rate of depreciation has been 2% i.e. 20% ÷ 10 years as asset has been depreciated evenly since acquisition. Therefore the original useful life is 50 years i.e. 100% ÷ 2% and the remaining useful life is 40 years.

To Calculate the new depreciation amount, we use the following depreciation formula:

[Revalued Cost of Asset – residual Value] ÷ Expected useful life of Asset
i.e. [2,100,000 – 52,500] ÷ 40 Years
Depreciation for 2018 = **K37,500**

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 11 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This Question is compulsory and MUST be attempted.

QUESTION ONE – (COMPULSORY)

Kapiri Trade Centre (KTC) is a privately owned company. It is running a brick making factory and also provides residential cookery courses to individuals and businesses across the country. It offers courses in both local and international cuisines for different meal dishes, among them the popular pizza flavor African Salamis. The company is currently collecting information for its budget for the six months ending 30 June 2019. The following information is available:

(i) Provisional bookings for courses

	January	February	March	April	May	June
Number of courses	0	2	4	3	4	4
Average number of attendees per course	0	16	8	16	8	12

No courses are run during the month of January. KTC requires customers to confirm their attendance in the week prior to the course, giving their credit card number as a guarantee. On average, 75% of provisional bookings are confirmed and therefore result in fee payment.

(ii) **Course prices**
Each course lasts for three days, running from Friday to Sunday, and the fee for each course is K2,004 per attendee. All courses have to be paid for in full on the first day of the course. Any returning customers are given a 25% discount on the fee. One in three of confirmed bookings is from a returning customer.

(iii) **Personnel costs**
KTC's courses are delivered by the experienced chef, John Daka. He is not a member of staff at KTC, but rather an outside contractor. John Daka charges KTC K5,010 for each course and is supported by his assistant, Penyani Nyirongo. John Daka pays his assistant a wage of K835 per course. KTC has several part-time support staff. Wages costs for January are only K1,670 per month, but every month thereafter they amount to K6,680. However, the company is planning to increase wages by 5%, from March. All staff are paid at the end of each month for that month's work.

(iv) **Property costs**
The business property comprises a small hotel, which includes an office and large kitchen. KTC rents the hotel at a rental cost of K40,080 per annum, with rents being paid quarterly in advance on 31 March, 30 June, 30 September and 31 December. However, the company has just received a notice from the landlord of the hotel, informing them that, with effect from 30 June 2019, annual rental payments will increase by 5%.

(v) **Capital expenditure**
KTC needs to replace its three ovens in February. The list price of these is K3,006 each but KTC's Managing Director is confident that he can obtain a 10% discount on this

price. The supplier has also allowed KTC to pay for the ovens in two equal instalments – one in February and another one in April.

(vi) **Bank account**
The balance on the company's bank account is expected to be zero on 31 December 2018; it currently has a sufficient overdraft facility to cover any cash deficit arising.

(vii) **Food costs**
All food purchased by the hotel is organic and delivered weekly by Health Foods, a local firm. On the 5th day of each month, KTC pays the bill for the previous month's food deliveries. However, in June, KTC is also required to settle its bill for June's food requirements due to the two-week holiday taken by Health Foods in July. Over recent months, the cost for food on each residential course (including ingredients used for cooking) has been K83.50 per attendee. However, due to lower availability of organic produce, inflation of 2% per month is expected to occur from March onwards. Food costs for December 2018 are expected to be K1,837 in total.

(viii) **General Overheads**
KTC's business rates are K13,944.50 per annum, paid in ten equal instalments from October to July each year. The company's fuel cost of K7,014 per annum is paid for by equal monthly direct debits. However, it has just come to the fuel supplier's attention that the direct debit failed to leave KTC's bank accounts in the months of July to October 2018 inclusive, due to a bank error. Therefore, the direct debit payment for January will also include the amounts owed for these months.

Required:

(a) Describe three benefits a company can obtain from implementing an effective budgeting system. (6 marks)

(b) Prepare a cash budget for Kapiri Trade Centre, on a monthly basis and totals, for the six month period commencing 1 January 2019, showing clearly the closing cash balance at the end of each month. (18 marks)

(c) Explain why the closing cash balance at the end of the six month period will be different to the net profit reported for the same six month period. (4 marks)

(d) At a recent board meeting Ms. Chiseyeni, the Director Finance, stated "that the time has come for the company to produce monthly management accounts". Mr. Hachibulo, the Managing Director, replied "that before such a decision would be made he needed more information about the benefits of committing to such an undertaking".

Required:

(i) Explain three (3) differences between financial accounting and management accounting. (6 marks)

(ii) Explain three (3) functions of management accounting. (6 marks)

[Total 40 Marks]

SECTION B

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

QUESTION TWO

J Co manufactures three products M, N and P that use the same machines. The budgeted income statements for the three products are as follows:

	M	N	P
	K per unit	**K per unit**	**K per unit**
Sales price	2,000	1,500	2,500
Prime costs	(1,000)	(750)	(1,750)
Variable overheads	(500)	(250)	(250)
Fixed overheads	(400)	(420)	(520)
Profit/(loss)	100	80	(20)
Annual sales demand (units)	50,000	75,000	25,000
Machine hours per unit	20	25	16

After the budget had been formulated, an unforeseen condition has meant that during the next period the available machine capacity has been limited to 2,965,000 hours. The Marketing manager of J Co has also disclosed that a one off contract had been agreed with a major customer to supply 70,000 units of product N during the next period at the current price. These units are included in the annual sales demand budget.

Required:

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

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

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

(d) Comment on other factors that J Co should consider before cancelling the major customer's contract. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Medical Electronics (ME) manufactures a range of high quality specialised medical equipment. Division Alpha of the company specialises in the production of the Microtronica.

The standard cost of producing one unit of the Microtronica is as follows:

Direct Materials	**Direct Labour**	**Overheads**
Material A 9kg @ K14 per kg	Skilled : 2.5hrs @ K23 per hr	V/Ohd: K7.5 per hour
Material B 3kg @ K11 per kg	Unskilled:1.5hrs@ K10 per hr	F/Ohd: K10.8 per hour
Sub assembly parts 46 sub-assemblies K148 per 100		

Division Alpha has budgeted to sell and produce 1,100 units in the six months to 31 December 2018 at a standard selling price of K546 per Microtonica.

The actual cost data has been recently compiled and is provided below:

Medics Electronics (Alpha Division)

Statement of Comprehensive Income for the 6 months to 31 Dec. 2018

				K
Sales	1,040 @ K550 per unit			572,000
Cost of sales		K	K	
▪ Material A	10,200kg x K14.40	146,880		
▪ Material B	3,020kg x K11.70	35,334		
▪ Subassembly parts	50,800 parts x K152/100	77,216		
			259,430	
▪ Skilled labour	3,020 hrs x K23.50	70,970		
▪ Unskilled labour	1,590 hrs x K9.80	15,582		
			86,552	
▪ Variable Overhead	K7.36 per hr	33,930		
▪ Fixed Overhead	K11.04 per hr	50,894		
			84,824	
▪ Total Cost of Sales				430,806
▪ Net Profit				141,194

N.B: Inventory levels remained constant in the period under review.

Required:

(a) Calculate the standard cost of the Microtronica. (3 marks)
(b) Calculate the flexed budgeted profit for the period. (2 marks)
(c) Calculate the following variances;
  1. Material mix (3 marks)
  2. Material yield (2 marks)
  3. Team composition (3 marks)

4. Team productivity (2 marks)

(d) State five (5) factors that should be taken into account before investigating a variance. (5 marks)

[Total : 20 Marks]

QUESTION FOUR

Candela Ltd (C Ltd) manufactures and sells two types of lighting models using similar manufacturing processes. The lighting models are the Morning Star (MS) and Sun Set (SS). Financial and operating statistics for C Ltd for the year to 31 December 2018 are as follows

Model	Production units	Machine hrs/unit	Variable cost/unit
MS	1,992	3hrs	K2,900
SS	2,540	3.6hrs	K2,508
Total sales	4,532		

The following notes are also relevant:

(i) Total costs for the year to 31 December, 2018 were K28,753,560.
(ii) Fixed overheads are absorbed into production units using machine hours.
(iii) Selling prices are determined by adding a mark-up of 10% to the budgeted total cost.

Required:

(a) Calculate the product cost per unit for each lighting model and the respective selling prices using the machine hours to absorb fixed overheads. (4 marks)

(b) The new management accountant is concerned that the lighting systems are not as profitable as they are supposed to be. Therefore, he has proposed the adoption of the activity based costing (ABC) technique for the allocation of the overheads.

After analysing the management accounting records, the management accountant has come up with the following additional data.

(i) Total fixed production overheads were analysed as follows:

Costs relating to set up Cost relating to material handling Costs relating to inspections	77% 13% 10%
Total overheads	100%

(ii) The following total activity volumes are associated with each lighting model.

Activity	Activity driver	MS	SS
Set ups	No. of set ups	1,500	1,000
Storage	No. of receipts	3,100	3,100
Quality control	No. of inspections	3,930	11,790

Required:

(i) Calculate the production cost per unit for each lighting model and the respective selling prices using the ABC technique to trace overheads to products. (8 marks)

(ii) Compare results of your calculated prices in (a) and (b) and then suggest with reasons what pricing decision you would recommend to C Ltd. (3 marks)

(iii) Explain how zero-based budgeting (ZBB) can overcome the problems that are associated with incremental budgeting. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Explain the following terms as used in process costing:

(i) Equivalent units (2 marks)
(ii) Normal losses (2 marks)
(iii) Abnormal losses and gains (3 marks)
(iv) By products and scrap (3 marks)

(b) JP makes three products from a single process. During November 2018 the inputs into the process were:

Direct materials - 10,000 kilograms at a total cost of;	K165,000
Direct labour –	K195,000
Factory overheads –	K210,000

Normal loss in the process is 10% and has a scrap value K150 per unit

The output in November 2018 was as follows:

Product A: 50%
Product B: 40%
Product C: 10%

Selling prices per kilogram for the products are:

Product A:	K900
Product B:	K562.50
Product C:	K750

Required:

Calculate separately, for November 2018, the joint costs to be apportioned to each of Products A, B and C based upon:

(i) The relative or proportional weight of output (4 marks)
(ii) The relative revenue arising from the sale of each product (6 marks)

[Total: 20 Marks]

END OF PAPER

CA2.2 MANAGEMENT ACCOUNTING SOLUTIONS

SOLUTION ONE

a) Benefits of an effective budgeting system

- *Planning:* budgeting facilitates planning for future operations as managers become aware of the long range objectives of the company. It also encourages managers to anticipate potential problems that may occur and plan their resolution.
- *Co-ordination:* there is better co-ordination of the various functions of the business as managers examine the operations of their departments relative to other departments.
- *Communication:* the budgeting process requires that all levels of the organisation are informed of long range plans, providing and receiving feedback throughout the budgeting process.
- *Motivation:* a budget, if it is realistic and prepared with the participation of managers, provides a standard of performance that managers will strive to achieve. However, if a budget is set by higher level managers and imposed on lower level managers it may be resisted and cause dissatisfaction and demotivation.
- *Control:* a budget assists managers in controlling the activities for which they are responsible by allowing them to compare actual performance with expected or budgeted performance. Any significant differences may then be investigated and inefficiencies highlighted for remedial action.
- *Performance evaluation:* a manager's performance may be evaluated by reference to how well budgeted results are achieved. Budgets thus allow managers to gauge how well they are meeting targets that they have been involved in setting

b) Cash Budget for the six months ended 30 June 2019.

	Jan	Feb	Mar	Apr	May	June
	K	K	K	K	K	K
Cash Inflows(w1-3)						
Course fees – new customers	-	32,064	32,064	48,096	32,064	48,096
Returning customers	-	12,024	12,024	18,036	12,024	18,036
Total cash inflows	-	44,088	44,088	66,132	44,088	66,132
Cash Outflows						
Tutor costs (w4)		10,020	20,040	15,030	20,040	20,040
Staff costs (w5)	1,670	6,680	7,014	7,014	7,014	7,014
Property costs (w6)	-	-	10,020	-	-	10,521
Food costs (w7)	1,837	-	2,004	2,044	3,127	5,378
General overheads (w8)	4,319	1,979	1,979	1,979	1,979	1,979
Capital expenditure (w9)	-	4,058	-	4,058	-	-
Total cash outflows	7,826	22,737	41,057	30,125	32,160	44,935
Net cash flow	(7,826)	21,351	3,031	36,007	11,928	21,197
Cash b/f	-	(7,826)	13,525	16,556	52,563	64,491
Cash c/f	(7,826)	13,525	16,556	52,563	64,491	85,688

Workings

1. Budgeted Attendees

	Jan	Feb	Mar	Apr	May	Jun
No. of courses	-	2	4	3	4	4
Prov. Attendees	-	16	8	16	8	12
Budgeted confirmed attendees per course@75%	-	12	6	12	6	9
Budgeted total attendees per month (no. of courses X confirmed attendees per course)	-	24	24	36	24	36

2. Budgeted fees from full-priced customers

	Jan	Feb	Mar	Apr	May	Jun
Standard fees (K)	-	2,004	2,004	2,004	2,004	2,004
No. of attendees for month paying standard fee (2/3)	-	16	16	24	16	24
Total full-priced fees (K)	-	32,064	32,064	48,096	32,064	48,096

3. Budgeted fees from returning customers

	Jan	Feb	Mar	Apr	May	Jun
Fees with 25% reduction (K)	-	1,503	1,503	1,503	1,503	1,503
No. of attendees for month paying reduced fee (1/3)	-	8	8	12	8	12
Total full-priced fees (K)	-	12,024	12,024	18,036	12,024	18,036

4. Tutor costs

	Jan	Feb	Mar	Apr	May	Jun
No. of courses	-	2	4	3	4	4
Cost per course (K)	-	5,010	5,010	5,010	5,010	5,010
Cost assistant (irrelevant –paid by John Daka) K		0	0	0	0	0
Total cost per month (K)	-	10,020	20,040	15,030	20,040	20,040

5. Staff costs

	Jan	Feb	Mar	Apr	May	Jun
(Increase of 5% from March)	1,670	6,680	7,014	7,014	7,014	7,014

6. Rental payments

Current quarterly payments = K40,080/4 =K10,020 per quarter.
From June, annual rent = K40,080 X 1.05 = K42,084.
Therefore, quarterly rent = K42,084/4 = K10,521 in June.

7. Food costs

	Jan	Feb	Mar	Apr	May	Jun
Budgeted attendees(w1)	-	24	24	36	24	36
Food cost per head (K)	-	83.50	85.17	86.87	88.61	90.38
Total food cost per month (K)		2,004	2,044	3,127	2,127	3,254
Payable one month later (K)	1,837	-	2,004	2,044	3,127	5,381*

*includes payment for May and June

8. General overheads

Business rates = K13,944.50 /10 = K1,394 for each of the six months.
Fuel = K7,014 /12 = K585 per month. In January, = K585 + (4 x K585) = K2,925.
Total = K4,319 for January. K1,979 for each month February to June inclusive.

9. Capital expenditure

Total cost = 3 x (K3,006 x 90%) = K8,116.
Half = K4,058 – payable in February and April.

(c) There are non-cash items in the Income statement, e.g. Depreciation and Provisional irrecoverable debt. Capital Expenditure is included in a cash budget. Taxation is included in a cash budget. There is a time lag in the settlement of receivables and payables, not reflected in the Income Statement.

(d) (i) There are a number of areas where management accounting differs from financial accounting:

Management Accounting	**Financial Accounting**
1. There is no legal requirement to prepare management accounts.	1. There is a legal requirement for companies to prepare financial statements.
2. Management accounting has an internal focus. It is designed to assist company managers in planning, controlling and decision-making activities.	2. Financial accounting has an external focus. It is designed to provide information to users who are external to an organisation.
3. Management accounting information may focus on many areas as required by the company.	3. Financial accounting focuses on the organisation as a whole.
4. The layout and substance of management accounting information is decided by company management.	4. Financial accounting information is presented in a format prescribed by law and by accounting standards
5. Management accounting information may include both monetary and non-monetary information.	5. Most financial accounting information is expressed in monetary terms.
6. Management accounting may be used for planning purposes and also for presenting	6. Financial accounting information provides information on what has happened in the past.

information on past and future activities.	
7. Management accounting information may be prepared daily, monthly, weekly etc. as required.	7. A detailed set of financial statements for a business is produced annually and in some cases less detailed financial information may be produced semi-annually.

(d) (ii) The functions of Management Accounting

Decision making

Management is decision taking. Managers of all levels within an organisation take decisions. Decision making always involves a **choice between alternatives** and it is the role of the management accountant to provide information so that management can reach an informed decision. It is therefore vital that the management accountant understands the decision-making process so that he or she can supply the appropriate type of information.

Planning

An organisation should never be surprised by developments which occur gradually over an extended period of time because the organisation should have implemented a planning process. Planning involves the following:

· Establishing objectives
· Selecting appropriate strategies to achieve those objectives

Planning therefore forces management to think ahead systematically in both the short term and the long term.

Control

There are two stages in the control process:
(a) The performance of the organisation as set out in the detailed operational plans and is compared with the actual performance of the organisation on a regular and continuous basis. Any deviations from the plans can then be identified and corrective action taken.

(b) The corporate plan is reviewed in the light of the comparisons made and any changes in the parameters on which the plan was based (such as new competitors, government instructions and so on) to assess whether the objectives of the plan can be achieved. The plan is modified as necessary before any serious damage to the organisation's future success occurs.

SOLUTION TWO

a) Calculation of contribution per unit and per limiting factor

Details	M	N	P
	K	**K**	**K**
profit/(Loss)	100	80	(20)
Add: Fixed cost	400	420	520
contribution	500	500	500
Machine hours per unit	÷20	÷25	÷16
Contribution per machine hour	**25**	**20**	**31.25**
Ranking	2nd	3rd	1st

	Hours
Available machine hours;	2,965,000
Make 25000 units of P using (16 hrs per unit x 25000)	(400,000)
Make 50,000 units of M using (20 hrs per unit x 50,000)	(1.000,000)
Balance	1,565,000

Units of N to be produced from balance; 1565,000/25 = 62600 units

Total maximum contribution at this production mix;

P (25,000 x K500 per unit)	K12,500,000
M (50,000 x K500 per unit)	K25,000,000
N (62600 x K500 per unit)	K31,300,000
Total contribution	**K68,800,000**

Part b

Additional units of N to be produced 7,400 units (70,000 units – 62,600 units)

Amounts of hours taken from production of M; 7,400 units x 25 units = 185000 hours

Lost contribution from M(185,000 hrs x K25 per hour)	(K4,625,000)
Extra contribution earned from N (185,000 hrs x K20 per hour)	K3,700,000
Maximum penalty to cancel contract	**(K925,000)**

Part c

Details	**M**	**N**	**P**
Budgeted units	50,000	75,000	25,000
Breakeven point units (Fixed cost/contribution per unit)	40,000	63,000	26,000
Margin of safety (budget units - breakeven)	10,000	12,000	(1,000)
Margin of safety %	20%	16%	(4%)

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

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

Part d

Other than the financial penalty, management of J Co should consider the following;

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

[Total = 20 marks]

SOLUTION THREE

(a) (i) Standard cost of Microtronica

		K
Material A =	9 kg x K 14	126.00
Material B =	3 kg x K 11	33.00
Sub- assembly parts =	0.46/100 x K 148	68.08
Labour – skilled =	2.5 x K 23	57.50
Unskilled =	1.5 x K 10	15.00
Variable overhead =	4hrs x K 7.50	30.00
Fixed overhead =	4hrs x K 10.80	43.20
Total standard cost per unit		372.78

(b) (ii) Flexed Budget profit

	K
Selling price	546.00
Less: Variable costs	329.58
Contribution per unit	216.42
Sales units	1,040
Total contribution	K 225,076.80
Less: Fixed overheads	(K 47,520.00)
Flexed profit	K 177,556.80

(c)

(i) Materials mix Variance

Standard mix proportion; A – 9/12 and B – 3/12

	A	B	Total
Actual mix	10,200	3,020	13,220
Standard	9,915	3,305	13,220
Variance in Kg	252 A	285 F	-
Standard price	K14	K11	
Variance	K3,990 A	K3,135 F	

(ii) Material yield variance

Standard yield proportion : 12kg to 1 unit

Standard production from actual mix of 13,220kg would be : 13,220 /12kg = 1,101.6

Variance: 1,101.6 units - 1,040 units = 61.6 (F) units

Standard material cost per unit is K159

Variance is 61.6 units x K159 = K9,794.40 (F)

(iii) Team composition (mix) variance

Standard mix proportion; Skilled 2.5/4 and unskilled 1.5/4

	A	B	Total
Actual mix	3,020.00	1,590.00	4,610
Standard	2,881.25	1,728.75	4,610
Variance in Kg	138.75 (A)	138.75(F)	-
Standard price	K23	K10	0
Variance	K3,191.24 (A)	K1,387.50 F	K1,803.75(A)

(iv) Team productivity (yield) variance

Standard yield proportion : 4 hours to 1 unit

Standard production from actual mix of 4,610 hrs would be : 4,610 /4 hrs = 1,152.5 units

Variance: 1,152.5 units - 1,040 units = 112.5 (A) units

Standard material cost per unit is K72.5 per unit

Variance is 112.5 units x K72.5 = K8,156.25 (A)

(d) Factors to take into account before investigating a variance

- **Materiality** – a small variance may not be worth of investigation
- **Controllability** –a variance may not be controllable even when the cause is established
- **Variance trend** – a variance that is becoming increasingly larger may be worthy of investigation even before it reaches predetermined limits.
- **Cost of an investigation** –if cost is greater than the benefit, do not investigate
- **Interrelationship between variances**. The cause of one variance may be partly or wholly explained by another variance.

SOLUTION FOUR

(a) Production cost per unit and selling prices using Absorption Costing.

	MS	SS
	K	K
Variable cost	2,900	2,508
Fixed overheads [K1,098.3 x 3/3.6]	3,295	3,954
Total cost per unit	6,195	6,462
Profit : 10% X K6,195/K6,462	620	646
Selling price	**6,815**	**7,108**

W.1 Fixed overheads

	K
Total costs	28,753,560
Less: Variable costs	
-MS: K2,900 x 1,992 =	(5,776,800)
- SS: K2,508 x 2,540 =	(6,370,320)
Total fixed overheads	16,606,440

W.2. Machine hours and FOAR

MS: 3hrs x 1,992 = 5,976

SS: 3.6hrs x 2,540 = 9,144

Total machine hours 15,120

$$\text{FOAR} = \frac{K16,606,440}{K15,120hrs} = \mathbf{K1,098.31/hr}$$

(b) Production cost per unit and selling prices using ABC

	MS	SS
	K	K
Variable cost	2,900	2,508
Fixed overheads	4,602	2,929
	7,502	5,437
Profit: 10% x K7,502/K5,437	750	544
Selling price	**8,252**	**5,981**

W.3: Fixed Overheads Analysis

		K
Set ups costs	77% X K16,606,440 =	12,786,959
Storage	13% x K16,606,440 =	2,158,837
Quality control costs	10% x K16,606,440 =	1,660,644
		K16,606,440

W.4: Overheads cost per Unit

Activity	Share Basis	MS (K)	SS (K)	Total overhead (K)
Set ups	1500:1,000	7,672,175	5,114,784	12,786,959
Storage	3,100 :3,100	1,079,418	1,079,419	2,158,837
Quality control	3,930:11,790	415,161	1,245,483	1,660,644
		9,166,754	7,439,686	16,606,644
		÷	÷	
Production units		1,992	2,540	
Overhead per Unit		K4,602	K 2,929	

(ii) The traditional pricing method that is based on machine hours does not take into consideration the activities that drive costs. The cost drivers are identified from activity based information. The cost of manufacturing the Morning Star (MS) has risen to K8,252 under ABC whereas the cost of the Sun Set model has fallen to K5,981 per model.

The price of K7,108 charged for SS model under the absorption costing method exceeds the cost of K5,981 calculated using ABC. In fact, it is possible that the company is losing sales opportunities for the SS model, as their prices are very high compared to the prices that are charged by the competitors before making a final decision on pricing. On the basis of the information currently available, the company should decrease the price of their SS model and increase the price of the MS model.

(iii) **Incremental budgeting** is based on the previous period's budget, adjusted for current period changes – for example, a cost budget may be increased by 4% to account for inflation of material prices. The main disadvantage of incremental budgeting is that any inefficiencies in the previous year's budget remain in the current year. Any budgetary slack already built into the budget will be maintained. This can lead to **wasteful spending** as managers strive to hit their inefficient targets to justify their inclusion in the first place.

Zero based budgeting (ZBB) builds the budget from zero and justifies each item of cost from scratch. This requires detailed analysis of a company's activities, and leads to the identification of inefficient activities, thus preventing the inclusion of budgetary slack. It should also encourage more efficient spending- ie only on activities that have been fully justified.

SOLUTION FIVE

(a)
(i) Equivalent units: A term applied to the work-in-progress inventory at the end of an accounting period. It is the number of completed units of an item that could have theoretically been completed given the amount of direct materials, direct labour and manufacturing overhead costs incurred during that period for items not yet completed.

(i) Normal losses: The expected amount of loss in a process. It is the level of loss or waste that management would expect to incur under normal operating conditions.

(iii) Abnormal losses: The amount by which actual losses exceeds the expected or normal loss in a process. It can also be defined as the amount by which actual production is less than normal production.
Abnormal gains: The amount by which actual losses are less the expected or normal loss in a process. It can also be defined as the amount by which actual production is more than normal production.
(iv) A by-product is an **incidental product** from a process which has an **insignificant value** compared to the main product(s). In the timber industry, for example, by-products include sawdust, small offcuts and bark

Scrap is **'discarded material** having some **value**'. Revenue from scrap is treated, **not as an addition** to sales revenue, but as a **reduction in costs**.

(b) (i) Calculate apportionment by weight of output

Total joint costs (165,000 + 195,000 + 210,000 – (K150/kg x 1,000kg)) = K420,000

	K
Product A (420,000 x 50%) =	210,000
Product B (420,000 x 40%) =	168,000
Product C (420,000 x 10%) =	42,000
	420,000

(ii) Calculate apportionment arising from sale of each product

	K
Sales revenue Product A = (9000 x 50%) x K900 =	4,050,000
Sales revenue Product B = (9000 x 40%) x K562.50 =	2,025,000
Sales revenue Product C = (9000 x 10%) x K750 =	675,000
	6,750,000

Relative joint product costs therefore:

	K
Product A (4,050,000/6,750,000) x 420,000	252,000
Product B (2,025,000/6,750,000) x 420,000	126,000
Product C (675,000/6,750,000) x 420,000	42,000
	420,000

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 13 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:
   Section A: One (1) Compulsory scenario question.
   Section B: Four (4) Optional 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>

Lion Plc. is in the manufacturing industry and employs thirty (30) full time employees and engages casual workers as need arises.

Lion Plc. has been your firm's audit client for three years. The audit for the financial statements of Lion Plc. for the year ended 31 December 2018 is in progress. The Audit Senior assigned to this audit has suddenly left employment and you have been assigned to complete the audit.

You have called a meeting with the rest of the audit team with a view to confirm adherence to ethical issues.

A review of the working papers left by the Audit Senior who left employment has revealed that he did some preliminary work on assessing the risk of material misstatement through understanding the entity and its environment. There is evidence that he recorded the system of Lion Plc. using Internal Control Evaluation Questionnaires (ICEQs) but there is no evidence to suggest that he performed walk through tests.

Lion Plc. largely uses the services of casual workers and the following system for employing and paying casual workers was recorded.

A maximum of ten (10) casual workers are engaged on a daily basis depending on the need for extra labor. A request for engaging casual workers is made on a daily basis and this is authorized by the Human Resources Manager.

The casual workers are paid weekly, based on the number of hours worked. Each worker logs in when he/she reports for work by swiping on reporting for work. In order to ensure compliance with the legal requirements that workers should not be employed as casual employees for a period exceeding six months, individual employment cards are maintained which record the period that the employee has been employed as a casual employee.

At the end of the shift the workers swipe out and the system computes the number of hours worked. The Foreman maintains a manual record of casual workers under their supervision and keeps a record of actual hours worked. At the end of the week the computer summary of the hours worked is printed and given to the Foreman who compares the hours with the manual hours he maintains. The Foreman signs on the printout as confirmation that the hours are correct.

The signed print out is passed on to the Wages Clerk. Based on the signed printout by the Foreman, the Wages Clerk computes the weekly wages. The weekly wages listing is then passed on to the Senior Accountant who approves the listing.

The Senior Accountant prepares a payment voucher for the net pay payable and prepares a cheque in his name for the amount. The funds withdrawn are given to the Cashier who is responsible for paying the casual workers. The Cashier signs for receipt of the cash from the Senior Accountant.

Workers are paid on Friday and they are required to sign for receipt of the money.

Required:

(a) (i) Distinguish between walk through tests and tests of control that are undertaken by the auditors. (4 marks)

(ii) Recommend two (2) other methods of recording the accounting and control systems of Lion Plc. and state two (2) advantages of each method. (6 marks)

(b) (i) Identify and explain five (5) internal controls in the wages system of Lion Plc. (5 marks)

(ii) Recommend five (5) tests of controls (relating to internal controls in (b) (i) above) that should be carried out on the wages system of Lion Plc. (5 marks)

(c) Explain four (4) advantages of principle based guidance rather than rule based guidance of professional codes of ethics. (6 marks)

(d) Explain four (4) financial statement assertions relating to the figure wages in the financial statements of Lion Plc. (4 marks)

(e) (i) Explain the need for auditors to be regulated. (4 marks)

(ii) Discuss how regulation of auditors is carried out in Zambia. (6 marks)

[Total: 40 marks]

SECTION B

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

(a) Buffalo Plc. is a manufacturing company which has been in existence for many years.

The equipment used in manufacturing has not been replaced since the Company's inception and there has been an increase in maintenance costs in the last few years. Bufallo Plc. uses coal to fire the furnace. Under pressure from environmentalists, the government recently passed a law banning the use of coal as a source of energy. All companies using coal have been given a one year grace period in which to change from the use of coal to the use of cleaner energy sources.

In view of the high investment required in this industry, a Chinese company has opted to bring in finished goods in the country. This company is able to land these goods at half the cost of production of Buffalo Plc. The relevant government agencies have allowed this company to start operating in an effort to reduce monopoly and allow for competition in the best interest of consumers.

Buffalo Plc. has experienced a loss of senior and experienced staff and it has proved difficult to replace them. In the last six months the Chief Engineer left and the Finance Manager has given notice of his intention to leave employment. Buffalo Plc. has experienced problems replacing the Chief Engineer.

Your firm of Chartered Accountants is auditor of Buffalo Plc. and the audit for the year ending 31 December 2018 is nearing completion.

You are evaluating the ability of Buffalo Plc to continue as a going concern in line with the provisions of ISA 570 (Revised) *Going concern*. Further, you are planning the work that should be undertaken after the year end as part of the finalization of the audit. According to the audit plan, you are supposed to conclude the audit and sign the audit report on 15 March 2019.

Required:

(i) Identify and explain four (4) indicators of going concern problems facing Buffalo Plc. (6 marks)

(ii) Discuss the duty of your firm of Chartered Accountants between 1 January 2019 and 15 March 2019 in accordance with ISA 560 *Subsequent events*.

(4 marks)

(b) Rhino Ltd is one of your firm's audit clients. You are in charge of the audit of the financial statements of Rhino Ltd.

You assigned Neo, a Senior Audit Assistant, to identify and assess the risks of material misstatements of the financial statements in accordance with ISA 315 (Revised) *Identifying and assessing the risks of material misstatement through understanding the entity*.

The following risks were identified by Neo:

1. The business that Rhino Ltd is involved in is highly regulated. Rhino Ltd has an Internal Legal Advisor who is responsible for ensuring that the company is compliant with the laws and regulations that apply to it.

   Neo is of the view that there is a risk of non-compliance with the laws applicable.

2. Over 60% of the customers of Rhino Ltd are credit customers. The company does not have a policy on extending credit to customers and in the past substantial amounts of receivables have been written off.

   This increases the risk that receivables may be overstated and provisions understated.

3. The remuneration of executive directors is performance based. The directors get a bonus on meeting the set targets.

   This poses the risk of fraudulent financial reporting by management so that higher bonuses are earned.

4. Rhino Ltd borrowed $500,000 three years ago and offered its production plant as collateral for the loan. The loan is due for payment in the next few months but the liquidity of the company is poor and there is no indication that Rhino Ltd will pay its first installment.

   There is a risk that Rhino Ltd will fail to repay the loan when it matures and there is a risk that the security for the loan may be enforced.

5. In order to reduce on the risk of bad debts, Rhino Ltd has introduced a policy requiring customers who purchase goods above a specified threshold to pay a deposit before goods are supplied.

It was observed that at the end of each month there are orders paid for but not fulfilled by Rhino Ltd. Advance payments received pose a risk that revenue may be misstated.

Required:

Discuss the possible responses that your firm will take with regard to the risks identified and evaluated at the planning stage of the audit of Rhino Ltd. (10 marks)

[Total: 20 marks]

QUESTION THREE

You are the Audit Senior in the audit of the financial statements of Giraffe Ltd for the year just ended.

You have called for a pre-audit meeting with all the members of the audit team. The following are among the matters that you wish discussed in the meeting.

1. The objective of the audit is to test for errors and omissions in the financial statements with a view to detect material misstatements.

2. The use of directional testing in the performance of the audit. In this way you will not need to test the same items for both over and understatement.

3. The assessed high risk of inventory being misstated in the financial statements of Giraffe Ltd.

   Inventory is a material figure in the financial statements of Giraffe Ltd. Any misstatement in the value of inventory will have an immediate impact on profitability.

Required:

(a) Discuss the approach that your firm will take in order to test for errors and omissions in the financial statements of Giraffe Ltd. (4 marks)

(b) Describe the use of directional testing by auditors. (4 marks)

(c) Explain four (4) audit procedures that should be performed in the audit of inventory in Giraffe Ltd stating the assertion being tested. (6 marks)

(d) List and describe the work you will carry out to determine inventory which should be valued at net realizable value (NRV). (6 marks)

[Total: 20 Marks]

QUESTION FOUR

You are the Training Manager in Chintu & Associates a firm of Chartered Accountants.

You are arranging a training session for newly recruited audit seniors of your firm. The objective of the training is to appraise the staff on the revisions to the standards on audit reports.

The following information will be used in the case study that will be used in the training session:

Impala Ltd is an old client of your firm. In evaluating continuation with existing clients, the Partner in Charge of clients has recommended that your firm resigns from being auditor of Impala Ltd. The main reason for the recommendation that the firm resigns is ethical and borders on loss of independence due to the long association with Impala Ltd.

Your firm has been approached by Sable Ltd to offer audit services to it.

Required:

(a) Explain the use of the following paragraphs of the audit report:

(i) The going concern paragraph (2 marks)
(ii) Key Audit Matters paragraph (2 marks)
(iii) Other information paragraph (2 marks)

(b) Advise Chintu & Associates on the procedure that should be followed with regard to the intended resignation. (4 marks)

(c) State and explain the elements of the assurance engagement that will be entered into with Sable Ltd. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Corporate governance codes require that listed companies should have a Board of Directors which is responsible for overseeing the operations of executive management.

The Board of Directors should have a balance of executive and non-executive directors.

Required:

(i) Distinguish between executive and non-executive directors of the Board of Directors. (4 marks)

(ii) Discuss the roles that the non-executive members of the Board of Directors can play. (6 marks)

(b) Your firm of Chartered Accountants has grown from being a one partner firm to a firm with six partners and has offices in three different locations.

You are the Partner in Charge of quality at one of the offices of your firm. Annually you carry out a client continuance assessment. You are also responsible for client acceptance.

In the current year you have the following situations:

Antelope Plc. is a publicly listed company and is an old client of your firm. In your evaluation on whether you should continue with the assurance engagement in the coming year you discover that Antelope Plc. recently acquired shares in a company in which the firm has shares.

Warthog Ltd has written to your firm following the recent tender for audit services, that your firm has been nominated to be auditor of Warthog Ltd.

Your firm is currently offering non-audit services to Warthog Ltd which include the preparation of the financial statements of Warthog Ltd. The income for the firm from the non-audit services is 19% of the total income of your firm.

The only Audit Manager of your firm who will most likely be assigned to the audit of Warthog Ltd if accepted recently worked for Warthog Ltd as Finance Manager.

Required:

(i) Recommend the action that your firm will take in deciding whether to continue with the Antelope Plc engagement. (3 marks)

(ii) Evaluate and state the action your firm will take regarding your firm's nomination by Warthog Ltd. (3 marks)

(iii) Explain how high percentage of fees of an audit client and a recent service with an assurance client by a member of the audit team poses a threat to the independence of the auditor. (4 marks)

[Total: 20 marks]

END OF PAPER

CA 2.3 AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS

SOLUTION ONE

a) i. Distinction between walk through tests & tests of control:

Walk through tests:
These are tests performed by the auditor with a view to confirm the system that he has recorded during the risk assessment that is carried out at the planning stage of the audit. It involves following transactions through the recorded procedure to confirm that the system has been correctly recorded.

Tests of control:
These are tests carried out by the auditor to test the effectiveness and operation of the internal controls set by management. The objective of performing tests of control is to determine their effectiveness and subsequent reliance by the auditor on the internal controls.

ii. Methods of recording accounting and control systems:

Narrative notes – This is the method where the auditor writes down in narrative form the matters gained an understanding of during risk assessment. This could be manually done or in modern business environment can be electronically done.

Advantages:

- Considered simple to record.
- Can be used for any system that is being recorded including non-routine systems.

Flowcharts – this is the use of graphic illustrations of the physical flow of information through the accounting system.

Advantages:

- They can be quickly prepared with experience.
- They are easy to follow and to review.
- They eliminate the need for extensive narrative.

Internal Control Questionnaires (ICQ) – This involves recording a system through asking a series of questions designed to determine whether desirable controls are present in each of the major transactions cycles.

Advantages:

- If well drafted they can ensure all controls are considered.
- With experience, they are easy and quick to prepare.
- They are considered easy to use and control.

Checklists – Is the use of statements about the system which are completed on each of the major transaction cycles. They are completed by ticking if in agreement.

Advantages:

- They are easy to use.
- Easy responses from the client can be obtained.
- Can be used for all the major transaction cycles of the business.

b) i. & ii. Internal controls & tests of control in wages system of Lion Plc.

- **Authorization of engagement of casual workers:**
  The control in the employment of casual workers is the authorization by the Human Resources Manager.

  Test of control:
  For a sample of casual employees engaged, examine the engagement documentation and the authorization by the Human Resource Manager.

- **The requirement that workers should log in:**
  The requirement that the casual workers are required to swipe when they report for work and when they leave is a control to ensure that only bona fide employees are paid for work done.

  Test of control:
  Observe casual workers swiping in and out of the work place.

- **Maintenance of individual employment cards:**
  The maintenance of individual record cards for all casual workers and the checking of the cards is a control to avoid employing a worker for more than six years contrary to legal requirements.

  Test of control:
  Review record cards for a selection of casual workers previously engaged and confirm signed for checking as appropriate.

- **Comparison of system worked hours & manual hours by the Foreman:**
  The comparison of the hours based on swiping in and out and the actual hours observed by the Foreman is a control activity to avoid paying casual workers for work not done.

Test of control:
For a sample of time sheets generated by the system, confirm that comparisons have been made by the Foreman and this is evidenced in writing by the Foreman signing.

- **Approval of weekly wages by Senior Accountant:**
  Approval of the wages computed by the Senior Accountant is a control to avoid errors going undetected.

  Test of control:
  Examine a sample of wages computed in the past and confirm that they have been approved by the Senior Accountant as required.

- **The Cashier signing for cash passed on:**
  The Cashier signs for receipt of the net pay from the Senior Accountant. The signing is meant to acknowledge receipt of the money and also to avoid a dispute on the money received.

  Test of control:
  Review a sample of weekly cash withdrawals and trace to the funds being given to the Cashier and confirm that all cash handed over was signed for.

c) Advantages of principle based guidance:

- They are not rigid as is the case with rule based guidance. The professional considers relevant factors in applying the principles.
- Rules based principles can easily be interpreted narrowly in order to go around the guidance.
- Situations that the professional meets are different and so principles can be adapted to suit different situations which is not the case with rule based principles which tend to be rigid.
- Principles can easily adapt to different situations and a fast changing environment in which auditors operate. Changing rules has to be done in accordance with the law and is a much slower process.
- Approach can include examples of how principles should be applied which can be used by the professionals in dealing with individual situations.

d) Financial statement assertions for wages:

Occurrence & existence – The payments for wages and salaries relate to work that has been performed by bona fide employees of the company.

Completeness – All payroll costs incurred in the period under review have been accounted for in the financial statements.

Accuracy – The payroll costs recognized in the financial statements have been accurately computed in line with supporting data.

Cut-off – The payroll transactions have been recorded in the correct accounting period particularly around the period end.

e) i. Need for auditor regulation:

Auditors provide assurance to the shareholders on the financial statements. The assurance given is based on work that has been done which should be done in accordance with auditing standards.

Auditors require to be regulated in order to ensure that they carry out their work in accordance with auditing standards and that they meet the professional ethical standards throughput the audit.

In the absence of regulation, there is a risk that the auditors will not carry out efficient audits and this may bring into question the reliability of the reports issued.

ii. Regulation of auditors in Zambia:

The Zambia Institute of Chartered Accountants (ZiCA) is the regulator of auditors.

This is in accordance with the Accountants Act 2008 and this is carried out as follows:

- ZiCA issues practicing licenses to practitioners before they can be allowed to conduct audits. Practicing licenses are only issued to practitioners with relevant qualifications and experience.
- Annually ZiCA approves the renewal of licenses for practitioners who meet the requirements.
- ZiCA has the power to discipline erring members.
- ZiCA has an Inspectorate Department which checks on the operations of practitioners in order to ensure that they are compliant in the performance of their work.

SOLUTION TWO

a) i. Indicators of going concern in Buffalo Plc:

The new regulation banning the use of coal:
The new regulation banning the use of coal as a source of energy has an adverse impact on the operations of Buffalo Plc. unless the company replaces the existing equipment with equipment that does not require the use of coal, the operating license of Buffalo Plc may be withdrawn and this is a going concern matter.

Cheaper Chinese competitor entering the market:
The entry into the market of the Chinese company which is able to land the product at less than the production cost of Buffalo Plc. This will result in loss of income for Buffalo Plc and with the existing financial problems being faced this may affect the ability of the company continuing to operate.

Loss of senior employees & failing to replace them:
The loss of senior staff and failing to replace them is an operational issue for Buffalo Plc. It may prove difficult to replace the leavers and this will have an adverse impact on the operations of the company.

Lack of financial resources to maintain and replace equipment:
Liquidity problems being experienced to an extent that the company is unable to maintain its equipment, is a going concern issue. Due to the fact that the company is experiencing cash flow problems, it is unlikely that the company will have sufficient funds to continue maintaining the existing equipment in the next one year and also be able to replace the equipment before the expiry of the grace period that has been given.

ii. Duty of auditors between 1 January 2019 and 15 March 2019:

ISA 560 gives guidance to the auditors on their responsibilities with regards subsequent events.

The auditors have an active duty to perform procedures between the financial period and the date of signing the audit report.

The auditor is required to identify events after the period end and determine the correctness of the accounting treatment.

The auditor should look out for adjusting and non-adjusting events and discuss them with management to confirm correct accounting treatment. Where they have not been correctly accounted for the auditor will request management to adjust the financial statements.

b) **Possible responses to identified risks:**

Risk 1:- Risk of non-compliance with laws & regulations:
There is a risk of Rhino Ltd being non-compliant with the rules and regulations applicable to it.

The audit response expected is for the audit team members to be alert throughout the audit and look out for any evidence of non-compliance with laws and regulations by Rhino Ltd.

There will be need to discuss with the internal legal advisor of Rhino Ltd and establish the controls that exist to prevent and detect any non-compliance that may arise. Further, it will be necessary to obtain written representations from management on their views on compliance with laws and regulations.

Risk 2:- Risk of uncollectable receivables:
The lack of a credit control system could result in most of the credit receivables being uncollectable. This could result in the misstatement of the receivables figure in the financial statements.

The response expected is that the firm should circularize a sizeable number of the receivables and obtain third party evidence.
Further a review of post year end receipts of the receivables will help confirm the realizability of the receivables balances at the period end.

Risk 3: - Performance related pay for executive directors:
The incentive is for executive directors to misstate the financial statements so that they meet the set targets and receive their bonuses.

The response that will be taken will be for the audit team to remain alert at all times to indications of fraudulent financial reporting. Further, more work will need to be carried out with regards to any figures that are accounting estimates on the part of management.

Risk 4: Loan nearing maturity with no funds available for repayment:
The failure to repay the loan could have going concern implications for Rhino Ltd.

The response to this risk is to examine the loan agreement to determine the conditions of the loan particularly with regards the collateral against the production plant.

Risk 5: - Advance payments by credit customers
The risk here is that revenues may be misstated to the level of the advance payments made by credit customers.

The audit response is to evaluate the treatment of the advance payments. Until goods are supplied, the advance payments should be treated as payables and not revenue.

There is need to review how long it takes before goods are supplied based on advance payments. There is need to obtain a schedule of the breakdown of the balance of advance payments and ensue correctly accounted for as payables at the period end.

SOLUTION THREE

a) Audit approach to test for errors:

In order to test for errors in the financial statements, the approach that will be taken by the auditor is to extract the sample from the accounting records.

The auditor will then examine the related documentation to confirm whether or not the amount has been misstated.

Audit approach to test for omissions:

When testing for omissions, it means that the auditor is targeting to establish if there are any omissions in the amounts stated in the financial statement.

In testing for omissions, the approach that the auditor will take will be to start from outside the accounting system. This is because if a transaction or an amount is omitted, it will not be recorded in the financial statements.

For example if the auditors wish is to test for omission of a receipt of inventory, the starting point is to extract samples from Goods Received Notes and then trace them to the accounting records. This way if one of them has not been recorded and is missing in the accounting records this method will detect that.

b) Directional testing and its use in auditing:

Directional testing is the use of the double entry book keeping system by the auditors in determining the extent of tests that should be undertaken on the same transaction.

Transactions and balances are tested for understatement and overstatement.

Ideally all debits and credits should be tested for both under and overstatement. Using the principle of directional testing, the auditors are able to test assets and expenses for overstatement only and by so doing they are testing the corresponding credit entry for overstatement as well. Similarly the primary test for liabilities and income is for understatement resulting in the testing of the related asset or expense account being tested for understatement as well.

Through this method it will be observed that assets/expenses and liabilities/income have been tested for both over and understatement.

c) Audit procedures & assertions to test inventory:

Accuracy & Valuation – Review the client's workings for the valuation of inventory and ensure that inventory is valued at the lower of cost and net realizable value. For a sample of stock items confirm the cost and net realizable amounts used in the valuation.
Examine prices at which inventory held at the period end is sold post year end.

Existence – Attend the inventory count and confirm that it is done in accordance with inventory count instruction and can be relied upon as a basis for determining existence of inventory.
Further, conduct test counts during the inventory count and compare the results with the counts performed by the client staff.

Cut-off – Review receipt and issue of inventory at either side of the year end and confirm that they are recorded in the correct period. Make use of the last and first GRN numbers and sales invoice numbers recorded during the inventory count.

Classification – Ensure that inventory is correctly classified as finished goods, work in progress and components by examining a sample of inventory lines and ensuring correctly classified.

Completeness – Confirm that all inventory counted is included in the final inventory sheets and also obtain third party confirmation for inventory held by third parties.

Rights and obligations – To confirm that the inventory included in the financial statements belongs to the client company. This will be verified by reviewing procedures for excluding inventory held for third parties and how these were identified and excluded during inventory count.

Presentation – Confirm that disclosures on method used to value inventory is appropriately disclosed and that disclosures of inventory held are appropriate.
There will be need to read the notes to the financial statements to confirm that disclosures are adequate.

d) Audit work to determine inventory which should be valued at NRV:

- Review the stock take instructions of the client and evaluate the instructions with regards identifying obsolete and slow moving stocks.
- Observe the inventory count and ensure that the instructions are adhered to during the inventory count.
- Review the inventory valuation for a sample of inventory items and confirm the net realizable value used in the computations.
- Review post year-end sales for a sample of inventory lines and determine the net realizable value to establish if it is lower than cost.

SOLUTION FOUR

a) i. Going concern paragraph:

IAS 570 gives guidance to the auditor with regards going concern.

This is a paragraph in the auditor's report which the auditor uses when he has concerns with regards to the ability of the client company continuing as a going concern.

The matter of concern will be described in this paragraph which will be titled 'Material uncertainty related to going concern'.

ii. Key Audit Matters paragraph:

ISA 701 Gives guidance in the area of Key Audit Matters.

This paragraph is used by the auditor to report on significant matters that the auditor faced during the audit the course of the audit. Using his professional judgment the auditor will select significant matters from those that he had communicated to those charged with governance.

The Key Audit Matters paragraph is mandatory in the audit reports of listed companies and optional for other entities.

iii. Other information paragraph

ISA 720 gives guidance to the auditor in this area.

This is the paragraph where the auditor reports on other information contained in the financial statements. For listed companies, it is a requirement that the Other information paragraph forms part of the audit report.

Briefly the paragraph will specify the management and auditor responsibility for other information.

b) Resignation procedure by Chintu & Associates:

- The firm should deposit a written notice of the resignation together with a statement of the circumstances that led to the resignation.
- A statement of the circumstances should be sent to the regulatory authorities and to everyone who is entitled to receive a copy of the accounts.
- The firm can require that Impala Ltd convenes an extraordinary meeting at which the circumstances of the resignation will be discussed.

c) Elements of an assurance engagement:

The mnemonic **CREST** can be used in remembering the five elements of an assurance engagement as follows:

Criteria – This is the basis upon which the financial statements are measured. For example financial statements prepared in accordance with the Company's Act 1994 and the international financial reporting standards, these comprise the criteria used in auditing financial statements.

Report- This is the outcome of the audit and it contains the audit opinion. At the end of the audit the auditor issues a report to the shareholders.

Evidence – Is any information obtained by the auditor in supporting the audit work that has been performed. Audit evidence does not include the financial statements prepared by management.

Subject matter – These are the financial statements that are the subject of the assurance engagement. The auditors give assurance on the subject matter.

Three party relationship – These are the three parties to an assurance engagement namely the shareholders, management and the auditor.

SOLUTION FIVE

a) i. **Distinction between executive & non-executive directors:**

A balanced board of directors should comprise a mixture of executive and non-executive directors.

The distinction between executive and non-executive directors is as follows:

Executive directors:

These are directors who also have executive responsibilities in addition to being board members.

For example the Chief Executive Officer who is responsible for running the company but also sits on the board.

The executive directors lack the independence required to make objective contributions in board meetings.

Non-executive directors:

These are directors who do not have any executive responsibilities in that they do not take part in the day to day running of the company. The only connection that non-executive directors have with the company is that of being directors.

Because of their independence that they have, non-executive directors are able to give an independent view of the affairs of the company and they will contribute without fear of reprisals.

ii. **Role of non-executive directors:**

Non-executive directors bring in an independent view in board discussions and they also bring in external expertise that they have to the organization.

Non-executive directors comprise membership of board committees as follows:

The audit committee – best practice requires that the audit committee, which is responsible for advising the rest of the board on financial matters, should comprise non-executive directors. Having executive committee members would result in the committee reviewing its own work.

The remuneration committee – This is the committee responsible for determining the remuneration of the executive directors and their management.

b) i. Action with regards acceptance of the audit of Antelope Plc.:

The acquisition of shares by Antelope Plc in a company in which the firm has shares brings about a self-interest threat to the firm.

This will result in the firm and the client Antelope Plc having a close business relationship. This will affect the independence of the firm in performing the assurance engagement of auditing Antelope Plc.

Safeguards:

The options available to the firm to deal with this threat include:

- Disposing of the interest that the firm has in the company in which Antelope Plc. has acquired shares or
- To end the assurance provision of audit services to Antelope Plc.

ii. Action with regards nomination by Warthog Ltd:

The firm is currently offering non-audit services to Warthog Ltd through the preparation of financial statements.

The nomination by Warthog Ltd that the firm should also undertake audit of the financial statements will result in a self-review threat to the auditors. This can result in the auditors reviewing the financial statements that they have prepared and so are unlikely to be independent and objective.

Unless the firm can apply suitable safeguards, it should decline the appointment as auditor and could also stop offering the non-audit service of preparing the financial statements and remain with the assurance provision only.

Suitable safeguards that may be applied if firm will offer both assurance and non-assurances services:

- Use separate teams to perform the assurance service and another to prepare the financial statements.
- Put in place quality control procedures so that the work is independently reviewed by someone who was not involved in the audit work.

iii. High percentage of fees:

The current fees for non-audit services provided to Warthog Ltd at 19% shows that the firm relies on this client. If the firm accepts appointment to provide assurance services to Warthog Ltd this will result in overreliance on one client as the income from this one client will increase much above the recommended threshold of 15%.

When the firm relies on one client, it means that the firm would not like to lose his client. As such the firm will not want to do anything that will displease the client for fear of losing the audit. This fear will affect the independence and objectivity of the auditor.

Audit Manager recent service with Warthog Ltd:

When a member of the assurance team was recently employed by the client company this brings about self-review threat and familiarity threats.

A **self-review** threat arises in that the Audit Manager worked in a senior position. Most likely he would have been involved in determining some of the figures in the financial statements and also he would have been involved in setting up of the systems and controls. It is unlikely that the manager will criticize the work that he did when he was working for Warthog Ltd. He lacks independence and hence objectivity.

A familiarity threat arises in that he recently worked for Warthog Ltd. Familiarity is a threat to the independence of the auditor in that the people to be audited are known and friends to the auditor. He would not want to injure friends that he is familiar with from the past relationship as a fellow employee.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.4: TAXATION

THURSDAY 13 JUNE 2019

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 sections:

   Section A: ONE (1) Compulsory Question.
   Section B: Four (4) Optional Questions. Attempt any THREE (3) questions.

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

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

5. **Cell phones** are **NOT** allowed in the examination room.

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

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

8. Present legible and tidy work.

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

10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

Taxation Table

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to 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 –	Standard wear and tear allowance	25%
	Used in manufacturing and leasing	50%
	Used in farming and agro-processing	100%

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	29.55
From 50 to 63 passengers	9,000	24.60
From 36 to 49 passengers	7,200	19.50
From 22 to 35 passengers	5,400	15.00
From 18 to 21 passengers	3,600	9.90
From 12 to 17 passengers	1,800	4.95
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 the realized value on the transfer of intellectual property	5%
Rate of Tax on Realised Value on a transfer or sale of a mining right	10%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged less than 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 less than 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 less than 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.

<u>QUESTION ONE</u>

Ncwala Plc is a company engaged in manufacturing. The company was incorporated, and commenced its operations in 2005. In January 2019, the directors estimated the provisional taxable profit for the company for the tax year 2019 to be K15,600,000. However the Directors revised the provisional taxable profit to K10,200,000 in February 2019 following the loss of a major customer to one of the company's major competitors.

The company made a profit before tax, as per accounts, of K14,288,200 for the year ended 31 December 2019. The profit figure of K14,288,200 was arrived at after taking into account the following items:

(1) Investment income which included rental income of K136,000 (gross), Treasury bill interest of K34,000 (net), dividends K62,000 (net), and copyright royalties of K36,000 (gross). Withholding tax in each case was paid on the appropriate due dates.

(2) Profit on sale of office equipment of K32,500. The office equipment had a net book value of K57,500 and an income tax value of K40,000. It was sold for K90,000.

(3) Wages and salaries of K24,605,000. Included in this figure is an annual salary for the Chief Executive Officer (CEO) of K680,000, employee's pension benefits of K1,340,000 and employee's funeral grants of K340,000. The company has accommodated the CEO in a company owned house which currently has a market value of K1,200,000.

(4) Entertainment expenses which included K34,500 incurred in entertaining major customers, K16,500 incurred on entertaining employees at the end of year party and K9,500 incurred on a special dinner for the company's major suppliers.

(5) Professional and legal fees which included the following:

	K
Legal fees in connection with an issue of K1 preference shares	23,500
Legal fees for trade debt collection	26,400
Legal fees for recovery of loans from former employees	16,500
Legal fees in connection with an action brought against a supplier for breach of contract	32,000
Fees in connection with acquisition of new lease of business premises	16,800
Accountancy, audit and taxation fees	420,000
	535,200

(6) Bad debts expenses which included trade debts written off K280,000, decrease in specific provision K46,000, increase in general provision K18,500, loans to former employees written off K88,000 and trade debts previously written off now recovered K75,000.

(7) Miscellaneous expenses which included:

	K
Distribution expenses	709,400
Depreciation of tangible non-current assets	287,600
Amortisation of intangible assets of	54,000
Advertising	26,600
Gifts to employees (Food hampers costing K200 each)	8,000
Gifts to customers (Ncwala Plc branded coffee mugs costing K30 each)	6,000
	1,091,600

Additional information:

(i) **Buildings**

At 1 January 2019, the company held buildings which were constructed and brought into use in the previous tax year (i.e. the tax year 2018) at a total cost of K2,500,000. This comprised land with a cost of K500,000, general offices of K180,000, staff canteen with a cost of K120,000 and factory building with a cost of K1,700,000.

(ii) **Implements, plant and machinery**

On 1 January 2019, the Income Tax Values of implements, plant and machinery were as follows:

	K
Mitsubishi Canter Van (Original cost K120,000)	90,000
Pool car (original cost K80,000)	16,000
Office equipment (original cost K80,000)	40,000

During the year ended 31 December 2019, the following purchases and disposals of assets took place:

Date		Cost/(Proceeds)
		K
4 March 2019	Purchased Toyota Hilux van (single cab)	150,000
14 June 2019	Purchased Jeep Grand Cherokee motor car	280,000
16 July 2019	Purchased Toyota Fortuner motor car	270,000
18 August 2019	Purchased new manufacturing equipment	650,000
12 October 2019	Sold office equipment	(90,000)
20 December 2019	Sold pool car	(25,000)

The pool car was used in the operations of the marketing department but it had private use of 25% by the company's Marketing Manager and had a cylinder capacity of 1,800 cc. The Jeep Grand Cherokee motor car is the Managing Director's personal to holder motor car and it has a cylinder capacity of 3,000 cc. The Toyota Fortuner motor car is the Finance Director's personal to holder motor car and it has a cylinder capacity of 2,600 cc.

Required:

(a) State the date when Ncwala Plc was required to submit the return of provisional income tax in respect of the tax year 2019 and explain the consequences of submitting the return late. (3 marks)

(b) Compute the amount of the provisional income tax paid by the company during the tax year 2019, stating the due date for each instalment. (4 marks)

(c) Calculate the following values for Ncwala Plc for the tax year 2019:

(i) The capital allowances on buildings (6 marks)

(ii) The capital allowances on implements, plant and machinery (8 marks)

(d) Compute the final taxable business profit after capital allowances for Ncwala Plc for the tax year 2019. (12 marks)

(e) Compute the Income tax payable by the company for the charge year 2019. (7 marks)

[Total: 40 Marks]

SECTION B

Attempt any three (3) questions in this section.

QUESTION TWO

Muyunda has been in business for many years, preparing accounts annually to 31 December. His businesses include a retail trade and farming. The annual turnover from each of these businesses has always exceeded K800,000. He is also employed as an agricultural extension officer on a part time basis.

For the tax year 2019, the final trading results from his businesses were as follows:

	K
Taxable profit from retail trading	520,000
Taxable profit from farming	1,100,000

The following information is available:

Note 1: Income from retail trading

The taxable profit from retail trading shown above is the final taxable results after capital allowances.

Note 2: Income from farming businesses

The taxable profit from farming shown above is the final taxable results after capital allowances.

On 1 January 2019, there was an unrelieved tax loss from farming amounting to K250,000. This loss had been incurred in the tax year 2018.

Muyunda has decided to make an irrevocable election to have the tax loss of K250,000 suffered in the tax year 2018, averaged against the final taxable profit from farming of K1,100,000 made in the tax year 2019. Provisional income tax paid in respect of the tax year 2019 is K127,000.

Note 3: Income from part-time employment

Muyunda's taxable employment income for the tax year 2019 was K120,000 (gross). Pay As You Earn deducted from the employment income in the tax year 2019 was K45,000.

Note 4: Investment income:

Muyunda received the following investment income from the investments he holds:

	K
Fixed deposit interest from Bank ABD	K8,400 (gross)
Dividends from FMN Ltd, a private company	K17,000 (net)
Copyright royalties	K51,000 (net)

Note 5: Other information:

During the tax year 2019, Muyunda made the following disposals of assets:

(1) On 15 February 2019, he sold a five acres of land for K500,000. This was the amount before deduction of estate agent fees of 2% of the sales value. He acquired the land from a traditional leader for K100,000 in the year 2010. The plot did not have any drawings and therefore, there was no value determined by the government valuations department.

(2) On 10 March 2019, he sold a low cost house for net proceeds of K427,500 to an unconnected third party after deducting estate agents fees of 5% of the sales value. The house had been valued at K430,000 according to the latest report obtained from the Government of the Republic of Zambia.

(3) On 25 March 2019, he bought 10,000 ordinary shares of K1 each at a price of K5.00 each in FMN Ltd, a private Limited. The shares in FMN Ltd were valued at K8 per share on that date using share valuation methods approved by the Commissioner General.

(4) On 30 June 2019, he sold a farm tractor for K50,000 to an unconnected third party. The amount of K50,000 is after deducting the agent's fee of K2,000. He bought the tractor in July 2017 at a cost of K90,000.

(5) Muyunda gave a plot of land valued at K50,000 to his nephew who had just graduated from University to enable him construct his own house. He made the gift on 20 July 2019 and the nephew did not give any consideration to Muyunda. He bought the plot in November 2010 and a cost of K20,000.

Required:

(a) Explain the circumstances under which income from farming may be averaged. (2 marks)

(b) Prepare a computation of the final amount of income tax payable by Muyunda for the tax year 2019. (10 marks)

(c) Explain the Property Transfer Tax implications of each of the transactions in note (5) that Muyunda undertook in the tax year 2019. Your explanations MUST state the realised value and MUST include calculations of the amount of Property Transfer Tax paid where applicable. (8 marks)

[Total: 20 Marks]

QUESTION THREE

Mildred and Rachael are in partnership sharing profits and losses in the ratio of 3:2 respectively after allowing for annual partnership salaries of K60,000 for Mildred and K72,000 for Rachael. The partnership accounts are prepared annually to 31 December.

For the tax year 2019, the partnership's amount of provisional income was K550,000 and based on this figure, the partners paid provisional income tax on the appropriate due dates. This amount of provisional income was the partnership's budgeted tax adjusted profit after capital allowances.

The partnership statement of profit or loss for the year ended 31 December 2019 was as follows:

	Note	K	K
Gross profit			1,255,200
Add other income:			
Profit on disposal of shares			19,680
Total Income			1,274,880
Less expenses:			
Motor car expenses	(1)	28,000	
Salaries	(2)	134,000	
Entertaining customers		26,000	
Entertaining Suppliers		30,000	
Depreciation		34,000	
Legal and professional fees	(3)	176,000	
Labour day awards for employees		68,000	
Rent and rates	(4)	30,000	
Theft of money by employee		6,200	
Donation to a political party		5,000	
Advertising		2,000	
			(539,200)
Net profit			735,680

Notes

(1) **Motor car expenses**

The motor car expenses were incurred in respect of the cars used by Mildred and Rachael. It has been agreed with the Commissioner General that the business use by each individual of each car is 75%.

(2) **Salaries**

Salaries consist of employees' salaries of K100,000, employer's NAPSA contributions of K10,000, and partner's pension contributions of K24,000.

(3) **Legal and professional fees**

These comprise of the following:

	K
Accounting and audit fees	116,000
Costs in connection with new 60 year lease	30,000
Costs of defending title to business assets	28,000
Unsuccessful Appeal against previous year's income tax assessment	2,000
Total	176,000

(4) **Rent and Rates**

One quarter of the expenditure on rent and rates relates to rent paid for the houses occupied by Mildred and Rachael.

(5) **Capital Allowances**

The partnership's capital allowances for the tax year 2019 on partnership assets have been calculated as K216,400.

Required:

(a) Calculate the provisional income tax paid by the partners for the tax year 2019. (6 marks)

(b) Compute the final taxable partnership profit for the tax year 2019. (6 marks)

(c) Calculate the final income tax payable by the partners for the tax year 2019. (8 marks)

[Total: 20 Marks]

QUESTION FOUR

Catherine Mwiza intends to commence business on 1 January 2019. Most of her suppliers are likely to be registered for Value Added Tax (VAT). She will register her business as Mwiza General Dealers and open a retail outlet in one of the following business sectors:

(1) Where all the supplies she will make will be zero rated for VAT purposes or;
(2) Where all the supplies she will make will be standard rated for VAT purposes or;
(3) Where all the supplies she will make will be exempt for VAT purposes.

Her estimated sales for the year ended 31 December 2019 are K900,000, excluding VAT. She is considering applying for VAT registration immediately, where applicable. In any of the three sectors that Mwiza is considering, her VAT inclusive purchases and expenses are expected to be K464,000 for the year ending 31 December 2019. All the purchases and expenses will be directly attributed to her supplies in each respective sector.

Mwiza would like to find out the VAT implications, if she were to trade in a sector where she would make both taxable and exempt supplies and incur overheads that would not be directly attributed to neither taxable nor exempt supplies.

She has decided to seek advice from her tax consultant before commencing the business.

Assume you are the tax consultant for Mwiza and that she has come to your office asking for your advice on the VAT implications of her proposed business.

Required:

(a) Explain to Mwiza whether, she will be required or be permitted to register for VAT in each of the three business sectors, and outline the tax consequences of being registered for VAT. (8 marks)

(b) For each of the business sectors that are being proposed, calculate the amount of VAT payable or repayable for the tax year 2019. (6 marks)

(c) Explain how the recoverable input VAT on overheads would be calculated for a trader who makes a mixture of taxable and exempt supplies. (3 marks)

(d) Assuming that Mwiza was to register for VAT on 1 January 2019 and that her VAT payable for January 2019 was K15,400, advise her of the tax implications (if any) of submitting her January VAT return and payment of the January VAT on the 20 February 2019. The Bank of Zambia discount rate is 17.75% (3 marks)

[Total: 20 marks]

QUESTION FIVE

QP Mining Ltd is a Zambian resident mining company that is engaged in the extraction and sale of copper. QP Mining Ltd is wholly owned by a consortium of non-Zambian resident multinational companies and therefore, the company prepares its financial statements in United States Dollars and then translates them into Zambian Kwacha.

The following information relates to QP Mining Ltd:

QP MINING LTD

STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2019

	K
Sales Revenue (Note 1)	98,000,000
Cost of Sales	(39,588,000)
Gross Profit	58,412,000
Operating expenses (Note 2)	(25,560,000)
Investment income (Note 3)	488,000
Profit before taxation	33,340,000
Company income tax (4)	(5,835,852)
Profit for the financial year	27,504,148

Notes

(1) The figure for sales revenue in the statement of profit or loss above represents the gross sales of copper based on the average London Metal Exchange cash price, which was above $12,000 throughout the tax year 2019. Mineral royalty was properly calculated and accounted for.

(2) Included in operating expenses is expenditure amounting to K760,000 incurred on drilling boreholes in the local mining township, K440,000 incurred on rehabilitation of the sewerage and drainage system in the local mining township and K90,000 incurred on the repair and installation of the street lighting system in the mine township.

(3) Investment income comprises fixed deposit interest earned amounting to K108,000 and dividends received from shares held in non-mining companies amounting to K380,000. These were the gross amounts earned in all cases; withholding tax was deducted at source.

(4) The company income tax shown in the statement of profit or loss above represents the provisional company income tax paid by the company in respect of the tax year 2019.

(5) The company has had the following results in recent years:

Year ended 31 December	2016	2017	2018
	K	K	K
Tax adjusted mining profit/ (loss) before loss relief	(21,200,000)	16,380,952	14,680,000

(6) The following Zambian Kwacha per US Dollar (K/ US$) average mid-exchange rates have been provided by the Bank of Zambia and approved by the commissioner General:

Year ended	Mid Exchange rate
	K/ US$
2016	10.50
2017	10.00
2018	9.45
2019	9.60

(7) Mining losses may be indexed using the formula:

Indexed loss = $1 + \frac{(R2-R1)}{R1}$ x Mining loss brought forward

(8) The only capital assets used in mining qualifying for capital allowances at 1 January 2019, was mining equipment which had an income tax value of K1,500,000 with an original cost of K3,000,000. This equipment had been acquired from within Zambia and paid for in Zambian Kwacha.

Required:

(a) Show how the loss incurred in the year ending 31 December 2016 will be relieved in each of the tax years 2017 and 2018 and compute the revised final taxable profits for each of the tax years 2017 and 2018. (6 marks)

(b) Compute the taxable business profits for the tax year 2019 and compute the total income tax payable by the company for the tax year 2019. (14 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.4 TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) The due date is 31 March 2019.

If the return is submitted late then the penalty will be 2000 (K600) penalty units per month or part thereof.

(b)

Revised estimated taxable profit	10,200,000
Provisional income tax (K10,200,000 x 35%)	3,570,000
Provisional income tax payable pay quarter K3,570,000 /4	892,500

Due dates	Amount payable
10 April 2019	892,500
10 July 2019	892,500
10 October 2019	892,500
10 January 2020	892,500

(c) (i) QUALIFYING COST FOR INDUSTRIAL BUILDING ALLOWANCE (IBA) PURPOSES

The total construction cost is K2,500,000 – K500,000 = K2,000,000.

10% of K2,000,000 is K200,000.

The cost of the general offices is K180,000 which is below this and will therefore be classified as an industrial building.

COMPUTATION OF CAPITAL ALLOWANCES ON BUILDINGS

	K
General offices	
wear and tear allowance (K180,000 x 5%)	9,000
Staff canteen	
wear and tear allowance K120,000 x 5%	6,000
Factory	
wear and tear allowances K1,700,000 x 5%	85,000
	100,000

(ii) CAPITAL ALLOWANCES ON IMPLEMENTS, PLANT AND MACHINERY

		Capital allowances
Mitsubishi Canter Van	K	K
Wear and tear allowance		
(K120,000 x 25%)		30,000
Pool Car		
Income Tax Value b/f	16,000	
Disposal	(25,000)	
Balancing charge	(9,000)	(9,000)
Office equipment		
Income Tax Value b/f	40,000	
Disposal (restricted to original cost)	(80,000)	
Balancing charge	(40,000)	(40,000)
Toyota Hilux van		
Wear and tear allowance		
K150,000 x 25%		37,500
Jeep Grand Cherokee Motor car		
Wear and tear allowance		
K280,000 x 20%		56,000
Toyota Fortuner Motor car		
Wear and tear allowance		
K270,000 x 20%		54,000
Manufacturing equipment		
Wear and tear allowance		
K650,000 x 50%		325,000
Total capital allowances		453,500

NCWALA Plc

(d) COMPUTATION OF TAXABLE BUSINESS PROFIT

	K	K
Profit before tax		14,288,200
Add		
Accommodation benefit:		
(30% x K680,000)	204,000	
Entertaining major customers	34,500	
Entertaining suppliers	9,500	
Legal fees - issue of preference shares	23,500	
Fees for recovery of loans from former employees	16,500	
Legal Fees - acquisition of new lease of premises	16,800	
Increase in general provision	18,500	
Loans to former employees written off	88,000	
Depreciation	287,600	
Amortisation	54,000	
Personal to holder motor car benefits:		
- Managing Director's Jeep (3000cc)	40,000	

- Finance Manager's Toyota Fortuner (2600cc)	30,000	
		822,900
		15,111,100
Less		
Rental income	136,000	
Treasury bill interest	34,000	
Dividends	62,000	
Copyright royalties	36,000	
Profit on sale of office equipment	32,500	
Capital allowances on buildings	100,000	
Capital allowances on IPM	453,500	
		(854,000)
Taxable business profit		14,257,100

(e) NCWALA Plc COMPUTATION OF COMPANY INCOME TAX PAYABLE FOR THE CHARGE YEAR 2019

	K
Business profit	14,257,100
Treasury bill interest (34,000x 100/85)	40,000
Copyright royalties (K30,600 x 100/85)	36,000
Taxation income	14,333,100
Company income tax 14,333,100x35%	5,016,585
Less Tax already paid:	
Provisional income tax	(3,570,000)
(K10,200,000 x 35%)	
WHT on Treasury bill interest 40,000x 15%	(6,000)
WHT on copyright royalties (K36,000 x 15%)	(5,400)
Final Company income tax payable	1,435,185

SOLUTION TWO

(a) Income from farming may be averaged if:

(1) It is for two consecutive tax years and it is such that one year's income is substantially greater than the income of the other year; or

(2) One year has a loss while the other has a profit.

(b) MUYUNDA
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	Total	*Non-farming*	*Farming*
	K	K	K
Average Profit from farming			
(K1,100,000 + K0)/2	550,000		550,000
Less loss b/f	(250,000)		(250,000)
Taxable farming profit	300,000		300,000
Profit from retail trade	520,000	520,000	
Employment income	120,000	120,000	
Gross royalties			
(K51,000 x 100/85)	60,000	60,000	
	1,000,000	700,000	300,000
Less tax-free income	(39,600)	(39,600)	
	960,400	660,400	300,000
Tax on non-farming income:			
25% × K9,600		2,400	
30% × K25,200		7,560	
37.5% x K625,600		234,600	
		244,560	
Tax on farming income:			
10% × K300,000		30,000	
		274,560	
Less tax already paid:			
PAYE		(45,000)	
Withholding tax			
(15% × K60,000)		(9,000)	
Provisional income tax		(127,000)	
Final income tax payable		93,560	

(c) The Property Transfer Tax implications are as follows:

(1) The sale of the land for K500,000 on 15 February 2019 is a transfer of property with a realized value of K500,000.

Property Transfer Tax paid:

5% x K500,000 = K25,000

(2) The sale of a low cost house by Muyunda is a transfer of property that has a realised value that is equal to the higher of the actual sales proceed and the open market value. The actual sales price before deducting the agent's fees is the realised value because it is higher than the open market value. The realised value will therefore be:
K427,500 x 100/95 = K450,000

Property Transfer Tax paid

5% x K450,000 = K22,500

(3) The purchase of shares in a private limited company does not result in a liability to Property Transfer Tax. This is because Muyunda is a buyer of the shares. Property Transfer tax is paid by the seller (The transferor) of property.

(4) The sale of a Tractor is not a transfer of property for the purposes of Property Transfer Tax. There is therefore no realized value since there is no transfer of property and Muyunda is not required to pay Property Transfer Tax.

(5) The gift of a plot of land by Muyunda to his nephew is a transfer of property that has a realised value of KK50,000 as a nephew is not an immediate family member.
Property Transfer Tax paid

5% x K50,000 = K2,500

SOLUTION THREE

(a) MILDRED AND RACHAEL

PROVISIONAL INCOME TAX PAYABLE FOR THE TAX YEAR 2019

	Total	Mildred	Rachael
	K	K	K
Salaries	132,000	60,000	72,000
Balance 3:2	418,000	250,800	167,200
Total	550,000	310,800	239,200
Income tax computation			
K39,600 @ 0%		0	0
K9,600 @ 25%		2,400	2,400
K25,600 @ 30%		7,560	7,560
Excess: K236,400 x 37.5%		88,650	
K164,800 x 37.5%			61,800
Provisional tax paid		98,610	71,760

MILDRED AND RACHAEL

(b) COMPUTATION OF THE FINAL TAXABLE PARTNERSHIP PROFIT

	K	K
Net profit as per accounts		735,680
Add:		
Rent and rates ¼ x 30,000	7,500	
Appeal against tax assessment	2,000	
Partners pension contributions	24,000	
Entertaining customers	26,000	
Entertaining suppliers	30,000	
Depreciation	34,000	
Legal fees in connection with lease	30,000	
Donation to political party	5,000	
Motor expenses K28,000 X 25%	7,000	
		165,500
		901,180
Less:		
Profit on disposal of shares	19,680	
Capital allowances	216,400	
		(236,080)
Final taxable profit		665,100

(c) MILRED AND RACHEL

COMPUTATION OF INCOME TAX PAYABLE FOR THE TAX YEAR 2019

	Total	Mildred	Rachael
	K	K	K
Salaries	132,000	60,000	72,000
Balance 3:2	533,100	319,860	213,240
Total	665,100	379,860	285,240
Income tax computation			
K39,600 @ 0%		0	0
K9,600 @ 25%		2,400	2,400
K25,600 @ 30%		7,560	7,560
Excess 37.5% x 305,460		114,547.5	
37.5% x 210,840			79,065
Income tax liability		124,507.5	89,025
Less: Provisional Income tax		(98,610)	(71,760)
Income tax payable		25,897.5	17,265

SOLUTION FOUR

(a) Advice to Mwiza regarding VAT registration:

(1) If Mwiza commenced in business in a sector where all her supplies will be zero rated for VAT purposes, she will be permitted to register for VAT because zero rated supplies are taxable supplies and the turnover of these supplies excluding VAT is expected to exceed the registration limit of K800,000 for a twelve months period.
(2) If Mwiza commenced in business in a sector where all her supplies will be standard rated for VAT purposes, she will be required to register for VAT because her VAT exclusive taxable turnover is expected to exceed the registration limit of K800,000 for a period of twelve months.
(3) If Mwiza commenced in business in a sector where all her supplies are exempt supplies for VAT purposes, she will not be required to register for VAT because traders who make exempt supplies cannot register for VAT.

If Mwiza was to register for VAT, the consequences would be as follows:

(1) She will required to issue a tax invoice for all supplies she makes.
(2) She will be required to charge VAT on all taxable supplies that she makes.
(3) She will be required to recover input VAT where applicable.
(4) She will be required to file VAT returns and pay VAT by the 16th day of every month in respect of the previous month.

(b) VAT computations for the tax year 2019

(1) If Mwiza commenced a business in a sector where all her supplies are zero rated

	K
Output tax	
K900,000 x 0%	0
Less recoverable input tax	
K464,000 x 4/29	(64,000)
VAT repayable	(64,000)

(2) If Mwiza commenced a business in a sector where all her supplies are standard rated

	K
Output tax	
K900,000 x 16%	144,000
Less recoverable input tax	
K464,000 x 4/29	(64,000)
VAT payable	80,000

(3) If Mwiza commenced in business in a sector where all her supplies are exempt supplies, she will not charge VAT and she will not be able to recover her input VAT. Therefore, she will not have any VAT payable or repayable.

(c) Persons who make a mixture of taxable and exempt supplies are partially exempt for Value Added Tax purposes. They can only recover input VAT on supplies made to them and if that VAT is attributable to the taxable supplies made by them. Therefore they cannot recover in full the input VAT that is incurred on overheads since overheads are not directly attributed to any specific type of supply.

In order to attribute input VAT to the taxable supplies, various methods are used. One of the methods that can be used is the one where the basis of apportionment is the turnover of the supplies made. The formula that is used is as follows:

Recoverable non-attributable input VAT

$$= \frac{\text{VAT exclusive taxable turnover}}{\text{Total VAT exclusive turnover}} \times \text{input VAT on overheads}$$

Alternatively solution:

In order to attribute input VAT to the taxable supplies, various methods are used. One of the methods that can be used is the one where the basis of apportionment is the percentage of turnover of the supplies made. The percentage is calculated as follows:

$$\frac{\text{VAT exclusive taxable turnover}}{\text{Total VAT exclusive turnover}} \times 100\%$$

The recoverable input VAT = percentage calculated above x input VAT on overheads

(d) If Mwiza submitted the January 2019 VAT return on 20 February 2019 and also paid the January 2019 VAT on 20 February 2019, then she would have delayed the submission of the VAT return and the payment of VAT by 5 days, running from the due date of 16 February 2019 to the date of payment of 20 February 2019. The consequences would be as follows:

(1) For late submission of the return, the penalty would be
= 1,000 penalty units x 5 days
= 5,000 penalty units

Alternative solution
For late submission of the return, the penalty would be:
= K300 x 5 days
= K1,500

(2) For late payment of VAT, the penalty would be
= 0.5% x K15,400 x 5 days
= K385

There would also be interest on overdue tax as follows:
= (17.75% + 2%) x K15,400 x 5/365
= K42

SOLUTION FIVE

(a) QP Mining Ltd

COMPUTATION OF THE FINAL TAXABLE PROFITS FOR THE TAX YEARS

	2016	2017	2018
	K	K	K
Tax adjusted mining profits	Nil	16,380,952	14,680,000
Loss relief	Nil	(8,190,476)	(7,340,000)
Final taxable profit	Nil	8,190,476	7,340,000

Working
Indexation of mining losses

Tax Year 2017	K
Indexed mining loss brought forward	
K21,200,000 x [1+(10-10.5)/10.5]	20,190,476
Loss relief in the tax year 2017	
Restricted to: 50% x K16,380,952	(8,190,476)
Unrelieved loss carried forward	12,000,000
Tax Year 2018	
Indexed mining loss brought forward	
K12,000,000 x [1 + (9.45 – 10.00)/ 10.00]	11,340,000
Los relief in the tax year 2018	
Restricted to 50% x K14,680,000	(7,340,000)
Unrelieved loss carried forward as at 31 December 2018	4,000,000

(b) QP Mining Ltd

Computation of taxable profit and company income tax payable for the tax year 2019

	K	K
Profit before tax		33,340,000
Add:		
Mineral Royalty (K98,000,000 x 10%)	9,800,000	
Cost of drilling boreholes	760,000	
Sewerage system rehabilitation cost	440,000	
Cost of repair and restoration of street lighting system	90,000	
		11,090,000
		44,430,000
Less:		
Fixed deposit interest	108,000	
Dividends received	380,000	
Deductions for mining capital expenditure:		
Cost of drilling boreholes		
25% x K760,000	190,000	
Sewerage system rehabilitation cost		
25% x K440,000	110,000	
Cost of repair and restoration of street lighting system		
25% x K90,000	22,500	
		(810,500)
Tax adjusted profit		43,619,500
Less capital allowances on mining equipment		
Wear and Tear Allowance		
25% x K3,000,000		(750,000)
		42,869,500
Less mining loss brought forward		
K4,000,000 x [1 + (9.60 – 9.45)/ 9.45]		(4,063,492)
Final taxable mining profit		38,806,008
Company Income Tax		
Mining Profit		
K38,,806,008 x 30%		11,641,802
Fixed deposit interest		
K108,000 x 35%		37,800
		11,679,602
Less tax already paid		
Provisional Company Income Tax		(5,835,852)
Withholding Tax on Interest		
15% x K108,000		(16,200)
Company Income Tax Payable		5,827,550

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 14 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

Jumbe Ltd is considering replacing three of its record –pressing machines with one machine which has just come on to the market. The three existing machines are two years old and cost K1.5 million each. They are being depreciated on a straight - line basis over twelve years. It was expected that their final scrap value would be K600,000 each. Their replacement is being considered because a fault has developed in their operation which can only be corrected at a total cost of K5 million for the three machines.

The annual operating costs of the existing and new machines as follows:

Existing machines: costs per machine

	K'000	K'000
Materials		60,000
Labour: One operator at 1800 hours		1,350
Variable expenses		925
Maintenance (Excluding exceptional items)		2,000
Fixed expenses:		
Depreciation	75	
Fixed overheads absorbed	2,700	
		2,775
		67,050

New machine

	K'000	K'000
Materials		162,000
Labour: two operators at 1500 hours	3,000	

One assistant at 1500 hours	900	3,900
Variable expenses		2,275
Maintenance		4500
Fixed expenses:		
Depreciation	9,550	
Fixed overheads absorbed	7,800	17,350
		190,025

The new machines estimated life is 10 years and it will cost K100 million.

The company is financed by 70% equity and 30% debt. Debt consists of 8% irredeemable debt currently trading at K103.2 per K100 par value. The corporate tax is 30% per year. The government bonds are 4.7% and the equity premium of 7%. Jumbe Ltd has an equity beta of 1.05.

Required:

(a) Advise the management of Jumbe Ltd on the most financially viable course of action to undertake using the Net Present Value (NPV) method. (20 marks)

(b) Explain the appropriateness of the use of the Net Present Value (NPV) method in (a) above and other factors which might influence the decision. (10 marks)

(c) Given that Jumbe Ltd shares expects to grow at their current rate of 12% per year for the next 3 years and then 8% per year indefinitely thereafter. Assuming the required rate of return on equity is 15% per year and the last dividend paid was K0.75 per share. Calculate the current share price. (10 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

Mwambo Ltd is a small manufacturing company in Zambia. The manufacturing sector has recorded increased growth due to the improvement of the economy. Mwambo Ltd expects annual demand for its product to increase to 285,000 units. The product has a selling price of K150 per unit and is purchased for K95 per unit from a supplier. Mwambo Ltd places an order for 20,000 units of the product at regular intervals throughout the year. Because the demand for the product is to some degree uncertain, Mwambo Ltd maintains a safety (buffer) inventory of the product which is sufficient to meet demand for 15 working days. The cost of placing an order is K65 and the storage cost for the Product is 100 ngwee per unit per year.

However, despite the increased growth of the manufacturing sector, Mwambo Ltd does not want to undertake a lot of business activities for fear of overtrading. The company is also considering on adopting a working capital policy especially on the management of receivables.

Required:

(a) Calculate the annual cost of the current ordering policy. (5 marks)

(b) Calculate the annual saving if the Economic Order Quantity (EOQ) model is used to determine an optimal ordering policy. (6 marks)

Ignore financing costs in (i) and (ii) above.

(c) Explain four factors that Mwambo Ltd should consider when formulating its working capital policy on the management of customers. (4 marks)

(d) Explain the meaning of the term 'overtrading' and some of the typical characteristics. (5 marks)

[Total: 20 Marks]

QUESTION THREE

Bwamb Plc. is a listed company that has recorded rapid growth in earning and strong financial position owing to its growth strategy of acquisition. The company is now considering a bid for HT Co. a listed company in the same business industry as Bwamb Plc. The following financial information relate to HT Co, which is shortly to pay its annual dividend:

Number of ordinary shares	6 million
Ordinary share price (ex div basis)	K4.50
Earnings per share	50 ngwee
Proposed payout ratio	65%
Dividend per share one year ago	30.5 ngwee
Dividend per share two years ago	31 ngwee
Equity beta	1.1

OTHER RELEVANT FINANCIAL INFORMATION

Average sector price/earnings ratio 11.5

Risk-free rate of return 6%

Return on the market 11%

Required:

(a) Calculate the value of HT Co using the following methods.

(i) price/earnings ratio method; and

(ii) dividend growth model; (7 marks)

(b) Discuss the significance, to Bwamb Plc, of the values you have calculated in (a) above, in comparison to the current market value of Bwamb Plc. (5 marks)

(c) Discuss the nature of the agency problem and the use of share option schemes as a way of reducing the agency problem in a stock-market listed company such as Bwamb Plc. (8 marks)

[Total: 20 Marks]

QUESTION FOUR

Sygenta is a company which develops, produces and distributes corn seed in Zambia. The company's latest financial information is as follows:

	K'000
Operating Profit	3,450
Interest	(200)
Profit Before Taxation	3,250
Taxation	(650)
Profit After Taxation	2,600
Dividends	(1,600)
Retained Profits	1,000
Ordinary Shares (Nominal Value of 50 Ngwee)	5,000

The company requires K3,200,000 for research and development and is considering the following financing options:

Option 1

Obtain a stock market listing through an issue of new shares to new shareholders at a price of K2.50 per share and issue costs of K100, 000, in order to raise K3.2 million.

Option 2

Issue bonds amounting to K3, 200,000, paying annual interest of 6%, and redeemable after ten years at par.

Under both options, the funds invested would earn a before-tax return of 18% per year.

The corporate tax rate paid by the company is 20% per year. Sygenta has a cost of equity of 9% per year, which is expected to remain constant.

Required:

(a) Explain the factors that would be considered in determining the optimum level of cash to be held by Sygenta. (6 marks)

(b) Calculate the effect on earnings per share of the proposal to raise finance by a stock market listing (option 1), and comment on the acceptability of the proposal to existing shareholders. (6 marks)

(c) Discuss the factors to be considered in choosing between traded bonds, an issue of equity via a placing and venture capital as sources of finance. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

The Management of Waka Ltd are currently facing two challenges. The first challenge is how to estimate the cost of capital to use for investment appraisal. Secondly, they want to assess the impact of changes in Information Technology on Porter's five forces which the company uses to determine the competition in the industry.

The following information relates to the company at the current time:

Number of ordinary shares	25 million
Book value of 9% convertible debt	K38 million
Book value of 8% bank loan	K3 million
Market price of ordinary shares	K6.3 per share
Market value of convertible debt	K108.2 per K100 bond

Waka Ltd has an equity beta of 1.3 and the equity risk premium is 8%. The government bond rate is 5%. The corporate tax is 25% per annum.

Waka Ltd expects share prices to rise in the future at an average rate of 5% per year. The convertible debt can be redeemed at par in eight years' time, or converted in five years' time into 15 shares of Waka Ltd per K100 bond.

Required:

(a) Calculate the weighted average cost of capital of Waka Limited using market values as weights. State clearly any assumptions that you make. (10 marks)

(b) Discuss the impact of changes in Information Technology on the Porter's five forces. (10 marks)

[Total: 20 Marks]

END OF PAPER

Formula Sheet

Economic order quantity

$$= \sqrt{\frac{2C_oD}{C_H}}$$

Miller – Orr Model

$$\text{Return point} = \text{Lower limit} + \left(\frac{1}{3} \text{ x spread}\right)$$

$$\text{Spread} = 3\left[\frac{\frac{3}{4} \text{ x transaction cost x variance of cash flows}}{\text{interest rate}}\right]^{\frac{1}{3}}$$

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

CA 2.5 SOLUTIONS

SOLUTION ONE

a) Existing machine:

	K'000
Relevant cash flows:	
Materials	60,000
Labour: One operator at 1800 hours	1,350
Variable expenses	925
Maintenance (Excluding exceptional items)	2,000
Annual cost per machine	64 275
	X 3
Total cost per annum	192,825
*Annuity factor@10% 10years	6.145
Total present value	**1,184,909.63**

New Machine:

	K'000
Relevant cash flows:	
Materials	162,000
Labour	3,900
Variable expenses	2,275
Maintenance	4,500
Annual cost per machine	172,675
*Annuity factor@10% 10 years	6.145
Total Present Values of costs	**1,061,087.88**

The most financial viable course of action to take would be to purchase the new machine, raising the net present value to the organization by K123, 821.75 (K1, 184,909.63 – K1, 061,087.88).

*****Note: Cost of Capital

Cost of equity = 4.7% + 1.05(7%) = 12.05%

Cost of Debt = 8(1-0.3)/103.2 x 100% = 5.43%

WACC = (12.05% x 0.7) + (5.43% x 0.3) = 10%

b) In coming to the above conclusion the discounted cash flow method has been used in order to calculate the discounted value of the cash flow differences between the two proposals over the ten-year period. An assessment of the profitability of the proposals cannot be made since there are no revenue figures.

In addition to considering relative cash flows, the following should be considered in relation to the decisions.

(i) Reliability of the forecasts regarding future costs, life spans and cost of capital.
(ii) Desirability of any change upon labour requirements.
(iii) Effect of any change upon labour requirements.
(iv) Improvements in quality caused by the new machine.

c)

$g_{1-3} = 12\%$ $g_{4-\infty} = 8\%$ $r = 15\%$ $D_0 = 0.75$

0	1	2	3	4	5	…	->∞
D0	D1	D2	D3	D4	D5	…	->∞
=0.75	= 0.84	=0.94	=1.05	=1.14	=1.23	…	->∞

g= 12%   g =8%

$$P_0 = \left(\frac{D_1}{(1+r)^1} + \frac{D_2}{(1+r)^2} + \frac{D_3}{(1+r)^3}\right) + \left[\frac{D_4}{r-g} \times \frac{1}{(1+r)^3}\right]$$

$$P_0 = \left(\frac{0.84}{(1.15)^1} + \frac{0.94}{(1.15)^2} + \frac{1.05}{(1.15)^3}\right) + \left(\frac{1.14}{0.15-0.08} \times \frac{1}{(1.15)^3}\right)$$

$$P_0 = (0.73 + 0.71 + 0.69 + \frac{16.29}{(1.14)^3}$$

$$P_0 = 2.13 + 10.71$$

$$P_0 = K12.84$$

SECTION B

SOLUTION TWO

(a) Current order size = 20,000 units
Average number of orders per year = demand/order size = 285,000/20,000 = 14.25 orders
Annual ordering cost = 14.25 × K65 = K926.25
Buffer inventory held = 285,000 × 15/365 = 11,712 units
Average inventory held = 11,712 + (20,000/2) = 21,712 units
Annual holding cost = 21,712 × K1 = K21,712
Annual cost of current ordering policy = K21,712 + 926.25 = K22,638.25

(b) Economic order quantity:

$$EOQ = \sqrt{\frac{2 \text{ x demand} \times \text{ordering cost}}{\text{holding cost}}}$$

$$EOQ = \frac{2 \text{ x } 285{,}000 \text{ x } 65}{1} = 6{,}087 \text{ units}$$

Average number of orders per year = 285,000/6,087 = 47 orders

Annual ordering cost = 47 × K65 = K3,055

Average inventory held = 11,712 + (6,087/2) = 14,756 units

Annual holding cost = 14,756 × K1 = K14,756

Annual cost of EOQ ordering policy = K14,756 + K3,055 = K17,811

Saving compared to current policy = K22,638.25 – K17,811 = K4,827.25

c)

i) The level of trade receivables

Since there is a substantial amount of capital being tied up in trade receivables, the policy may be aimed at reducing the level of investment by not granting credit as freely as before or shortening the credit terms

ii) The cost of financing trade credits

If the cost of finance for Mwambo Ltd is high, management might need to reduce the levels of investment in trade receivables

iii) Procedures for controlling trade credits

Mwambo might need to consider changing or improving the procedures used to control credit to individual customers or for debt collection.

iv) Liquidity needs

Mwambo Ltd need to improve its liquidity and therefore may reduce credit terms or consider debt factoring or invoice discounting.

d)

Overtrading happens when a business tries to do too much too quickly with too little long-term capital, so that it is trying to support too large a volume of trade with the capital resources at its disposal. Even if an overtrading business operates at a profit, it could easily run into serious trouble because it is short of money. Such liquidity troubles stem from the fact that it does not have enough capital to provide the cash to pay its debts as they fall due.

Symptoms of overtrading are as follows.

1. There is a rapid increase in turnover.
2. There is a rapid increase in the volume of current assets and possibly also non-current assets. Inventory turnover and accounts receivable turnover might slow down, in which case the rate of increase in inventories and accounts receivable would be even greater than the rate of increase in sales.
3. There is only a small increase in proprietors' capital (perhaps through retained profits). Most of the increase in assets is financed by credit, especially:
    i. Trade accounts payable - the payment period to accounts payable is likely to lengthen
    ii. A bank overdraft, which often reaches or even exceeds the limit of the facilities agreed by the bank
4. Some debt ratios and liquidity ratios alter dramatically.
    i. The proportion of total assets financed by proprietors' capital falls, and the proportion financed by credit rises.
    ii. The current ratio and the quick ratio fall.
    iii. The business might have a liquid deficit, that is, an excess of current liabilities over current assets.

SOLUTION THREE

a)

(i) Price/earnings ratio method of valuation
Market value = P/E ratio × EPS
EPS = K0.5 per share
Average sector P/E ratio = 11.5
Value of shares = K0.5 × 11.5 = K5.75 per share
Number of shares = 6 million
Value of HT Co = K34.5 million

(ii)

Dividend growth model method of valuation

$$P_0 = \frac{D_0(1+g)}{K_e - g}.$$

Proposed dividend= 0.65 x 50ngwee =32.5 ngwee per share

$$(1+g)^2 = \frac{\text{Proposed dividend}}{\text{Dividend two years ago}} - 1$$

$$(1+g)^2 = 32.5/30.5 - 1$$

g= 3.23%

Ke= 6% + 1.1(11%-6%)

Ke=11.5%

Po = 0.325 (1+0.0323)/0.115-0.0323

= K4.1 per share

Value of HT co = K4.1 x 6 million = K24.6million

b) **Discussion of the values calculated**

P/E ratio

The current share price of HT Co is K4.50 which equates to a P/E ratio of 9 (4.5/0.5). This is lower than the average sector P/E ratio of 11.5 which suggests that the market does not view the growth prospects of HT Co as favourably as an average company in that business sector. This implies that an acquisition by Bwamb Plc could result in improved financial performance of HT Co, assuming that Bwamb Plc has the competences and skills to transfer to HT Co.

Dividend growth

The dividend growth model method of valuation resulted in a value of K24.6million which is lower than the current market capitalisation of HT Co of K27million (K4.5 × 6m). The current share price may be artificially high due to bid rumours but shareholders are unlikely to accept a valuation much lower than this. The dividend growth model uses an estimated expected growth rate and a calculated cost of equity, both of which are subject to error. The model assumes that investors act rationally and homogenously and this may not be true. Shareholders may have different expectations and the stock market may not be completely efficient, both of which will make this method of valuation less reliable.

c) **The agency problem**

Although ordinary shareholders are the owners of the company to whom the board of directors are accountable, the actual powers of shareholders tend to be restricted, except in companies where the shareholders are also the directors. The day-to-day running of a company is the responsibility of management. Shareholders are often ignorant about their company's current situation and future prospects. They have no right to inspect the books of account, and their forecasts of future prospects are gleaned from the annual report and accounts, stockbrokers, investment journals and daily newspapers. The relationship between management and shareholders is sometimes referred to as an agency relationship, in which managers act as agents for the shareholders. The agency problem refers to the fact that the managers of a company may act in ways which do not lead to shareholder wealth maximisation. There is a divorce of ownership from control. If managers hold none or very little of the equity shares of the company they work for, what is to stop them from working inefficiently, not bothering to look for profitable new investment opportunities, or giving themselves high salaries and perks?

Share option schemes

Goal congruence may be better achieved and the agency problem better dealt with by offering organisational rewards (more pay and promotion) for the achievement of certain levels of performance. In a share option scheme, selected employees are given a number of share options, each of which gives the holder the right after a certain date to subscribe for shares in the company at a fixed price. The value of an option will increase if the company is successful and its share price goes up. Schemes based on shares can motivate managers to act in the long-term interests of the organisation by doing things to increase the organisation's market value, for example by investing in projects with positive net present values. However, it is possible that managers may be rewarded for poor performance if share prices in general are rising. An opposite effect would occur if share prices in general are falling and managers may not be rewarded for good performance. A further problem is deciding on a share option exercise price and a share option exercise date that will spur managers to concentrate on increasing shareholder wealth and be demanding, rather than being easily achievable.

SOLUTION FOUR

(a) The following factors should be considered in determining the optimum level of cash to be held by Sygenta, for example, at the start of a month or other accounting control period.

<u>The transactions need for cash</u>
The amount of cash needed for the next period can be forecast using a cash budget, which will net off expected receipts against expected payments. This will determine the transactions need for cash, which is one of the three reasons for holding cash.

<u>The precautionary need for cash</u>
Although a cash budget will provide an estimate of the transactions need for cash, it will be based on assumptions about the future and will therefore be subject to uncertainty. The actual need for cash may be greater than the forecast need for cash. In order to provide for any unexpected need for cash, a company can include some spare cash (a cash buffer) in its cash balance. This is the precautionary need for cash. In determining the optimal level of cash to be held, a company will estimate the size of this cash buffer, for example from past experience, because it will be keen to minimise the opportunity cost of maintaining funds in cash form.

<u>The speculative need for cash</u>
There is always the possibility of an unexpected opportunity occurring in the business world and a company may wish to be prepared to take advantage of such a business opportunity if it arises. It may therefore wish to have some cash available for this purpose. This is the speculative need for cash. Building 'a war chest' for possible company acquisitions reflects this reason for holding cash.

<u>The availability of finance</u>
A company may choose to hold higher levels of cash if it has difficulty gaining access to cash when it needs it. For example, if a company's bank makes it difficult to access overdraft finance, or if a company is refused an overdraft facility, its precautionary need for cash will increase and its optimum cash level will therefore also increase.

(b) The cash to be raised = 3,200,000 + 100,000 = K3,300,000
The number of shares issued = 3,300,000/2.50 = 1,320,000 shares
Total number of shares after the stock market listing = 11,320,000 shares
Increase in before-tax income = 0.18 x 3.2m = K576,000
Increase in after-tax income = 576,000 x 0·8 = K460,800
Revised earnings = 2,600,000 + 460,800 = K3,060,800

Revised earnings per share = 100 x (3,060,800/11,320,000) = 27 Ngwee per share
Current earnings per share = 100 x (2,600,000/10,000,000) = 26 Ngwee per share

<u>The earnings per share has increased by 1 ngwee per share</u>, which existing shareholders may find acceptable. However, the balance of ownership and control will change as a result of the new shareholders, and no information has been provided about expected future dividends.

(c) Traded bonds are debt securities issued onto the capital market in exchange for cash received by the issuing company. The cash raised must be repaid on the redemption date, usually between five and fifteen years after issue. Bonds are usually secured on non-current assets of the issuing company, which reduces the risk to the lender. In the event of default on interest payments by the borrower, the bond holders can appoint a receiver to sell the assets and recover their investment. Interest paid on the bonds is tax-deductible, which reduces the cost of debt to the issuing company.

Provided the borrower continues to pay the interest, however, bond finance is a low risk financing choice by the issuer. There are a number of differences between bond finance and a new equity issue via a placing that will influence the choice between them. Equity finance does not need to be redeemed, since ordinary shares are truly permanent finance. While bond interest is usually fixed, the return to shareholders in the form of dividends depends on the dividend decision made by the directors of a company, and so these returns can increase, decrease or be passed. Furthermore, since dividends are a distribution of after-tax profit, they are not tax-deductible like interest payments, and so equity finance is not tax-efficient like debt finance. Venture capital is found in specific financing situations, i.e. where risk finance is needed, for example, in a management buyout.

Both equity and debt finance can be part of a venture capital financing package, but the return expected on venture capital is very high because of the level of risk faced by the investor.

SOLUTION FIVE

Conversion value = K6.3 x (1 + 0.05) ^5 x 15 = K121 per bond

We can therefore assume that conversion will take place as the conversion value is much greater than par value. The annual interest cost net of tax will be 9% of K100 x (1 – 0.25) = K6.75 per bond

Year	Cash flow		Dis@10%	PVs	Dis@5%	
0	Mv	(108.20)	1.000	(108.20)	1.000	(108.20)
1 to 5	Interest	6.75	3.791	25.59	4.329	29.22
5	Redeem	121	0.621	75.14	0.784	94.864
				(7.47)		15.88

Calculate the cost of convertible debt using an IRR calculation.

$$IRR \quad = a\% + \left[\frac{NPV_a}{NPV_a - NPV_b} \times (b - a)\right]\%$$

Cost of debt =5% + 15.88/15.88+7.47 (10%-5%) = 8.4%

Cost of equity = 5%+1.3(8%) = 15.4%

Cost of bank loan = 8% (1-0.25) = 6%

Market values:

	K'm	%
Equity (25m x 6.3)	157.5	78%
Convertible bond (108.2/100 x K38m	41.12	20
Bank loan	3.00	2
Total	201.62	100

WACC= (15.4% x 0.78) + (8.4%x0.2) + (6%x0.02) =13.8%

b) The impact of information technology on the competitive forces Barriers to entry and IT

i) IT can raise entry barriers by increasing economies of scale, raising the capital cost of entry (by requiring a similar investment in IT) or effectively colonising distribution channels by tying customers and suppliers into the supply chain or distribution chain. (b) IT can surmount entry barriers. The use of IT can reduce the costs of selling and distribution and even substitute for traditional methods entirely. An example is the use of internet banking, which sometimes eliminates the need to establish a branch network.

ii) Bargaining power of suppliers and IT
Increasing the number of accessible suppliers. Supplier power can derive from various factors such as geographical proximity and the fact that the organisation requires goods of a certain standard in a certain time. IT enhances supplier information available to customers. (b) Closer supplier relationships. Suppliers' power can be shared. CAD can be used to design components in tandem with suppliers. Such relationships might be developed with a few key suppliers. The supplier and the organisation both benefit from performance improvement, but the relations are closer. Switching costs. Suppliers can be integrated with the firm's administrative operations, by a system of electronic data interchange.

iii) Bargaining power of customers.
IT can lock customers in. (a) IT can raise switching costs by locking customers into networks. (b) Customer information systems can enable a thorough analysis of marketing information so that products and services can be tailored to the needs of certain segments. (c) Customers also have access to improved information; this can increase their bargaining power. (d) Suppliers can gain access to larger number of customers, reducing their dependence on a few large buyers.

iv) Substitutes. In many respects, IT itself is the substitute product. Here are some examples. (a) Video-conferencing systems can substitute for air transport in providing a means by which managers from all over the world can get together in a meeting. (b) IT is the basis for new leisure activities (eg computer games) which substitute for TV or other pursuits. (c) E-mail substitutes for some postal deliveries.

v) IT and the state of competitive rivalry. In many industries, IT will enable newcomers to imitate existing products and services, though set up costs may limit this effect. The effect of the internet may be to expand the size of the market. (a) IT can be used in support of a firm's competitive strategy of cost leadership, differentiation or focus. (b) IT can be used in a collaborative venture, perhaps to set up new communications networks. Some competitors in the financial services industry share the same ATM network.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 10 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

The following are the draft statements of financial position of Hapa Plc, Sana Plc and Pala Plc as at 31 May 2019:

Statement of financial position as at 31 May 2019:

	Hapa Plc	Sana Plc	Pala Plc
	K'000	**K'000**	**K'000**
Assets			
Non-current assets			
Property, plant and equipment	1,126	709	607
Investments in:			
Sana Plc	294	-	-
Pala Plc	99	300	-
	1,519	1,009	607
Current assets	921	644	464
Total Assets	**2,440**	**1,653**	**1,071**
Equity and liabilities			
Equity			
Equity shares of K0.50 each	464	383	363
Other components of equity	212	171	152
Retained earnings	345	75	120
Total Equity	**1,021**	**629**	**635**
Liabilities			
Non-current liabilities	913	635	344
Current liabilities	506	389	92
Total Liabilities	**1,419**	**1,024**	**436**
Total equity and liabilities	**2,440**	**1,653**	**1,071**

You are a group accountant of Hapa Plc. The finance director of Sana Plc has told you that the company has been given a contract to construct a – five kilometre bridge at a price of K2,000,000. The construction is expected to take eighteen (18) months starting on 1 July 2019. He further said the company is however experiencing a decline in its profitability which might adversely affect its chance to secure a loan required to fund the construction. He has thus, suggested to recognise income expected from bridge construction in the company's financial statements for the year to 31 May 2019 though he is not sure of ethical issues this might raise.

The following information is relevant in the preparation of group accounts.

1. Hapa Plc acquired 90% of Sana Plc's equity shares and 20% of Pala Plc on 1 June 2015 for a cash consideration of K441,000 and K99,000 respectively. On the date of acquisition, the fair value of Sana Plc's identifiable net assets stood at K475,000 while its other components of equity and retained earnings were K61,000 and K25,000 respectively. The excess in fair value relates to non – depreciable land. The fair value of non – controlling interest on 1 June 2015 was K49,000.
   Hapa Plc's 20% holding in Pala did not give rise to significant influence.

2. Sana Plc acquired 60% of Pala Plc's equity shares on 1 June 2016 for cash consideration of K300,000. The fair value of identifiable net assets of Pala Plc stood at K486,000. On the same date, other components of equity and retained earnings were K82,000 and K50,000 respectively. Other components of equity and retained earnings had been K62,000 and K30,000 respectively on 1 June 2015. Any difference between the fair value and carrying amounts of the identifiable net assets relate to an item of plant which had a remaining useful economic life of four (4) years on 1 June 2015 and three (3) years on 1 June 2016. The fair values on non-controlling interests (26%) and 20% shareholding in Pala as at 1 June 2016 were K129,000 and K105,000 respectively.

3. On 31 May 2019 Hapa Plc disposed of 30% equity holding in Sana Plc for cash consideration of K190,000. This left Hapa Plc's equity interests in Sana Plc at 60%.This transaction was correctly recorded in Hapa Plc's individual books.

4. Sana Plc and Pala Plc have not issued any additional shares since being acquired by Hapa Plc. Further, fair value adjustments referred to in (1) and (2) above have not been incorporated in the above statements of financial position.

5. Goodwill in Sana Plc has been impaired by K5,000 as at 31 May 2019. However, goodwill in Pala Plc has not been impaired since its acquisition.

6. It is group policy to value non-controlling interests at fair value at the date of acquisition.

Required:

(a) Calculate profit on disposal of 30% equity interests in Sana Plc for inclusion in separate financial statements of Hapa Plc group for the year to 31 May 2019. (1½ marks)

(b) Prepare the consolidated statement of financial position of Hapa Plc group as at 31 May 2019. (30½ marks)

(c) Evaluate any ethical and professional issues arising from the finance director of Sana Plc recognising the income from bridge construction in the financial statements for the year to 31 May 2019. (8 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

You work for Samlo Chartered Accountants as one of the firm's financial consultants. Your clients have approached you for advice on the accounting treatment of the following transactions in their respective financial statements for the year to 31 May 2019 in accordance with applicable accounting standards.

Client 1 – Kapa Plc

Kapa Plc acquired 60% equity interests in Bama Plc on 1 June 2018 for a cash consideration of K252,000. The fair value of Bama Plc's identifiable net assets was US $40,000.

Kapa Plc values non-controlling interests based on their proportionate share of the fair value of subsidiaries' identifiable net assets.

The following exchange rates are relevant:

Date	US$1 to ZMK
1 June 2018	10.00
31 May 2019	9.70
Average	9.90

United States Dollars is the functional currency of Bama Plc.

Goodwill in Bama Plc has not been impaired.

The Directors of Kapa Plc need advice on how they should deal with goodwill arising from the acquisition of Bama Plc in their group financial statements for the year ended 31 May 2019. (4 marks)

Client 2 – Dasaka Limited

Dasaka Limited issued a K100,000 three - year 12% non- convertible loan stock to Hasala Limited on 1 June 2018. On the same date, Dasaka Limited incurred transaction cost of K5,000. The loan has an effective interest rate of 20% per annum and has to be paid back at a premium of K35,576 after three years. Hasala Limited is required to pay interest annually on 31 May, starting on 31 May 2019.

The directors of Dasaka Limited need advice on how the loan should be treated in their financial statements for the year to 31 May 2019. (5 marks)

Client 3 – Yala Plc
Yala Plc acquired a filling station from Samo Plc under a five (5) – year lease agreement commencing on 1 June 2018. The filling station was leased by Samo Plc immediately after its completion. This was because the company decided to abandon its plans to venture into oil marketing business. The agreement cost Yala Plc K6,000 in legal fees and other arrangement related costs. The lease agreement provides for annual lease rentals of K120,000 for four (4) years and K200,000 in year five (5). Further, the agreement states that the asset will be transferred to Yala Plc at the end of the lease period. The lease agreement does not contain an implicit interest rate. However, Yala Plc has a weighted average cost of capital of 12%. In addition, review of the risk associated with investing in Yala Plc established that the company is now able to borrow at an annual interest rate of 10% from the previous 8%.

The filling station has an economic useful life of ten (10) years after which, Yala Plc will be required to dismantle it and restore the site to its original state. This will cost Yala Plc approximately K30,000. (Any provisions must be discounted at 12%).

The directors of Yala Plc need advice on how they should account for the lease agreement in their financial statements for the year to 31 May 2019. (11 marks)

Required:
Advise your clients on how the above transactions should be treated in their respective financial statements for the year ended 31 May 2019. **(Your answer should include relevant calculations where applicable).**

[Total: 20 Marks]

<u>QUESTION THREE</u>

Lusungu Plc is a food processing company. Though the company's production facility is based in Kitwe, it has a market presence across Zambia and a significant part of the rest of Southern Africa.

The Directors of Lusungu are considering the accounting treatment of a number of transactions in preparing financial statements for the financial year to 31 December 2018 including the following:

Transaction One

The following details relate to Lusungu Plc's Senior managers:

Manager	Annual salary as at 31.12.2017 (K)	Accrued leave days at 31.12.2017
A	480,000	10
B	360,000	12
C	240,000	14

The company increased its senior managers' annual salaries by 15% during the year to 31.12.2018. Each manager earns two leave days per calendar month and each one of them took 20 days leave during the year to 31.12.2018. They were paid their leave pay for the days they took as leave based on their current annual salaries. All employees at Lusungu are required to work for five days per week throughout the year unless they take leave. The leave days earned during a calendar year are utilised in the same year or within 12 months of end the year in which they were accrued.

The Directors of Lusungu Plc would like advice on how to account for the above senior managers' leave pay in the financial statements for the year ended 31.12.2018. (5 marks)

Transaction Two - Pension scheme

All Lusungu Plc employees except for the senior management belong to this pension scheme. The scheme requires monthly employer and employee pension contributions to be paid to a separate pension fund amounting to 20% and 10% of the employees basic salary respectively. Total pension contributions paid during the year to 31 December 2018 amounted to K1.5 million. However, as at 31.12.2018, employer and employee contributions for the last two months of the year amounting to K 90,000 and K 50,000 respectively are yet to be remitted to the pension fund. There were no arrears in pension contributions at 31.12.2017.

Under the sheme, accrued employee benefits are computed based on each employee's years of service and the salary at the time of retirement. Where the fund assets are inadequate to meet pension payments, Lusungu Plc makes one off lumpsum payments to rectify the position. However, any excessive fund assets can only be utilised through increasing accrued pension upon agreement with the fund trustees or Lusungu Plc temporarily suspending periodic employer contributions.

As at 31.12.2017, accrued employee pension benefits and the fair value of the pension fund assets amounted to K22.5 million and K17.3 million respectively. Total Pension benefits accrued during the year to 31.12.2018 amounted to K 1.8 million of which K1.3 million was on account of employee services rendered in that year with the balance being attributable to a change in the benefit formula which has been applied retrospectively. As a result of a restructuring which led to a number of employees being layed off, there was a reduction in the accrued employee pension benefits of K1.1 million as the former employees no longer belonged to the scheme having gotten their terminal benefits under the restructuring. At 31.12.2018, accrued employee pension benefits and the fair value of pension fund assets amounted to K25 million and K20 million respectively. The fair value of fund assets at 31.12.2018 includes accrual of contribution income for both employee and employer contributions not yet remitted by Lusungu Plc as at 31.12.2018. Yields on high class corporate bonds with the same term to maturity as the accrued employee pension benefits were 12% and 13% at 31.12.2017 and 31.12.2018 respectively.

The Directors of Lusungu Plc are seeking advice on how the pension scheme must be accounted for in the financial statements for the year to 31 December 2018. (15 marks)

Required:

Advise the Directors of Lususngu plc on how the above transactions must be treated in the company's financial statements for the year to 31.12.2018. Your advice must include the presentation and measurement of the elements involved.

[Total: 20 Marks]

QUESTION FOUR

Likhezo Plc is a financial services company. The company finances its operations through debt and equity though generally, the Directors wish to maintain low levels of gearing.

The company has a number of transactions for which it requires advice on accounting treatment in preparing financial statements for the year to 31 December 2018 as highlighted below:

Issue of Preference Shares

Likhezo issued 2 million 10% K10 preference shares on 1.1.2018 at a premium of 20%. The preference shares can only receive dividends if a dividend is declared on Likhezo's equity shares. However, Likezo has an option to buy back the shares at any time after 31.12.2027 at a premium of 50%. (5 marks)

Issue of Loan Notes

Likhezo issued 1 million 8% K100 loan notes on 1.1.2017 at a premium of 5%. Issue costs amounted to 1% of the gross issue proceeds. The loan notes pay interest on 31 December each year over their three year term to maturity. They will be redeemed at par. The notes have been correctly classified as a **Fair Value Through Profit or Loss (FVTPL)** liability and were reported at a total fair value of K99.11 million on 31.12.2017 reflecting a specific market interest rate applicable to Likhezo of 8.5% when the general market interest on this type of bond was 9%. The specific and general market interest rates at 31.12.2018 are 9.35% and 10.08% respectively. (7 marks)

Investment in Loan Asset

Likhezo made a loan of K200 million to a third party on 1.1.2018. Transaction costs incurred by Likhezo amounted to K2 million. The third party is required to pay interest cashflows equal to 20% of the principal amount on 31 December each year over the term to maturity. The whole principal amount of the loan is repayable on 31.12.2021.

The loan asset has been correctly classified as a financial asset to be measured at amortised cost with the original effective interest rate computed at 20.4%. A loss allowance on the loan asset was initially measured at K4 million. The interest due on 31.12.2018 has been received in full. As at 31.12.2018, Likhezo assesses that there has been a significant change in the borrower's credit worthiness though there is no evidence the loan asset is impaired. The company estimates the following probability distributions in respect of cashflows receivable from the loan asset over the unexpired term to maturity:

Date (31.12)	Type of cashflow	Amount receivable as percentage of contractual amount	Probablity
2019	Interest	100%	0.80
	Interest	90%	0.15
	Interest	75%	0.05
2020	Interest	100%	0.75
	Interest	90%	0.10
	Interest	75%	0.15
2021	Interest	100%	0.70
	Interest	90%	0.10
	Interest	75%	0.20
	Principal	100%	0.70
	Principal	80%	0.30

(8 marks)

Required:

Advise the directors of Likhezo plc on how the above transactions must be treated in the company's final statements for the year to 31 December 2018. Your advice must include the presentation and measurement of the elements involved.

[Total: 20 Marks]

QUESTION FIVE

You have been approached by a client who is considering investing in Nthena Plc, a fast growing entity that has had significant positive media coverage in the last year. Your assistant performed a brief review of the financial statements of Nthena and has the following observations:

- Nthena appears to have invested heavily in property, plant and equipment in the year, which seems to have resulted in an overdraft at the year end.
- Its share price increased significantly from K5.08 on 31 December 2017 to K9.27 on 31 December 2018."
- Nthena paid a dividend of K50 million in 2018 (K100 million in 2017).

Nthena's financial statements are provided below:

Nthena Statement of Financial Position as at 31 December:

	2018	2017
	K'm	K,m
ASSETS		
Non-current		
Tangible	766	448
Equity Financial Asset (FVTOCI)	298	280
Current		
Inventory	290	130
Receivables	468	402
Cash and Cash Receivables	-	144
Total Assets	1,822	1,404
EQUITY AND LIABILITIES		
Equity		
Share Capital (K1 shares)	300	300
Revaluation Reserve	155	75
Retained Earnings	801	633
Other Components of Equity	66	44
Total Equity	1,322	1,052
Non-current Liabilities		
5% convertible Loan Notes (2020)	200	188
Deferred Tax	43	30
	243	218
Current Liabilities		
Payables	199	134
Short Term Borrowings	58	-
	257	134
Total equity and Liabilities	1,822	1,404

Nthena Statement of Profit or Loss and Other Comprehensive Income for the ended 31 December:

	2018	**2017**
	K'm	K'm
Revenue	2,400	2,020
Cost of Sales	(1,735)	(1,505)
Gross Profit	665	515
Distribution Costs	(287)	(220)
Administartive Expenses	(144)	(103)
Operating Profit	234	192
Investment Income	94	-
Finance Costs	(20)	(6)
PBT	308	186
Income Tax Expense	(90)	(60)
Profit for the year	218	126
Other Comprehensive Income:		
Items that will not not be reclassified in profit or loss		
Revaluation of PPE	100	25
Remeasurement of FVTOCI asset	30	12
Tax effects of other comprehensive income	(28)	(15)
Other comprehensive Income for the year	102	22
Total Comprehensive Income for the Year	320	148

Further, your assistant has briefed you that Nthena secured a short term overdraft facility of up to K80 million that expires in June 2019. Directors have also applied for a long term loan of K100 million and are still awaiting response from the lender.

Required:

(a) Analyse the financial performance of Nthena for the year ended 31 December 2018 and its financial position as at 31 December 2018. (15 marks)

(b) Evaluate the impact on the stock market investors' ratios if almost all the convertible loan note holders choose to convert to equity shares. (5 marks)

[Total: 20 Marks]

END OF PAPER

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

SECTION A

SOLUTION ONE

a) **Calculation of profit on disposal of 30% in Sana Plc**

	K'000
Consideration received	190.00
Share of cost of investment disposed off	
(30/90)% x 441	147.00
Profit	**43.00**

b) **Hapa Plc Group**
Consolidated Statement of Financial Position as at 31 May 2019

	K'000
Assets	
Non-current assets	
Property, plant and equipment (1,126+709+607+6W1-9W1+9W1)	2,448.00
Goodwill **(W1)**	28.00
	2,476.00
Current asset (921+644+464)	2,029.00
Total Assets	**4,505.00**
Equity and liabilities	
Equity	
Equity shares of K0.50 each	464.00
Other components of equity **(W3)**	241.80
Retained earnings **(W4)**	407.00
	1,112.80
Non - controlling interests **(W5)**	513.20
Total Equity	**1,626.00**
Liabilities	
Non-current	
Non-current liabilities (913+635+344)	1,892.00
Current liabilities (506+389+92)	987.00
Total Liabilities	**2,879.00**
Total equity and liabilities	**4,505.00**

c) **Ethical Issues**

The IASB Conceptual Framework states that 'the objective of general purpose financial reporting 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'. Further, to make the financial information useful, two fundamental qualitative characteristic have to be met:

- **Relevance**. This is met when the information has a predictive value or confirmatory value or both or it is capable of influencing the decision of the user if omitted. The nature and materiality of information is vitally important here.
- **Faithful representation**. This is met when the information is complete, neutral and free from error. The information must include all necessary descriptions and explanation to support the items recognised in the financial statements. It must not be manipulated in any way in order to influence the decisions of users.

Further, accounting standards are developed and revised in order to make the financial statements more useful to their users. Companies listed on the stock exchange like Sana Plc are required to prepare their financial statements in accordance with applicable international accounting standards, international financial reporting standards and other generally accepted standards. Recognising income from the construction contract in the financial statements for the year to 31 May 2019 would be against the principles contained in IFRS 15 '*Revenue from contract with customers*' which requires revenue to be recognised as control is passed, either over time or at a point in time. This has not happened as construction works have not even commenced.

The financial statements of Sana Plc should represent a true and fair view of all material transactions that took place in the period under review. Recognising the income on the contract which has not been fulfilled may lead to misrepresentation of the company's transactions. This may result in users of financial statements making wrong dividends, investment and financing decisions. Sana Plc might get a loan under terms which would not have applied had the income from the contract been omitted. If discovered it may lead to lawsuits and litigations against the company from various users of financial statements especially the lenders. Further, it may question the integrity and competency of the accountant and bring the accounting profession into disrepute.

Accountants are expected to hold a high level of integrity and professionalism because of the adverse effects of their actions on the company's continued existence if they decided to behave otherwise.

WORKINGS

W1. PPE

		K'000
Given amounts:		
Hapa		1,126
Sana		709
Pala		607
Adjustments:		
FV gain on acquisition of:		
Sana	[475-(383+61+25)]	6
Pala	[486-(363+82+50)]	(9)
Accumulated FV depreciation:		
Pala	[9/3x3]	9
PPE to report		2,448

W2. Goodwill on acquisition of:

Sana

	K'000
Cost of acquisition	441
NCI at acquisition	49
FV of identifiable NA at acquisition	(475)
Goodwill at acquisition	15
Impairment losses to date	(5)
Goodwill to report	10

Pala

	K'000
Cost of acquisition	
Direct (FV at acquisition)	105
Share of direct subsidiary's cost [90%x300]	270
NCI at acquisition [26% holding]	129
FV of identifiable NA at acquisition	(486)
Goodwill at acquisition	18
Impairment losses to date	(-)
Goodwill to report	18
Total Goodwill to report	28

W3. Other Components of Equity (OCE)

		K'000	
Hapa		212	
Share of post acquisition OCE of:			
Sana 90%[171-61]	99		
Pala 74%[152-82]	51.8		
Net adjustment in Equity on reducing holding in Sana:			
Disposal Proceeds	190		
Net assets at transferred to NCI in:			
Sana [see below]	[193.5]		
Pala [see below]	[117.5]		
			[121]
OCE to report		241.8	

W4. Net Assets transferred to NCI on reducing holding in Pala:

Sana		K'000
Net assets at 31.5.2019		629
FV gains at acquisition		6
Goodwill at acquisition less impaired amount		10
Net assets at 31.5.2019 attributable to Sana	645	
Net assets attributable to increase in NCI in Sana		
645x30%		193.5
Pala		
Net assets at 31.5.2019		635
FV losses at acquisition		[9]
Accumulated FV depreciation		9
Goodwill at acquisition less impaired amount		18
Net assets at 31.5.2019 attributable to Sana	653	
Net assets attributable to increase in NCI in Sana		
653x18%		117.5

W5. Retained Earnings:

	K'000
Hapa	212
Share of post acquisition OCE of:	
Sana 90%[75-25]	45
Pala 74%[120-50]	51.8
Accumulated FV depreciation [Pala] 9x74%	6.7
Reversal of gain on disposal of holding in Sana reported In separate FS of Hapa [see part (a) above]	[43]
Goodwill impairment losses – Sana 90%x5	[4.5]

Gain on remeasurement of earlier holding in Pala on		
Gaining control	[105-99]	6
Retained Earnings to report		4,007.0

W6. Non Controlling Interests [NCI]:

Sana			
		K'000	
At acquisition		49	
Post acquisition changes			
Retained earnings	10%[75-25]	5	
OCE	10%[171-61]	11	
Goodwill losses	10%x5	[0.5]	
Hapa's share of Sana's cost of investment in Pala			
	10%x300	[30]	
Increase in NCI on Hapa reducing holding in Sana			
[see above]		193.5	
NCI in Sana to report		228.0	
Pala			
At acquisition		129	
Post acquisition changes			
Retained earnings	26%[120-50]	18.2	
OCE	26%[152-82]	18.2	
Accumulated FV depreciation	26%x9	2.3	
Increase in NCI in Pala on Hapa reducing holding in Sana			
[see above]		117.5	
NCI in Sana to report		285.2	
Total NCI to report			513.2

SOLUTION TWO

a) Client 1 – Kapa Plc

IAS 21 '*Foreign currency transactions and entities*' requires assets and liabilities of a foreign subsidiary to be translated before being consolidated using exchange rate at reporting date. Goodwill in Bama Plc will therefore, be translated at an exchange rate at 31 May 2019 of K9.70 giving K11,640**W1** to be shown under non-current assets in the consolidated statement of financial position as at 31 May 2019. Kapa Plc should also recognise exchange loss on goodwill under other comprehensive income in its consolidated statement of profit or loss and other comprehensive income amounting to K360**W1.** This is as a result of the difference between goodwill translated at an exchange rate prevailing at acquisition date and at reporting date.

Client 2 - Dasaka Limited

The non – convertible loan issued to Hasala Limited will be recognised in the financial statements of Dasaka Limited as a financial asset at amortised cost in accordance with IFRS 9'*Financial Instruments'*. This is because it is a debt instrument and Dasaka Limited has no intention of selling it. Further the company will receive interest annually and principle amount at the end of three years. The financial asset will initially be recognised at K105,000**W2** on 1 June 2018. The said amount includes capitalised transaction cost of K5,000. The financial asset will be re-measured at 31 May 2019 by adding interest calculated at effective interest rate of K21,000**W2** and then deducting interest received amounting to K12,000**W2**. This will result in a carrying value of K114,000**W2** to be shown under non-current assets in the statement of financial position as at 31 May 2019. In addition, interest of K21,000**W2** will be recognised as income in the statement of profit or loss for the year ended 31 May 2019.

Client Three – Yala Plc

IFRS 16'*Leases*' provides for a single lessee accounting model requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value.

Under IFRS 16, upon commencement of the lease, Yala Plc should recognise a right-of-use asset and a lease liability. The right-of-use asset is initially measured at the amount of the lease liability plus any initial direct costs incurred and site restoration obligations. This amounts to K520,140**W5**.The lease liability is initially measured at the present value of the lease payments payable over the lease term, discounted at the rate implicit in the lease if that can be readily determined. The incremental borrowing rate of Yala Plc of 10% will be used as a discount rate in calculating lease liability as no implicit rate is provided in the lease agreement.

IFRS 16 requires recognised asset to be subject to depreciation and impairment review and carried in the statement of financial position after taking into account accumulated depreciation and accumulated impairment loss. The standard further requires cost of asset to be spread over the useful life of asset as opposed to lease period if the lessee will obtain ownership of asset at the end of lease period. This is applicable to Yala Plc as ownership of the filling station will be transferred to the company after the expiry of a – five (5) year lease period. The filling station should therefore be depreciated over the economic useful life of ten (10) years. This will result in depreciation charge of K52,014**W5** which will be charged to the statement of profit loss for the year ending 31 May 2019. The filling station will be recognised under non-current assets in statement of financial position as at 31 May 2019 at a value of K468,126**W5**.

The lease liability will be re-measured at 31 May 2019 by taking into account lease interest and lease payment for the year. This gives a total liability of K434,928**W6** which has to be split between current and non-current liabilities. K358,420.80**W6** should be shown under non-current liabilities while K76,507.20**W6** under current liabilities in the statement of financial position as at 31 May 2019. Lease interest of K50,448**W6** has to be expensed to the statement of profit or loss for the year ending 31 May 2019.

The cost of dismantling and site restoration of K30,000 should be recognised as a liability in the financial statements of Yala Plc. This is because it has met the recognition criteria of IAS 37'*Provisions, contingent asset and contingent liability'*. The ownership of the filling station will be transferred to Yala Plc and there is a legal requirement to dismantle it and restore the site to its original state. Being a future cost, the amount should be discounted using cost of capital of 12% to reflect the time value of money. This gives K9,660**W4**. This should be adjusted for an amount representing unwinding of discount to arrive at an amount of K10,819.20**W7** to be shown under non-current liabilities in the statement of financial position of Yala Plc as at 31 May 2019. The unwound interest amount of K1,159.20**W7** should be expensed to the statement of profit or loss for the year ended 31 May 2019.

Workings

1 Goodwill - Bama Plc

	US$	K
Cost of investment		
(K252,000 @ 10)	25,200.00	
NCI at acquisition (40% x 40,000)	16,000.00	
	41,200.00	
Less: FV of net assets at acquisition	40,000.00	
Goodwill	1,200.00	
Translated @ 10		12,000.00
Exchange loss (bal fig)		(360.00)
Translated @ 9.7		11,640.00

2 Non-convertible loan

Yr	Opening balance	Effective Interest @20%	Interest received @12%	Closing balance
	K	K	K	K
1	105,000.00	21,000.00	12,000.00*	114,000.00

*Based on principal amount (K100, 000)

3 Calculation PV of MLP

Yr	CF	DF @10%	PV
	K		
1 to 4	120,000.00	3.169	380,280.00
5	200,000.00	0.621	124,200.00
			504,480.00

4 Calculation of PV of Restoration cost

Yr	CF	DF @ 12%	PV
	K		K
1	30,000.00	0.322	9,660.00

5 Carrying value of Filling station

	K
PV of MLP **W3**	504,480.00
PV of restoration cost **W4**	9,660.00
Legal cost	6,000.00
Total cost	520,140.00
Depreciation over 10yrs	52,014.00
Value at 31 May 2019	468,126.00

6 Lease liability

	K
PV of MLP **W3**	504 480.00
Interest @ 10	50,448.00
Lease payment	(120,000.00)
	434,928.00
Interest @ 10	43,492.80
Lease payment	(120,000.00)
Non - current	358,420.80
Current (120,000 - 43,492)	76,507.20

7 Restoration cost provision

	K
PV **W4**	9,660.00
Unwinding of discount @12%	1,159.20
	10,819.20

SOLUTION TO THREE

Transaction One

Lusungu must account for the lave pay in accordance with IAS 19 Eployee Benefit Costs. The standard requires that costs of providing benefits to employees must be accrued in periods when the employee services are rendered and benefits earned as a reward for those services and not necessarily when the employees receive the benefits. Consequently, a reporting entity will report a liability in respect of benefits earned but not yet made available to the employees.

Lusungu will therefore report a liability in the SFP at 31.12.2018 in respect of leave days accrued and not yet taken by the managers as follows;

Manager	Accrued leave days at 31.12.2018	Leave Pay Liability (K)
A	(2X12+10-20) = 14	480,000X1.15X14/(5X52) = 29,723
B	(2X12+12-20) = 16	360,000X1.15X16/(5X52) = 25,477
C	(2X12+14-20) = 18	240,000X1.15X18/(5X52) = 19,108
	Total Leave Pay liability at 31.12.2018	74,308

The leave pay liability will be reported as a current liability as employees must use the days within the next calendar year.

In the SPL, Lusungu will report an expense in respect of the accrued leave pay. The expense will arise from the increase in the leave pay liability after adjusting for the amount paid in the year as follows:

Leave Pay liability Account		K
Bal b/d 1.1.2018 (working below)		48,000
Cash paid during the year to 31.12.2018 (working below)		(95,539)
		(47,539)
Leave Pay Expense for year ended 31.12.2018 (balancing amount)		121,847
Bal c/d 31.12.2018 (see above)		74,308
Working – Leave pay Liability at 1.1.2018		
A	480000X10/(5X52)	18,462
B	360000X12/(5X52)	16,615
C	240000X14/(5X52)	12,923
		48,000
Working – Cash paid for the leave days actually taken:		
A	480000X1.15X20/(5X52)	42,462
B	360000X1.15X20/(5X52)	31,846
C	240000X1.15X20/(5X52	21,231

	95,539

The leave pay expense must be presented in a relevant heading within operating expenses.

Transaction Two – Pension Scheme

The pension plan appears to be a defined benefit plan as Lusungu Plc has promised the benefits available upon retirement regardless of the amounts previously contributed to the scheme. It will therefore be accounted for as such in accordance with IAS 19.

A Net defined Benefit Pension Liabilty will be reported in the SFP at 31.12.2018 equal to the deficit on plan assets to the extent Lusungu is obliged to rectify the deficit computed as follows:

	K'000
Plan Assets at 31.12.2018 (20000-90)	19,910
Plan Liabilities at 31.12.2018	(25,000)
Net Defined Benefit Pension Liability	(5,090)

The Net Pension Liability must be presented within non current liabilities. IAS 19 requires that employer contributions not yet remitted must not be accrued and should not be included as part of the plan assets. However, employee contributions in arrears of K50,000 must be reported as a current liability as these are payable to the scheme on behalf of the employees having been deducted from their gross pay which has been charged as an expense in P/L.

In the SPLOCI for the year to 31.12.2018, Lusungu Plc must report all elements of the pension cost in P/L except for the remeasurement component which must be reported in OCI.

The total pension cost to report in P/L will be as follows:

		K'000
Service component:		
Current Service Cost		1,300
Past Service Cost	(1800-1300)	500
		1,800
Curtailment		(1,100)
Net Interest	(22500-17300)X12%	624
Total Pension Cost to Charge in P/L for y/e 31.12.18		1,324

The pension cost must be presented within operating expenses. The gain on curtailment must be presented in the same expense heading as the restructuring costs to ensure an offset.

The remeasurement component of the pension cost must be reported in OCI, items that are not reclassified in P/L. The remeasurement gain or loss for the year to 31.12.2018 is computed as follows:

		K'000
Net Pension Liability b/d 1.1.2018	(22500-17300)	5,200
Changes in y/e 31.12.2018 before remeasurement:		
Pension cost in P/L		1,324
Contribution paid		(1,500)
		5,024
Remeasurent Loss		66
Net Pension Liabilty c/d at 31.12.2018		5,090

SOLUTION FOUR

Issue of Preference Shares

Accounting for the preference shares appears to fall within the scope of IAS 32 Financial Instruments Presentation and IFRS 9 Financial Instruments.

The shares must be classified as equity as there does not appear to be any obligation to transfer cash. Dividends on the preference shares can only be paid upon declaring equity dividends. The shares are not compulsorily redeemable. The shares can only be redeemed at the issuer's choice. Therefore, there is no obligation to transfer cash.

The shares will initially and subsequently be measured at their fair value of K24 million (ie 2 millionXK10X1.2). A liability for for preference share dividends will accrue only upon declaring other equity dividends.

Issue of Loan Notes

At 31.12.2018, the loan notes liability must be measured at its fair value in accordance with the FVTPL Classification. Finance costs accruing on the the carrying amount of the loan notes liability during the Period together with remeasurement gains or losses during the period arising from general changes in market interest rates will be reported in P/L. However, any remeasurement gains and losses arising from changes in Likhezo's credit worthiness as reflected in specific interest rates will be reported in OCI (items that are not reclassified in P/L). These amounts are computed as below.

Fair Value at 3112.2018 to report as liability (Current liability):

Date (31.12)			Cashflow	PV factor	PV (K'm)
2019	Interest	8%XK100X1million	8		
	Principal	K100X1million	100		
	Total		108	1.0935ˆ-1	98.77

The loan notes liability will therefore be reported at a carrying amount of K98.77 million at 31.12.2018.

Amounts to report in the SPLOCI for the year to 31.12.2018 will be as follows:

P/L		K'm
Finance cost on the liability carrying amount	K99.11 millionX8.5%	(8.42)
Remeasurement gainloss due to general changes in market interest Rates (working)		0.92
Net Finance Cost to Charge in P/L		(7.5)

OCI – Items that are not reclassified in P/L
Remeasurement gainloss due to specific changes in market interest
Rates (working) (0.16)

Workings – Total Remeasurement gains/losses on the FVTPL liability

		K'm
Bal b/b 1.1.2018		99.11
Finance cost accrued	99.11X8.5%	8.42
Less cash paid	8%XK100X1million	(8)
Carrying Amount before remeasurement		99.53
Total remeasurement gain (balance)		(0.76)
Bal c/d 31.12.2018	(see above)	98.77

Workings – Remeasurement gains/losses on the FVTPL liability due to general changes and specific
changes in market interest rates:

- Percentage change in general interest rates during y/e 31.12.18:
  (10.08-9)X100/9 = 12% increase
- Expected specific interest rate at 31.12.208 in line with general increase:
  1.12X8.5 = 9.52%
- Expected Fair value at 31.12.2018 in line with general changes in interest rates:
  1.0952ˆ-1X108 (see above) = K98.61 million
- Loss due to specific changes in interest rates (98.77-98.61) = K 0.16 million
- Gain due to general changes in in interest rates (99.53 -98.61) = K 0.92 million

Investment in Loan Asset

The loan asset must be measured at amortised cost at 31.12.2018, using the original effective interest rate of 20.4%. This gives a gross carrying amount at 31.12.2018 computed as follows:

		K'm
Fair value on initial recognition (1.1.2018)	(200-2)	198
Finance Income for y/e 31.12.2018	198X20.4%	40.39
Cash received 31.12.2018	200X20%	(40)
Gross Carrying Amount at 31.12.2018		198.39

The gross carrying amount will be reported in the SFP at 31.12.2018 net of the allowance for expected losses as at that date. The finance income of K40.39 million will be reported in P/L under that heading.

As the credit rating of the borrower has significantly changed, Likhezo will now remeasure the loss allowance based on possible defaults over the entire unexpired term to maturity. However specific impairment losses will not be recognised as there is no evidence of actual impairment. The loss allowance at 31.12.2018 will be computed as follows:

	K'm
Gross Carrying Amount at 31.12.2018	198.39
Expected Future Cash Receipts discounted at original effective rate (working)	(187.85)
Loss Allowance at 31.12.2018	10.54

The increase in the loss allowance of K6.54 million (ie 10.54–4) must be charged in P/L against the finance income to arrive at the Net Finance Income to report in P/L of K33.85 million (ie40.39-6.54) .

The net Loan Asset to report in the SFP at 31.12018 will be K187.85million (ie 198.39-10.54).

Workings – Expected Future Cash Receipts discounted at original effective interest rate:

Date (31.12)	Nature of Cashflow	Amount	Probablity	Expected Csahflow	PV factor @20.4%	PV (K'm)
2019	Interest	100%X40 = 40	0.8	0.8X40 = 32		
	Interest	90%X40 = 36	0.15	0.15X36 = 5.4		
	Interest	75%X40 = 30	0.05	0.05X30 = 1.5		
Expected				38.9	1.204ˆ-1	32.31
2020	Interest	100%X40 = 40	0.75	0.75X40 = 30		
	Interest	90%X40 = 36	0.10	0.10X36 = 3.6		
	Interest	75%X40 = 30	0.15	0.15X30 = 4.5		
Expected				38.1	1.204ˆ-2	26.28
2021	Interest	100%X40 = 40	0.7	0.7X40 = 28		
	Interest	90%X40 = 36	0.1	0.1X36 = 3.6		
	Interest	75%X40 = 30	0.2	0.2X30 = 6		
	Principal	100%X200 = 200	0.7	0.7X200 = 140		
	Principal	80%X200 = 160	0.3	0.3X160 = 48		
	Expected			225.6	1.204ˆ-3	129.26
Expected Future cashflow discounted at original effective interest rate						187.85

Appendix to the analysis		

SOLUTION FIVE

Part (a)

Financial performance (Profitability)

Nthena has increased revenue by almost 20% in the year and has managed to improve its gross margin from 25.5% to 27.7%. This is a significant improvement in performance and to increase margins in a period of expansion shows either good management of resources or an indication that the entity is benefiting from economies of scale. The operating profit shows just a minor increase in margin, due to increases in both administration and distribution expenses. It is possible that depreciation charges could have increased due to new investment and revaluations in the year or the expansion of activities resulting in a wider distribution network.

The profitability has been boosted by the investment income from the equity financial asset investments, with profit for the year margin increasing by 9.1% from 6.2%. It should be noted that there was no income from the equity financial asset investments in 2017, possibly because they were acquired towards the end of that financial year or after dividends were paid and hence 2018 is possibly the first year to show this income. These investments have also generated valuation gains both in 2018 and 2017. This together with the significant income generated this year suggests that management has made a sound investment. It is also possible that if the entity was short of cash these assets could be easily sold to generate liquidity.

Investor ratios (Stock market Performance)

The increase in profit for the year has had a positive impact on the earnings per share (EPS). It has increased from K0.42 per share to K0.73 per share. The dividend yield, however, has fallen significantly from 6.6% to 1.8%. This is not necessarily an indication of poor results. The entity paid a dividend of K100 million last year but reduced that dividend to K50 million this year. This could show good management as they are actively retaining profits in a period of expansion. In addition, the entity is clearly investing in inventories and property, plant and equipment so paying a higher dividend would have put undue pressure on the cash flow. It appears that the fall in dividend has not negatively affected the market perception of the entity, as the share price has increased significantly from K5.08 to K9.27. The P/E ratio has also increased from 12.1 to 12.7 showing that the market has confidence in the entity and its management despite the drop in dividend yield.

Financial position

Gearing has increased slightly but this is due to the short term borrowings at the year end. The long term debt will have increased only by the amortised interest and is not due for redemption/conversion for another year. The revaluation in the year will also have reduced the gearing level. The interest cover has decreased from 32.0 to 11.7 and this is likely to be due to higher interest being charged on the overdraft. There is still adequate interest cover and the interest may come down in the future if the application for the longer term finance is approved.

Ratio	**2018**	**2017**
Earnings per share (EPS) PFY/number of shares	218/300 m shares = 0.73 per share	126/300 m shares = $0.42 per share
Price/earnings ratio (P/E) Share price /EPS	9.27/$0.73= 12.7	5.08/$0.42= 12.1
Dividend yield Dividend per share/share price	(50/300m shares)/9.27x 100 1.8%	(100/300 m shares)/5.08 x 100= 6.6%
Gross profit margin (GP/Revenue x 100)	665/2,400 x 100= 27.7%	515/2,020 x 100= 25.5%
Operating profit (Profit before associate and finance costs/revenue x 100)	(665-144-287)/2,400 x 100= 9.8%	(515-103-220)/2,020x100 = 9.5%
Profit margin PFY/revenue x 100	218/2,400 x 100= 9.1%	126/2,020 x 100 6.2%
Gearing Debt/Equity	(200+58)/1,322 x 100= 19.5%	188/1,052 x 100= 17.9%
Current ratio Current asset/current liabilities	758/257 = 2.9	676/134= 5.0
Quick CA – inventories/current liabilities	(758-290)/257= 1.8	(676-130)/134= 4.1
Interest cover Operating profit/finance cost	234/20 = 11.7	192/6= 32.0
Inventories Inventories / cost of sales x 365	290/1,735 x 365= 61 days	130/1,505 x 365= 32 days
Payables Payables/cost of sales x 365	199/1,735 x 365= 42 days	134/1,505 x 365= 32 days
Receivables Receivables /revenue x 365	468/2,400 x 365= 71 days	402/2,020 x 365= 73 days
NCA turnover Revenue /PPE	2,400/766= 3.1	2,020/448= 4.5

Total asset turnover Revenue / Total assets	2,400/(1,822-298)= 1.6	2,020/(1,404-280)= 1.8
ROCE % Operating profit/capital employed	234/(1,322+200) x100= 15.4%	192/(1,052+188) x100= 15.5%

Receivable days are largely unchanged from the previous year so it appears that expansion of activities has not compromised credit control. Payable days has increased by 10 days, however this could well be the result from a significant order at the year-end as inventory days have also increased. Indeed payable days even in 2018 are relatively low and it would be beneficial to have payables and receivables days being closer. EMS waits almost double the time to receive its cash than it takes to pay its own suppliers which puts additional pressure on the cash flow.
This can also be seen from the quick ratio which has reduced from 4.1 to 1.8, although this would still be considered an acceptable liquidity ratio in most business scenarios. Inventories days have increased from 32 to 61 days at the year end. As already mentioned this could be due to a large inventory purchase prior to the year end in anticipation of increasing demand.
It is encouraging that the management has been proactive and has applied for longer term finance to fund the ongoing expansion, and if this is approved there is likely to be no issue with cash management going forward. If interim reports were available, it would be worth reviewing the bank position to establish whether this is already the case.

Conclusion

Nthena appears to be a well-managed, profitable business with opportunities for both an income stream through the regular receipt of dividends, and capital growth, as the share price and P/E ratio are increasing.

I would recommend you invest.

Part (b)

The holders of the convertible debt will have the option to have their investment repaid or converted into ordinary shares.

If the majority choose to convert then the share capital of EMS will increase. This may reduce EPS, as the denominator is the number of equity shares and an increase in this will reduce the overall figure. A similar impact will occur with the calculation of dividend per share as more shares will be in issue. The impact on the P/E ratio and the dividend yield will be dependent on market forces and how the market reacts to having more shares in issue. The share price could improve as there could be more liquidity in the shares. Given that the existing and potential investors will be able to see a diluted eps figure reported in the accounts and will know that the convertible/redemption date is due, it is clearly not having a negative impact as the share price has increased significantly in the last year.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 13 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE

Chalo Ltd is a large company which manufactures plastic products. Until recently it has been successful. Recent legislation passed by Parliament that limits the use of plastic packaging has resulted in reduced profitability and liquidity. Your firm, Abraham & Co. successfully tendered for the audit of Chalo Ltd in 2015. You are an Audit Manager in Abraham & Co. and you are currently planning the audit of the financial statements for Chalo Ltd for the year ended 31 January 2019.

The Engagement Partner held a meeting with the Finance Director and a number of issues were discussed including the use of the business risk approach.

Professional and ethical issues

The Finance Director of Chalo Ltd, John Manyepa, has made four (4) suggestions as follows:

1. Audit team – since the board of directors wants the audit to be finalized in the shortest possible time, the last year's audit team members must be used.
2. Last year's audit fees – 70% of the fees for 2018 are still outstanding. The audit fees will be paid after signing the audit report for 2019.
3. Corporate finance – Abraham & Co. should assist Chalo Ltd in identifying sources of additional capital.
4. Provision of tea and biscuits – Chalo Ltd will provide tea and biscuits throughout the audit at 10:00 hours and 15:00 hours.

Computer Assisted Audit Techniques (CAATs)

On 1 January 2019, Abraham & Co. acquired file interrogation audit software from a reputable software vendor. The Engagement Partner has authorized the use of this audit software.

Preliminary materiality

The Engagement Partner has used the draft financial statements for Chalo Ltd to calculate a materiality level of K8 million. He wants you to use this as an opportunity to explain to the recently recruited Chartered Accountant (CA) Zambia graduates the use of materiality and other factors used to determine materiality apart from value. The performance materiality for each financial statement area will be calculated later in the audit process.

Chalo Ltd.'s operations

The company buys most of its raw materials from countries in Europe. The production equipment was manufactured and installed by a company resident in an Asian country. The same company supplied similar equipment to six competitors of Chalo Ltd.

European countries are facing economic difficulties and suppliers of raw materials are now demanding advance cash payments for all deliveries. The Production Director resigned on 31 December 2018 due to differences with the Finance Director over delayed payments to local suppliers.

On 27 February 2019, production was stopped for four days following customer complaints over the quality of the products. Two national newspapers carried articles on this issue.

Misappropriation of assets

You have assessed the risk of misappropriation of assets as high. During the year ended 31 January 2019, seven employees in the accounts department were dismissed for diverting company proceeds into their personal accounts and fifteen employees in the production department were dismissed for using portable production machines for personal use. Management is worried because the control systems have been assessed as being very strong and yet portable production equipment is being misused. The company also has an elaborate risk management system.

Required:

(a) Discuss the ethical implications for the audit of the four (4) suggestions made by John Manyepa, recommending any further actions which should be taken. (12 marks)

(c) Explain to the recently recruited Chartered Accountant (CA) Zambia graduates the use of materiality and other factors used to determine materiality apart from value. (6 marks)

(c) Identify and explain six (6) key business risks that exist in Chalo Ltd. (9 marks)

(d) Evaluate whether a business risk approach will be suitable for the audit of Chalo Ltd. (4 marks)

(e) Explain the major considerations to be taken into account when deciding whether to use file interrogation audit software in the audit Chalo Ltd. (4 marks)

(f) Explain how the auditors might conduct their audit in response to an assessed risk of fraud in Chalo Ltd. (5 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

Tiger Manufacturing Plc. is a manufacturing company which has been operating for many years. Your firm of Chartered Accountants has been engaged to carry out a forensic investigation following huge losses of money in the company.

The previous auditors issued unmodified opinions in the past years and yet the company is threatened to be taken over by the bank because of poor liquidity and other operational problems experienced.

Your initial work reveals a number of issues including the following matters:

1. The control environment in the organization is poor with many instances of management override of controls.
2. The company sells 40% of its products to wholesalers who are given thirty days credit in which to pay. Due to low demand by the final consumers, the wholesalers are taking much longer to pay for goods purchased resulting in an increase in credit days to over sixty days in the last few months.
3. Due to the low demand of its products, the company has large quantities of stocks most of which are nearly reaching the expiry dates. The company is considering selling such stocks at discounted prices in order to recover some money, but at lower prices than the cost of production.
4. Successful competitor who imports the same products that Tiger Manufacturing Plc.

As a result of the problems facing the company, the share prices dropped significantly in the last few months and shareholders lost money as a result. Further, the bank is concerned that the company will not be able to repay the outstanding loan and the assets against which the loan is secured will not be able to cover the amount of the loan as the recoverable amount is lower than the carrying value of the assets.

The shareholders and the bank are considering suing the former auditors for professional negligence arising from the fact that they issued unmodified opinions despite the fact that the company is clearly not a going concern.

Your review of the permanent audit file contains the engagement letter issued by the previous auditors and it contains the following clause, 'The auditors owe no duty of care to the company and third parties arising from professional work performed. This is arising from the fact that the auditors do not give an absolute assurance on the financial statements.'

Required:

(a) Advise the following on their chances of successfully suing the former auditors for professional negligence:

(i) The shareholders. (6 marks)

(ii) The bank. (4 marks)

(b) Link any business risks in Tiger Manufacturing Plc. to the risk of material misstatements. (10 marks)

[Total: 20 Marks]

QUESTION THREE

(a) You are the Audit Manager in the audit of Rapid Tech Construction Company. This is a company in road construction and land clearing and has seen rapid growth in the last three years.

The company has two major shareholders and one of the shareholders is actively involved in the running of the company. The other shareholder is a politically exposed person who over the last two years has managed to get large contracts from government.

You assigned Mbewe a Senior Audit Assistant to perform audit tests on payments in the cash book.

The company maintains two bank accounts one in the local currency and the other in dollars. It was noted that five deposits were made into the dollar account on five different occasions and the money was withdrawn soon after with no proper explanations of the withdrawals.

These receipts were not proceeds for work done and on enquiry Mbewe was told that the funds were not for this business and the dollar bank account was simply being used to receive funds for a different business with customers abroad.

Mbewe has expressed his concern over these transactions and he suspects that this client may be involved in money laundering. Mbewe consulted the Money Laundering Reporting Officer (MLRO) who suggested that Mbewe ignores these transactions and removes them from the sample that he had selected. Mbewe was not pleased with the suggestion by the Money Laundering Reporting Officer (MLRO) and was of the view that he should not drop these transactions and that if there is any illegality it should be reported to the Drug Enforcement Agency.

Mbewe has come to you for advice on how he should proceed with the above matter.

Required:

(i) Explain the meaning of money laundering and give two (2) examples of money laundering as per Prohibition and Prevention of Money Laundering Act 2001. (3 marks)

(ii) Discuss how the suggestion by the Money Laundering Reporting Officer (MLRO) will be in breach of the provisions of the Prohibition and Prevention of Money Laundering Act 2001. (5 marks)

(b) You are in charge of quality in your firm of Chartered Accountants. You were presented with working papers for three of your firm's clients for you to review as part of quality control.

The following information has been extracted from the working papers:

Kudu Ltd:
At the time of reviewing the working papers of this client, the audit was in its final stages and the audit report had not yet been signed.

During the review you establish that Kudu Ltd was trading with another company Deer Ltd. The major shareholder in both companies is Charles who owns 60% shares in each of the companies. At the year-end you establish that there is a material amount owed by Deer Ltd.

Sable Ltd:
In reviewing the work performed on tangible non-current assets you establish that the company carried out a revaluation of its properties. The company has several properties situated in Lusaka and Ndola on the Copperbelt. The lead schedule shows that there were both revaluation gains and losses on some properties and the properties were revalued five years earlier.

The revaluation of the properties was carried out by Real Estates Properties, a real estate company which offers revaluation services.

Puma Ltd:
At the time of reviewing the working papers of Puma Ltd, the audit had been completed and the audit report already signed by the Engagement Partner.

Puma Ltd is a transport company with a large fleet of trucks. In the year under review it acquired ten new trucks on lease from Leasing Company Ltd. The working papers show that the ten trucks have been capitalized in the Statement of Financial Position of Puma Ltd.

Required:

(i) Discuss the importance of peer reviews in an audit of financial statements and state the type of review of the working papers of Kudu Ltd and Puma Ltd. (6 marks)

(ii) Discuss the audit evidence you expect to find in the review of the working papers of each of the three clients above. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Your firm of Chartered Accountants has recently been appointed auditor of Medicare Clinic. This is a private hospital offering specialized medical care and used by the elite in society.

The audit for the year just ended is about to commence and you are leading a team of auditors to carry out a risk assessment in line with the provisions of ISA 315 (Revised) *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment.*

Medicare Clinic Stocks various drugs some of which are restricted and can only be administered on the prescription of medical practitioners. Inventory count is conducted once at the end of the year. All stocks of inventory are managed by the Pharmacist who receives new stocks and also issues drugs to patients and other units of the clinic. There is no proper management of inventory held on hand and the Pharmacist issues drugs based on prescriptions by doctors and requisitions by the nurses bay.

The clinic has three categories of clients as follows.

The first category of clients are patients who come for medical services but do not have a long term relationship with the clinic. The passerby patients are required to pay for consultation before being attended to. When they have been attended to, they are required to pay the balance for any prescribed medicines and other services.

The second category of patients is the one of clients who deposit a lump sum of money with the clinic and draw down as they receive services from the clinic. When the balance on account drops to an agreed amount they are required to pay an additional amount to bring the balance back to the agreed amount.

The third category comprises corporate customers who have a medical scheme for its staff. The company is required to make an initial deposit of K300 000. Credit is extended to these clients whereby they are required to settle the outstanding balance within 30 days of the end of the previous month.

The procedure is that registered staff and their registered dependants receive medical care and the bills are charged to the company account. At any point in time the bills for services offered are not supposed to exceed twice the initial deposit agreed upon.

Experience has shown that a number of corporate customers accumulate bills in excess of the agreed deposit. A total of K1.2 million is overdue and has been outstanding for more than six months. Some of the outstanding amounts arise from disputes with corporate customers who are disputing some of the patients who were attended by the clinic arguing that they are not among the registered people.

During the year under review there was a revaluation of the properties owned by Medicare Clinic. The revaluation was carried out by an estate agency company in which one of the shareholders of Medicare Clinic has an interest.

The period end of Medicare Clinic is 31 December 2018. The following matters arose subsequent to the period end:

1. Inventory worth K200 000 was destroyed in January 2019 because the drugs expired and the Medicare risked being sued for stocking and prescribing expired drugs.
2. There was a settlement of a court case involving a case in which Medicare Clinic was sued for professional negligence by a patient.
   At the period end a provision of K250 000 was made in the financial statements. The court has determined after the year end that Medicare Clinic is liable to pay K500 000.
3. Early in the subsequent period thieves broke into the warehouse where drugs are kept and got away with inventory worth K350 000. The drugs that were stolen were part of those that were received just before the year end.

Required:

(a) Distinguish between audit risk and business risks in Medicare Clinic considered at the planning stage of an audit of financial statements. (5 marks)

(b) Evaluate the audit risks that exist in Medicare Clinic and discuss the possible responses that your firm will take in response to the identified risks. (9 marks)

(c) Evaluate the treatment of the three (3) matters after the period end in Medicare Clinic. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

Exotic Foods Restaurant is a popular restaurant that has been operating for a long time. This is a highly regulated industry regulated by the Foods and Medicine Regulatory Board.

The following additional information is available concerning Exotic Foods Restaurant:

1. During the year under review, the restaurant was found to be non-compliant with regards to serving expired food to customers and the restaurant did not meet the safety requirements. This resulted in the temporal closure of the restaurant until the restaurant complied with the regulations.

2. Quick Chartered Accountants have been the auditors of Exotic Foods Restaurant for the last five years. Before the end of the current year, the board resolved to terminate the services of the auditors. A letter terminating the services of the auditors was sent to the Quick Chartered Accountants.

3. The board advertised in the press for expression of interest by audit firms to offer audit services to Exotic Foods Restaurant. In response to the advertisement, your firm of Chartered Accountants bid and was shortlisted awaiting approval by members at the annual general meeting.

4. An extra-ordinary general meeting was called before the year end to among other matters fill the vacant position of auditors. It was resolved that your firm be appointed auditors taking over from Quick Chartered Accountants.

The Finance Manager of Exotic Foods Restaurant has informed you in a meeting that there has been a disagreement by the directors with regards to following laws and regulations in running the restaurant. The directors are of the view that strict adherence with laws and regulations would be very expensive for the restaurant has an adverse impact on profitability in an industry which is highly competitive.

The Finance Manager intimated to you that the previous auditors threatened to modify the audit report if the restaurant failed to adhere to regulations. Due to a disagreement on this matter, the board resolved to remove the previous auditors. He hopes that your firm will take a softer line with regards to compliance with laws and regulations.

In an effort to reduce audit costs, the Finance Manager suggested to you that since the restaurant has just recruited an internal auditor, your firm may wish to perform tests of control and analytical procedures only and perform much less substantive tests.

Your firm has no previous experience in the audit of financial statements of companies in this industry.

Required:

(a) Discuss the need for auditors to evaluate non-compliance with laws and regulations clearly stating the impact on the audit report of alleged non-compliance. (5 marks)

(b) Discuss the procedures that your firm will take:

(i) Before accepting the appointment as auditor of Exotic Foods Restaurant. (4 marks)

(ii) After accepting the appointment as auditor of Exotic Foods Restaurant. (4 marks)

(c) Discuss the purpose of analytical procedures, tests of control and substantive tests in the planned audit of Exotic Foods Restaurant. (7 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.2 ADVANCED AUDIT AND ASSURANCE SUGGESTED SOLUTIONS:

SOLUTION ONE

a) Ethical implications and further action:

Using the last year's audit team

The Finance Director has requested Abraham & Co. to use last year's audit team. This makes commercial sense for both Chalo Ltd and Abraham & Co. It may contribute significantly to the efficiency and effectiveness of the audit. The Finance Director has the right to make suggestions but ethical standards require the Engagement Partner to exercise professional judgment and ensure independence is preserved.

The action to take will depend on the impact on independence. If independence will not be affected the request should be accepted. However, if independence will be affected, then the Engagement Partner should discuss the matter with the Finance Director and politely decline the request.

Overdue fees

Abraham & Co. runs the risk of, in effect, making a loan to Chalo Ltd, where upon the guidance on loans and guarantees becomes relevant. An audit firm or individual on the assurance engagement should not enter into any loan or guarantee arrangement with a client that is not a bank or similar institution.

The outstanding fees representing 70% of last year's fees is significant and is likely to create a serious self-interest threat. The possible actions to take include:

- Abraham & Co. should guard against fees building up and being significant by discussing the issue with those charged with governance.
- If necessary, the possibility of resigning if overdue fees are not paid.
- Not continuing with the audit work until the overdue fees are settled.
- If fees still remain unpaid after the audit opinion is issued, an additional professional accountant who did not take part in the audit should provide advice or review the audit work.

Corporate finance

Certain aspects of corporate finance will create self-review threats that cannot be reduced to an acceptable level by safeguards. Therefore, audit firms are not allowed to promote, deal in or underwrite an assurance client's shares. They are also not allowed to commit an assurance client to the terms of a transaction on the client's behalf.

Other corporate finance services, such as assisting a client in defining corporate strategies, assisting in identifying possible sources of capital and providing structuring advice may be acceptable, providing that safeguards, such as using different teams of staff, and ensuring no management decisions are taken on behalf of the client.

The action to take is that Abraham & Co. should accept to assist Chalo Ltd in identifying sources of additional capital and put in place the recommended safeguards.

Provision of tea and biscuits

The International Ethics Standards Board for Accountants (IESBA) code states that gifts and hospitality should only be accepted where the value is trivial and inconsequential. The provision of tea and biscuits may create a self-interest threat but is unlikely to impact on independence and objectivity of Abraham & Co. The value will be trivial and inconsequential. Provision of tea and biscuits is a normal gesture given to any person in business.

The action to take by Abraham & Co. is simply to accept this suggestion as it is unlikely to compromise independence.

b) Use of planning materiality and other factors:

ISA 320 *Materiality in planning and performing an audit* provides detailed guidance to auditors in this area. The objective of the auditor is to apply the concept of materiality appropriately in planning and performing the audit. Materiality assessment will help the auditors to decide:

- How many and what items to examine
- Whether to use sampling techniques
- What level of misstatement is likely to lead to a modified audit opinion

An item might also be material due to its:

- **Nature** – given the definition of materiality as an item that would affect the readers of the financial statements, some items might by their nature affect readers. Examples include transactions related to directors, such as remuneration or contracts with the company.
- **Impact** – some items may by chance have a significant impact on financial statements, for example, a proposed journal which is not material in terms of value but could convert a profit into a loss.

c) Key business risks that exist at Chalo Ltd

Key business risks	Explanations
1. Dependence on plastic products	Chalo Ltd only produces plastic products which are under threat from both government and environmentalists. This could mean that the going concern status of Chalo Ltd is questionable. Profitability and liquidity are falling.
2. Resignation of Production Director	Management experience and knowledge is very important for any company. The resignation of the Production Director could affect the quality of products and eventually lead to loss of customers. This could reduce profits even further. On 27 February 2019, production was halted for four (4) days following customers' complaints over the quality of the products.
3. Delayed payments to local suppliers	It is possible that local suppliers could start demanding advance payments or simply stop supplying. This could have an adverse impact on operations of Chalo Ltd.
4. Competition	Competition has increased given that the same Asian company has manufactured and installed production equipment for six (6) other companies in Zambia. Chalo Ltd may not survive since the Zambian Market may not be very big to accommodate seven (7) large manufacturing companies.
5. Legislation	Fines/penalties could be significant enough to prevent the continuance of the business.
6. Bad publicity due to poor quality	Two national newspapers carried articles on customers' complaints over the quality of the products. This could lead to customers choosing other suppliers resulting in loss of market share significant enough to prevent the business from continuing in operation.
7. Labour difficulties	This has a direct impact on operations and cash flows. It may also discourage would be investors. Disgruntled employees could use this to discredit and effectively de-market the Chalo Ltd.
8. Advance payments	Chalo Ltd may not have the capacity to arrange advance payments. If alternative suppliers with more flexible terms are not found, this could be the end for the company.
9. Exposure to foreign exchange rate fluctuations	Chalo Ltd buys most of its raw materials from countries in Europe. The fluctuations in the exchange rate could make imports very expensive if the company does not hedge its foreign transactions.

d) Evaluation of whether a business risk approach (audit strategy) will be suitable for the audit of Chalo Ltd

The business risk approach is often taken for large companies, who have strong controls who are accustomed to the concepts of risk management and awareness. Chalo Ltd is a large company with control systems assessed as strong. It is possible that Chalo Ltd has a detailed strategic plan clearly outlining the company's vision and mission statements, including the various supportive objectives. Abraham & Co. could use the business risk approach especially if the elaborate risk management system is assessed as effective. This will mean Abraham & Co. will be able to rely on the business's own ability to manage risk effectively.

e) Major considerations to be taken into account on the use of file interrogation audit software in the audit Chalo Ltd:

- **Auditors' basic understanding** – As a minimum the members of the audit team will require basic understanding of data processing and Chalo Ltd.'s computer application, together with a detailed knowledge of the audit software and computer files used.
- **Complexity** – Depending on the complexity of the application, the auditors may need to have a sound appreciation of systems analysis, operating systems and, where program code is used, experience of programming language to be utilized.
- **Transferability of data** – Abraham & Co. will need to consider how easy it is to transfer the Chalo Ltd.'s data onto the auditors' computer.
- **Client's knowledge** – Chalo Ltd may lack full knowledge of the computer system, and hence may not be able to explain fully all the information it produces.

f) Response to an assessed risk of fraud:

ISA 240 *The auditor's responsibilities relating to fraud in an audit of financial statements* gives guidance to the auditors in the area of fraud. Fraud fall into two main categories and is a major risk for most organizations which can result in the misstatement of figures contained in the financial statements.

When the risk of fraud is assessed as high as is the case with Chalo Ltd, the auditor needs to respond appropriately in order in order to ensure that any misstatements that may arise as a result of fraud are detected.

The auditors can respond as follows to the increased risk of fraud in Chalo Ltd:

- Discuss with the audit team during the pre-audit meeting the risk of fraud in Chalo Ltd so that all audit team members are aware of the existence of this risk.

- Emphasize to the audit team members the need for observance of professional skepticism throughout the audit so that members look out for any fraud risk factors that may exist during the audit.
- The firm may wish to assign staff with requisite experience to be part of the audit team of Chalo Ltd. Inexperienced staff may not have the capabilities to identify where fraud has been committed.
- The audit team will need to pay more attention in areas where the internal controls of Chalo Ltd are assessed as poor because these are the areas where fraud is more likely to be perpetuated.
- Discuss with management on what action they have put in place to reduce the risk of fraud in Chalo Ltd.
- Obtain written representations from management and those charged with governance concerning fraud that they are aware of or that they suspect.

SOLUTION TWO

a) Legal action against the auditors:

i. Litigation by shareholders:

In order to successfully sue the auditors for professional negligence there has to be a legally binding contract between the litigant and the auditors. Generally the auditors enter into a contract with the company.

The shareholders of Tiger Manufacturing Plc. will need to sue as shareholders as a whole and not as individuals. The following three matters will be considered and are important for the court to determine the case:

Duty of Care:

The general rule is that there should be duty of care by the auditor to the party suing the auditors. In the case of the company it is presumed that a duty of care exists between the auditors and the client. This is regardless of the express terms that may be contained in the agreement between the client and the auditor.

In this case, the clause contained in the engagement letter will have no effect and the court will assume that the former auditors have a duty of care to the company being the shareholders as a whole.

The shareholders of Tiger Manufacturing Plc. do not need to prove to the court that there being a duty of care by the auditors.

Breach of duty of care:

In order to successfully sue the auditor, the injured party must prove that there was a breach of the duty of care.
In this case the shareholders of Tiger Manufacturing plc. will have to prove to the court that the former auditors were negligence in the performance of their work.

Suffering loss as a result of breach:

The injured party should prove that they suffered loss as a result of the breach of duty of care.

In this case the shareholders of Tiger Manufacturing Plc will need to prove that they suffered losses on the shares and that this is attributed to the fact that the auditors were negligent.

If any of the three conditions fail, it is unlikely that the litigants would succeed in suing the auditors.

Advice:
The shareholders of Tiger Manufacturing Plc can commence legal action against the auditors since the duty of care is implied and they will only need to prove the last two points above.

ii. **Litigation by the bank:**
Courts have been reluctant to attribute a duty of care to third parties. The leading case is the Caparo case where it was decided that the auditors do not owe a duty of care to third parties.

The position with regards banks and other lenders is such that banks and other lenders are excluded from the decision of the Caparo case.

Usually banks include a clause in the loan agreements that they will require to have access to the financial statements on a regular basis when reviewing the loan facility. In this way the bank may document a relationship with the auditors in order to establish a duty of care. Unless the auditors issue a disclaimer it may be assumed that they owe a duty of care to the bank as they should know that banks may rely on audited financial statements when entering and reviewing loan agreements. (*Bank of Scotland v Bannerman*)

Advice:
In view of the fact that there is no mention of a disclaimer from the bank the bank may go ahead and sue the former auditors as a duty of care may be implied under the exception.
The bank will, however, need to prove that there was a breach of care and that the bank suffered loss as a result of the breach of the duty of care by the auditors.

b) Business risks and risk of material misstatements:

Poor control environment:

The control environment in Tiger Manufacturing Plc. is poor with management overriding controls. The internal controls are meant to prevent and detect fraud and error. Poor controls are a business risk which will cause Tiger Manufacturing Plc to fail to meet its objectives.

Link to risk of material misstatement:
The poor controls and management’s override of controls can result in errors and fraud not being detected. This can result in the misstatements of the figures in the financial statements for which the controls have failed.

Extended credit by customers:
The increase in debtor's days from 30 days to 60 days could result in Tiger Manufacturing Plc. facing liquidity problems. This could result in the company failing to meet its dues as they fall due. Lack of funds will adversely affect the company operations and will impact on profitability.

Link to risk of material misstatement:
The delays in customers of Tiger Manufacturing Plc. paying could result in some of them failing to pay and so be bad debts. This is compounded by the fact the Tiger Manufacturing Plc itself has large stocks of slow moving items which may also be the case with their customers.

Obsolete stocks:
Tiger Manufacturing Plc. risks running out of saleable stocks in view of its poor liquidity arising from customers extended credit. The increase in stocks nearing expiry dates may result in Tiger Manufacturing Plc. losing the value of this inventory if it is not sold before expiry date.

Link with risk of material misstatements:
The fact that Tiger Manufacturing Plc intends to sell its stocks at below cost means that there is a risk of misstatement of inventory arising from stocks being valued above net realizable value.

Non-compliance with laws:
The fact that Tiger Manufacturing Plc. deals in products that have expiry dates indicates that there are laws which regulate the sale of expired goods. There is a risk that Tiger Manufacturing Plc. may breach the laws and sell expired good to unsuspecting customers. The company risks being sued and having to pay penalties.

Link to risk of material misstatements:
Provisions for non-compliance with laws and regulations may be misstated. There could be litigation against Tiger Manufacturing Plc for non-compliance with laws and regulations and management may wish to conceal this.

Entry of a successful competitor:
The entry in the market of a successful competitor will have adverse effects on the business of Tiger manufacturing Plc. This could result in Tiger Manufacturing Plc. facing going concern problems and may lead it into liquidation if it fails to collect its debts. Customers my switch to the new competitor for their future requirements.

Link to risk of material misstatement:
Going concern has implications on the basis of the preparation of the financial statements of Tiger Manufacturing Plc. There is risk that the management of Tiger Manufacturing Plc. may present the company as a going concern when it is not.

SOLUTION THREE

a) Money Laundering

i. Meaning of Money laundering:

This is a process by which criminals conceal the true source and ownership of proceeds of crime and try to cover the crime and legitimize the funds.

Examples of how money laundering may be perpetuated:

- Directly or indirectly engaging in a business transaction that involves property that was acquired with the proceeds of crime.
- Receiving, possessing, concealing, disguising, disposing or bringing into the country, any property derived from illegal activities.
- Retaining of property knowing that the property is derived or realized directly or indirectly from an illegal activity.

ii. Reporting to the MLRO:

The suggestion by the Money Laundering Reporting Officer is not correct and could result in the firm being found liable for breaching the Money Laundering Act.

Notwithstanding the fundamental principle of confidentiality that the firm should observe, illegal dealing by a client as is the case here could fall under the exception to non-disclosure of client information without consulting the client.
This is one of the examples where the auditor is obliged to report such activities to competent authorities.

Under the Prohibition and Prevention of Money Laundering Act 2001 the firm will commit an offence of abetting or conspiring to commit money laundering by not reporting the matter to the Drug Enforcement Agency. Further, trying to conceal evidence that will be required in a money laundering investigation will amount to a crime by the firm.

The firm should therefore:

- Consider its own position with regards to the crime that has come to its attention during the audit.
- If not sure on reporting to the competent authority, the firm should seek legal advice and it will be guided accordingly.
- The suggestion by the MLRO should not be accepted and the firm should follow the legal guidance given in the Act.

b) i. Importance of peer reviews:

Peer reviews can be described as reviews of the audit work that has been carried out by a person within the firm other than the one who performed the audit.
Peer reviews are important in auditing in that they enhance the quality of the work that has been carried out. The audit opinion is arrived at after evaluating the work and

evidence that has been carried out. The risk of the auditor arriving at an inappropriate audit opinion is reduced if working papers are independently reviewed.

Review of the working papers of Kudu Ltd:
The review of the working papers of Kudu Ltd happened before the audit report is signed. This type of review is known as a hot review. The review points made by the peer reviewer can be taken into account before finalization of the audit.

Review of the working papers o Puma Ltd:
The review carried out after the audit report is called a cold review. It has little consequence to the audit report which has been signed.

ii. Audit evidence expected:

Kudu Ltd:

The audit evidence expected to be found in the review of the working papers of Kudu Lt include the following:

- An evaluation of the dealings and the related amounts of Kudu Ltd.'s dealings with Deer Ltd.
- Disclosure in the financial statements of Kudu Ltd.'s dealings with Deer Ltd a related party.

Sable Ltd:

Audit evidence expected to be found:

- Evidence of the review of the report of Real Estates Properties in determining the revaluation amounts.
- Work carried out to determine the independence of Real Estate Properties from Sable Ltd.
- Treatment of the revaluation gains and losses have been carried out in accordance with the relevant standards.

Puma Ltd:
Audit evidence expected to be found:
- Evidence of the review of the lease agreement in order to determine the type of lease that was entered into by Puma Ltd. is it a finance lease or an operating lease.
- The fact that the trucks acquired have been capitalized is indicative that this is a finance lease. There should be evidence that shows that the conditions for a lease to be classified as a finance lease have been met.
- Evidence of checking the computation of the initial amounts to be recognized and that it is in accordance with IFRS 16 *Leases.*

SOLUTION FOUR:

a) **Audit risk:**
Audit risk is the risk that the auditor will give an inappropriate audit opinion after performing the audit. For example when the financial statements are materially misstated and the auditor concludes that they are not and vice versa.

This risk arises mainly from three factors namely:
- The inherent risks that may exist in Medicare Clinic and also inherent risks on specific financial statement assertions.
- Control risk means that the controls put in place by Medicare Clinic fail to prevent and detect material misstatements in the financial statements and
- Detection risk which is the risk that the auditor will be unable to detect material misstatements having performed the audit in accordance with standards.

Business risk:
Business risks are risks that the organization faces and which could prevent it from achieving its objectives. These risks will include operational, compliance and financial risks that face Medicare Clinic.

For example the fact that debt becomes uncollectable is a business risk which will affect the liquidity of Medicare Clinic.

b) **Audit risks and responses:**
- **Advance payments by the second category of clients:**
  These clients deposit a fixed amount of money with the clinic and draw down as they use the service of Medicare Clinic. Revenue for this category of clients should be recognized at the point of the client being attended and invoiced.

  There is a risk at the period end that the amounts received as deposits may be treated as revenue when these amounts should be treated as payables. There is a risk that inventory will be misstated by such unutilized deposits.

  Possible response to risk:
  The response to the risk that advance payments are treated as revenue will include checking and confirming that at the period end all bills raised by the clinic for services provided have been processed and correctly charged against the deposits made. A review of the schedule of advance payments should be made to identify those that have not changed in a long period and discuss with management. Consideration to confirm with a sample of clients in this category will be made by way of third party confirmation.

- The deposits of K300 000 by corporate customers are material to the financial statements when taken together for all the corporate customers. These amounts remain on account and the corporate customers pay for the services received after 30 days. There is a risk that the deposit amounts are wrongly classified as revenue in the period of receipt resulting in a misstatement of revenue. These amounts should be treated as liabilities and revenue should only be recognized when the service is offered and clients are invoiced.

Possible response to risk:
There will be need to confirm the advances made by corporate customers by way of third party confirmation. This can be done by circularizing a sample of such companies.

- There is a risk that receivables will be overstated to the extent of disputed amounts. These are disputed amounts for services extended to unregistered employees/dependants of the corporate customers.

  Possible response to risk:
  Review the age analysis of receivables and enquire from management regarding old unsettled bills. May include such receivables with disputed amounts in the sample of those to be circularized in order to get third party confirmation. Further, ensure that adequate provision for receivables is made in the financial statements.

- There is a risk of inventory being misstated. This is a highly regulated industry and it is possible that some inventory may have expired and so should not be administered to patients and should be disposed of.

  Inventory may be held at a higher value than the realizable value.

  Possible response to risk:
  Review the inventory count instruction with regards identification of expired drugs at the year. Establish the legal requirements with regards such expired drugs and discuss with management on how they propose to deal with such drugs.

  Evaluate the valuation of drugs nearing expiry date and in the subsequent period determine the drugs that will have expired before the date of the audit report and ensure the inventory value at the period end is amended as appropriate.

- There is a risk of Medicare Clinic being sued for professional negligence. This could result in the clinic being penalized if found guilty. The risk is that provisions may be misstated in the financial statements.

  Possible response to risk:
  Enquire from management of any previous litigation against the company. Obtain written representations from management that they are not aware of any litigation against the company for professional negligence. A review of the legal expenses account

will also be made to establish the reasons for any legal fees made in case they could be for out of court settlements to avoid litigation.

c) **Matter one:**

The problem here is that of the valuation of inventory at the period end. The destruction of the inventory was as a result of it having expired and so was not worth the amount at which it was recognized in the financial statements. This inventory should have been written off at the year end.

This is an adjusting event and management will be requested to amend the financial statements if it has not already done so.

It will be necessary to confirm that all expired drugs have been written off otherwise inventory would be misstated as the net realizable value is lower than the cost.

Matter two:

The determination of the amount by the court after the year end confirms what the amount that should have been provided for at the period end is. This is an adjusting event and the provisions should have been adjusted.

An additional provision of K250 000 should be made to the original provision that was made at the period end. There will be need to confirm with management how they have treated this item. If they have not adjusted the provisions figure, the auditors will require that they do this.

Matter three:

The inventory that was stolen existed at the period and was appropriately valued. This is an example of a non-adjusting event. It is necessary to find out from management how they have treated this in the financial statements.

SOLUTION FIVE

a) Need for evaluating non-compliance with laws & regulations:

The objective of the auditors is to form an opinion of the financial statements. ISA 250 *Consideration of laws and regulations in an audit of financial statements* gives guidance to the auditor in this area.

The objective of the auditor is to obtain sufficient appropriate audit evidence that the financial statements are not materially misstated due to non-compliance with laws and regulations.

There are penalties to a company such as Exotic Foods Restaurant not complying with relevant laws and regulations. Non-compliance could impact on provisions in the financial statements in the event that penalties are imposed on Exotic Foods Restaurant.

In the extreme case there could be withdrawal of the operating license if the non-compliance is severe and this could have going concern implications on Exotic Foods Restaurant and impact on the appropriateness of preparing the financial statements on a going concern basis.

Because of the above the auditor should throughout the audit look out for any evidence of non-compliance with laws and regulations by Exotic Foods Restaurant.

Impact of non-compliance on the audit report:

If the auditor establishes that there is non-compliance with laws and regulations by Exotic Foods Restaurant this will have a dual impact on the work of the auditor as follows:

- The auditor shall determine whether he should report the non-compliance to the relevant regulatory authority. In doing so the auditor shall consider his own position with regards to issues of confidentiality.
- The auditor shall consider the impact of non-compliance on the audit report. If he considers that the non-compliance has a material effect on the financial statements he may consider modifying the audit opinion.

b) Accepting appointment as auditors of Exotic Foods Restaurant:

i. Procedures before accepting appointment:

- The firm should consider whether it qualifies to act as auditor of Exotic Foods Restaurant. Legal requirements as well ethical matters shall be considered.
- The firm will need to ensure that it has the resources needed to perform the audit. This includes resources of time, staff and technical expertise to carry out an audit in this sector.

- If the firm does not know the directors it may be necessary to obtain independent references of the directors that are not known.
- The firm will need to communicate with the outgoing auditors of Exotic Foods Restaurant to find out if there are any reasons professional or otherwise why nomination should not be accepted.

ii. Procedures after accepting appointment:

- The firm will need to ensure that the outgoing auditors were properly removed according to the law and regulation.
- Ensure that the firm's own appointment is valid by examining a copy of the resolution made.
- The firm will need to submit a letter of engagement which will stipulate the condition of the relationship with the client.

c) Purpose of analytical procedures:

Analytical procedures are used by auditors at all the three stages of the audit process. The purpose of performing analytical procedures at the three stages is as follows:

Analytical procedures at the planning stage:

At the planning stage analytical procedures are used to gain an understanding of the entity as required by ISA 315(Revised) *Identifying and Assessing the risks of material misstatement through understanding the entity and its environment*.

Analytical procedures at the substantive stage:

Analytical procedures are performed at the substantive stage of the audit with the aim of detecting material misstatements in the figures contained in the financial statements.

In gathering evidence on the figures contained in the Statement of Profit or Loss and the Statement of Financial Position, the auditor can use analytical procedures which are an efficient way of gathering evidence.

Analytical procedures at the review stage:

At the review stage of the audit when the audit is almost coming to an end analytical procedures are used in evaluating whether the financial statements make sense.

The senior members of the audit team who form the opinion use analytical procedures to confirm that the financial statements present the reality of the situation in the company.

Purpose of tests of control:

Tests of control are performed by the auditor in order to test the effectiveness of the internal controls put up by management.

Normally tests of control are performed to cover the whole period under audit. If the auditors test the controls and conclude that the controls are operating effectively, the auditor may place reliance on the effectiveness of the controls and limit the extent of detailed substantive tests.

Purpose of substantive audit procedures:
The purpose of performing substantive tests is to enable the auditor to detect material misstatements that may exist in the financial statements. The auditor is required to perform substantive tests on all material amounts in the financial statements.

Arising from the results of the substantive tests, the auditor will conclude whether or not the financial statements present a true and fair view.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.3: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 12 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE

Zambezia Insurance Company

Zambezia Insurance Company (ZIC) was established in 1996 by Mr. Oliver Wamui and was located in Lusaka. Prior to establishing ZIC, Wamui had worked for the Zambia State Insurance Company (ZSIC) for fifteen years. On his retirement in 1992, he was engaged by ZSIC as an insurance broker. In 1996, Wamui decided to form his own insurance company, known as Zambezia Insurance Company, and employed three people who had been colleagues at ZSIC. Selling insurance is difficult in Zambia and to drum up business, Wamui and his partners essentially wooed individuals and institutions they had known while in employment with ZSIC. While this approach had worked somewhat successfully in the initial period, business began to thin out with the liberalization of the insurance industry in the 2000s. For ZIC, there was the added problem that Wamui and his colleagues were getting older and they did not have the energy levels of the earlier years. Wamui therefore decided to reorganize the management of the company by turning himself and his three colleagues into a Board of Directors and leaving the day to day running of the business to a management team headed by a General Manager. These organizational changes took place in 2010.

Unfortunately, business did not pick up and by 2015 two General Managers had been recruited and fired. It was at this point that Lubasi Nawa was recruited. Lubasi was a holder of a CA - Zambia. What impressed the Board of ZIC about him were not only his educational credentials but his relative youth and desire for success. Lubasi was born in 1980 in Kalabo and was only 35 years old at the time he was recruited as General Manager of ZIC in 2015. But he had had to struggle and work hard all his life. His father was a fisherman and his mother was a housewife. The family was blessed with eight children and Lubasi was the first born. As a fisherman, Nawa senior had struggled to raise his family, and only Lubasi could be sent to school albeit with the assistance of white missionaries. However, Lubasi had proved to be an intelligent and hardworking pupil. His effort, hard word work and perseverance at school paid off and culminated in an award of CA - Zambia in October, 2014.

When he appeared for the job interview at ZIC, Wamui and the other Board members did not mince words with him. They told him point blank that his task was to turn the company around, failure to which his services would be terminated as had happened to his predecessors.

As soon as he took over as General Manager, Lubasi embarked on meeting the challenge he faced head on. Aware of the enormous task of convincing people to take up insurance, he decided that he would first target low and medium income households in the sprawling townships of Lusaka. This segment of the Lusaka population had been largely ignored in the past by traditional insurance companies ostensibly because it was perceived to be too poor to afford insurance. Although Lubasi also realized that these households were generally averse to taking up insurance because of income limitations, he was nevertheless convinced that they could be persuaded to insure some items they valued. Lubasi came up with a unique way of selling insurance to households. ZIC salespeople would physically visit households and interact with various members of household to get a feel of what items were treasured in a home and would then propose to a household an insurance policy that matched the pocket and value. This novel way of selling insurance ensured that insurance was customized and avoided the hassles associated with selling insurance at arm's length.

Another approach used by ZIC was to capitalize on the vacuum created in rural areas by the departure of some large insurance companies who considered rural areas unprofitable.

It also dawned on Lubasi and his management team that one of the reasons ZIC had remained small was because the company had confined itself to Lusaka. Management of ZIC therefore decided to take the company to areas beyond Lusaka and appointed insurance brokers not only in Lusaka but also in all the provincial centres of Zambia. Insurance brokers were urged not to sit in their offices but 'to go out there and catch the uninsured wherever they could be found.' The company was pleasantly surprised when some brokers reported that they had sold insurance to vendors in public markets who, fearing for the safety of their merchandise in view of frequent fires and thefts in public markets, had taken up insurance the way fish takes to water.

Lubasi also noticed that with growing affluence, there was an increase in travel for business and leisure by many Zambians from all walks of life. These travellers needed money from their banks to facilitate their travels. ZIC approached some commercial banks and entered into an alliance with them to sell ZIC travel insurance to those customers who wanted foreign exchange to travel abroad.

By the end of 2017, ZIC had achieved some measure of success over the pre-Lubasi Nawa era. The number of people and institutions that had taken up insurance with the company had doubled and revenue had tripled. To cap it all, the success of ZIC did not go unnoticed to the insurance fraternity and the financial sector. The company received '*The Most Promising Insurance Company'* Award in 2017 at the Lusaka Agricultural and Commercial Show. On its part, the Board of Directors was so satisfied with the performance of the company under the management of Lubasi Nawa that it awarded a bonus to all employees, approved a dividend for the shareholders, and an increase in the sitting allowance for members of the board of directors.

Required:

(a) Compare and contrast the roles played by the Board of Directors and Lubinda Nawa as General Manager in the governance of Zambezi Insurance Company. (8 marks)

(b) What strategies did ZIC employ under Lubasi Nawa in order to meet the expectations of the Board of Directors? (5 Marks)

(c) Draw a diagram of the strategic clock and discuss the strategies which ZIC had employed since its inception. (20 marks)

(d) Explain why the strategies Nawa used worked to turn the company around. (7 marks)

[Total: 40 Marks]

SECTION B

Answer any THREE (3) Questions From This Section.

QUESTION TWO

Mr. Kapila has always wanted to start a manufacturing business in Lusaka to manufacture motor vehicles that are specially suited for the difficult Zambian terrain. Mr. Kapila wants this business venture to become successful as it was going to strongly impact other industrial sectors like transport, agriculture, mining and others that can reduce the poverty levels in the country. In this vein, he has approached you to provide consultancy services to him in the form of sound business advice that shall ensure sustainable success for his business in the face of serious competition from imported vehicles, for example. Thus, advise him regarding the following:

(a) The complete strategic planning process that can lead to the production of a good business strategy, including the appropriate analyses. Use a diagram. (10 marks)

(b) The different business strategies which he could utilize to become competitive in his chosen industry, using a suitable diagram. (6 marks)

(c) How he could choose the suitable business strategy that can help his business to gain a competitive advantage in his industry. (2 marks)

(d) The limiting factors that could affect the competitive advantage for the organization. (2 marks)

[Total: 20 Marks]

QUESTION THREE

Mutume Ltd is a leading tourist Operations Company based in Livingstone and it offers various tourism packages tailored for the foreign tourist visitor to Zambia. Hence its business is very seasonal and depends on the vagaries of nature, the state of the world economy, the tourist facilities available in the country, and especially the fierce competition from Zimbabwean companies located in the nearby town of Victoria Falls just across the border. All in all, the company is in a very risky business and hence it requires expert advice to ensure competitiveness and sustainability.

The company has now approached you to provide the necessary advice regarding their business.

Required:

(a) Using a diagram, describe the links between risk/value drivers and the various risks which they cause in this company. (9 marks)

(b) Explain the risk management process to the company in terms of the various steps. (5 marks)

(c) Given the following data, prepare a suitable risk map for the company and advise it accordingly in terms of risk categorization and mitigation:

Risk Type	Frequency of Occurrence of Risk	Severity of Impact of Risk
Delays	80	20
Bad world economy	75	85
Inadequate facilities	90	100
Lack of tourists	60	100
Competition	15	75
Bad weather	8	95
Security	10	85
Shortages	15	10

(6 marks)

[Total: 20 Marks]

QUESTION FOUR

In 1998, Fingerhut Company had been a thriving mail order retailer with annual revenues of $2 billion. It was making a successful transition to electronic commerce. This venerable catalogue company was rapidly opening Internet Web sites and buying equity stakes in other online retailers. With its expertise in filling and shipping catalogue orders, Fingerhut successfully marketed its order-fulfillment competency on a contract basis to other companies, such as eToys and Wal-Mart. Business analysts were impressed by Fingerhut's diversification strategy. Impressed with the company's performance, Federated Department Stores acquired Fingerhut in 1999 for $1.7 billion. Federated's management confidently predicted that the corporation's overall Internet sales would reach $2 to $3 billion by 2004 with the addition of Fingerhut. But just 2 years after this purchase, Federated found out that things were getting bad and not better as it had earlier predicted. Management found that while Fingerhut had an excellent strategy for the Internet and its catalogue businesses, its implementation of that strategy had been poor. (Adapted from Edwards: Federated's Fingerhut Fiasco, Business Week, 2000).

Required:

(a) Describe the organizational structure which Federated adopted after acquiring Fingerhut. (5 marks)

(b) Describe the most common problems businesses encounter with that type of organizational structure when they implement their strategies. (4 marks)

(c) Using a diagram, describe a technique that helps an organization to align its objectives and measures to its mission and strategy during the strategy implementation process which is commonly utilized. (6 marks)

(d) Provide a seasoned advice to the business community at large regarding how to select a proper organizational structure when implementing strategies to ensure superior organizational performance. (5 marks)

[Total: 20 Marks]

QUESTION FIVE

Mr. Mwikisa Muyumbana, until 31 December of last year worked as Director, Business development in a privately owned group of companies. The Board recently appointed him to the position of Managing Director and CEO of the organization. He has been requested by the board to develop a new corporate strategy and winning strategies that must stand a test of time.

(a) State any four (4) functions of corporate strategy. (8 marks)

(b) Discuss with illustrations three (3) tests that can be used to evaluate the merits of one strategy over another and to gauge how good that strategy is. (12 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.3 – STRATEGIC BUSINESS ANALYSIS

SUGGESTED SOLUTIONS

SOLUTION ONE

Question A

(a) Roles played by the Board of Directors and Lubinda Nawa

a) The Board of Directors is a body of persons who represent the interests of shareholders. Those interests are reflected by Wamui as the founder of the company. As Wamui has also turned himself into a member of the board of directors, these interest have not changed and are in fact illustrated by his instruction to Lubasi Nawa to turn the company around in the light of the previous poor performance.

b) The Board of Directors at Zambezia Insurance Company (ZIC) thus constituted the policy making and governing body of the firm. In this regard, they articulated the general direction of the company given the previous poor performance and hired general managers, including Lubasi Nawa, to adhere and follow this direction. It is also at this level that the strategic direction was presented, discussed, approved or rejected. Thus when the direction of bringing profit to the firm was not being met by the predecessors of Lubasi Nawa, the duty of the board was to terminate their services and hire a new general manager who could desired results.

c) In contrast, a General Manager is the chief executive officer of the company and responsible for the day-to-day running of the firm. He is thus accountable to the Board of Directors by meeting the expectations of the Board and other stakeholders. He is therefore expected to initiate, defend and implement the strategy of the organization. He/she is the chief strategist and guides the Board in the selection, evaluation and implementation of strategy.

(b) Strategies ZIC employed under Lubasi Nawa

d) The expectation of the Board of Directors was for the company to improve its performance. Lubasi Nawa was hired against a background of unsatisfactory performance by his predecessors. His mandate as given to him by the Board of Directors was to turn things around. To bring success to the company, the following strategies were deployed under the stewardship of Lubasi Nawa:

    a. **Market development** strategies by (i) extending to other markets, namely, the targeting of households with customized insurance policies; (ii) the extending of operations beyond Lusaka through the engagement of brokers

b. **Service/Product innovation** strategy by customizing insurance among households

c. **Leadership** strategy by filling up the vacuum left by established large insurance firms that had decided to abandon areas they considered unprofitable

d. **Alliance/Product innovation** strategy by introducing travel insurance to travelers through an alliance with commercial banks

(c) Draw a diagram of the strategic clock and classify the strategies which ZIC had employed since its inception

Type		**Strategy**
High Price- Low perceived value		Cost leadership strategy
Medium price- Low perceived value		Broad differentiation strategy
High price – Medium perceived value		Stuck in the middle strategy

Note: This is a modified strategic clock.

(d) Explain why the strategies Nawa used worked to turn the company around.

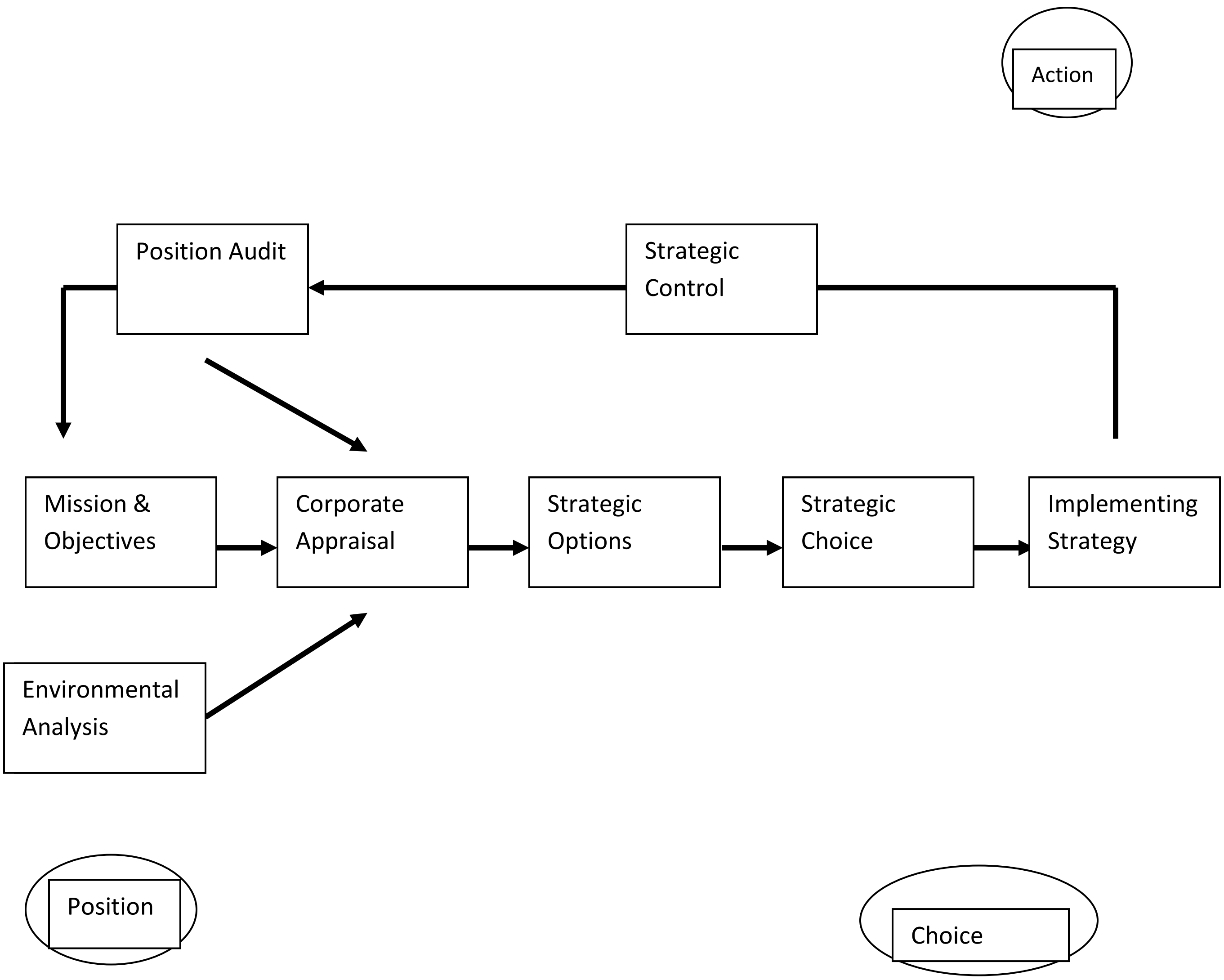
- Focused strategies - for price conscious customers.
- Low-price strategies- offer better value than competitors.
- Focus is in line with market segmentation – designs products/services that meet needs of a particular market.
- Can be used with both cost leadership and differentiation, thus providing the benefits of three strategies.

SOLUTION TWO

a) *The complete strategic planning process that can lead to the production of a good business strategy, including the appropriate techniques and analyses. Use a diagram.*

Answer

Rational Model of the Strategic Planning Process



The Strategic Planning Process is composed of the following components:

Mission: This defines the purpose of the organization, guides strategic decisions and provides a sense of direction. It reflects the values or expectations of stakeholders and answers the question: What business are we in?

Objectives: These are the more specific aims or purposes and are usually quantified. They represent the targets or the things that should be achieved by the organization.

Environmental Analysis: Involves analyzing the internal and external environments in which the business operates to ascertain the opportunities, threats, strengths and weaknesses which represent the strategic factors that are necessary for the strategy to become successful.

Position Audit: This determines the organization’s strategic position in terms of three main groups of influences that have to be considered – the environment, strategic capability (resources and competences or strengths and weaknesses) and expectations of stakeholders, especially those groups that have a less formal relationship with the organization.

Corporate Appraisal: Made up of environmental analysis and position auditing.

Strategic Options: These are the alternative strategies from which the organization can choose the strategies that it may implement.

Strategic Choice: The strategies are chosen from the alternatives to achieve competitive advantage and are based on the understanding of customers and markets.

Strategic Implementation: This involves the putting of the chosen strategy into action by considering major issues that include structuring, enabling and change management.

Strategic Control: This ensures that the organization is achieving what it set out to accomplish, i.e. that the implemented strategy is working as expected. It compares actual performance achieved with the desired results or desired performance and then provides the feedback necessary for management to evaluate results and take corrective action as required.

b) *The different business strategies which he could utilize to become competitive in his chosen industry, using a suitable diagram.*

Answer

Business-level strategy refers to the plan of action that strategic managers adopt to use a company's resources and distinctive competencies to gain a competitive advantage over its rivals in a market or industry.

Choosing a Generic Business-Level Strategy:

Companies pursue a business-level strategy to gain competitive advantage that allows them to outperform rivals and achieve above-average returns.

They can choose from three basic generic competitive approaches: cost leadership, differentiation, and focus and various combinations of the three.

These strategies are called generic because all businesses or industries can pursue them regardless of whether they are manufacturing, service, or not-for-profit enterprises.

Each of the generic strategies results from a company's making consistent choices on product, market, and distinctive competencies – choices that reinforce each other.

In other words, a company must achieve a fit among the three components of business-level strategy.

Cost-Leadership Strategy. A company's goal in pursuing a cost-leadership strategy is to outperform competitors by doing everything it can to produce goods or services at a cost lower than theirs.

Differentiation Strategy. The objective of the generic differentiation strategy is to achieve a competitive advantage by creating a product (good or service) that is perceived by customers to be unique in some important way.

Cost Leadership and Differentiation Strategy. Recently, changes in production techniques – in particular, the development of flexible manufacturing technologies – have made the choice between cost-leadership and differentiation strategies less clear-cut.With technological developments, companies have found it easier to obtain the benefits of both strategies.The reason is that the new flexible technologies allow firms to pursue a differentiation strategy at a low cost; that is, companies can combine these two generic strategies.In this manner, some firms are managing to reap the gains from cost-leadership and differentiation strategies simultaneously.

Focus Strategy. This strategy differs from the other two chiefly because it is directed toward serving the needs of a limited customer group or segment.A focus strategy concentrates on serving a particular market niche, which can be defined geographically, by the type of customer, or by segment of the product line.

Once it has chosen its market segment, a company pursues a focus strategy through either differentiation or a low-cost approach. In essence, a focused company is a specialized differentiator or a cost leader.

The Generic Business Strategies

Competitive Advantage

	Target	Lower Cost	Differentiation
Competitive Scope	Broad Target	Cost Leadership	Differentiation
	Narrow Target	Focus	

c) *How he could choose the suitable business strategy that can help his business to gain a competitive advantage in his industry*.

Answer

Strategic choices are made at both the corporate and business unit levels. At the corporate level, strategy is primarily about scope which is concerned with the overall product/business portfolio, the spread of markets and the relationship between business units and the corporate centre. Stakeholder power and interest influence the direction in which strategy evolves.

d) *The limiting factors that could affect the competitive advantage for this organization.*

Answer

Every organization operates under resource constraints and a limiting factor is an example of such contraints.

A limiting factor or key factor is a factor which at any time or over a period may limit the activity of an entity,often one where there is a shortage or difficulty of supply.

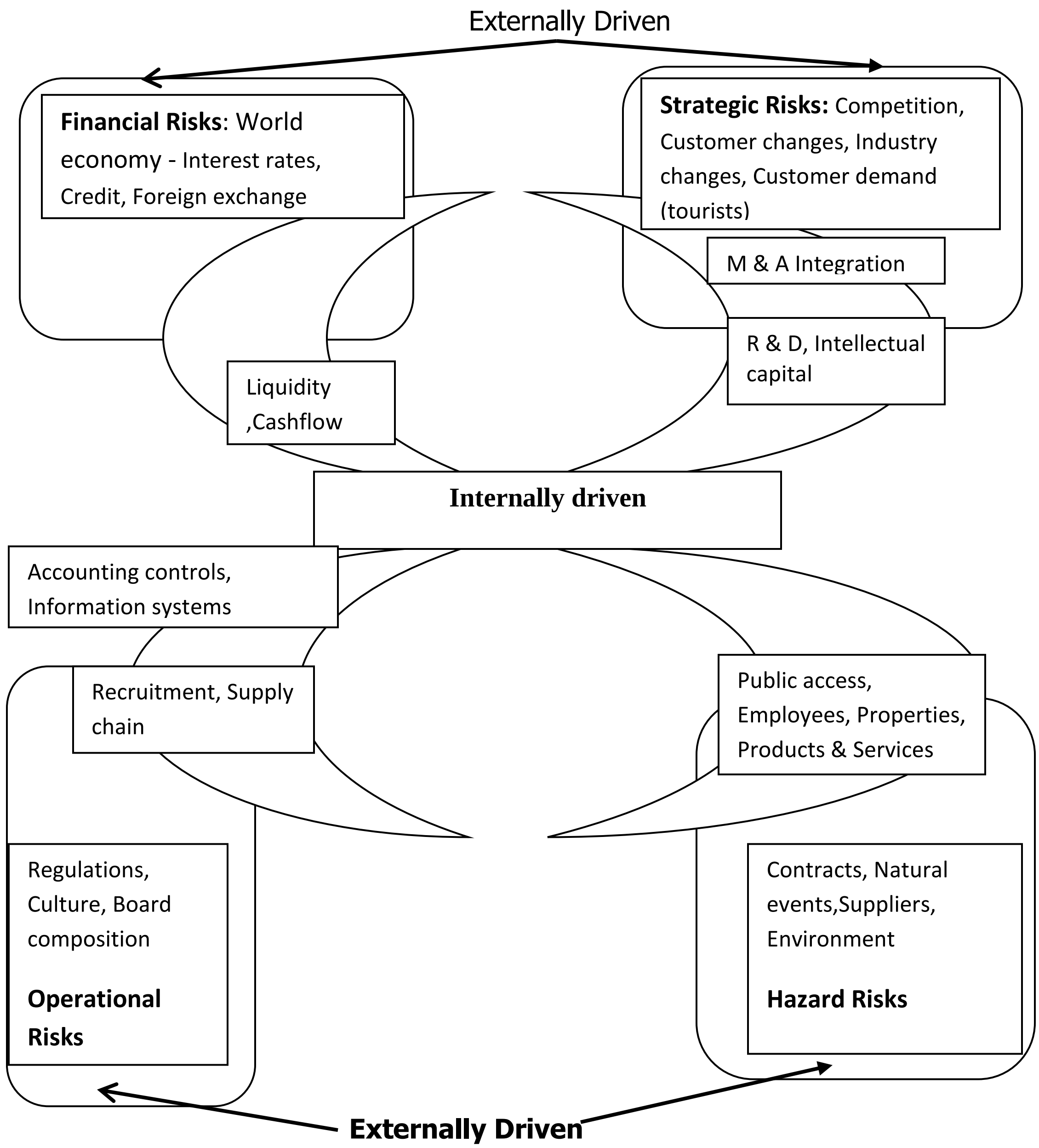
The following are some of the limiting factors that could affect this organization:

a. Production undercapacity or lack of capacity to produce the vehicles due to excessive demand.
b. Shortage of suitably qualified personnel with the requisite technical knowledge in terms of the various functions like procurement, production, sales, accounting, etc.
c. Shortage of financial resources leading to insufficient working capital.
d. Limited domestic market in terms of size.
e. Inadequate research design capability to develop new products and services to meet the changing needs and conditions.

SOLUTION THREE

Answer

a) *Using a risk diagram, describe the links between risk/value drivers and the various risks which they cause for this company.*



Value/Risk Drivers

From the diagram, it can be seen that risks can arise from various sources, which are the risk drivers, which are externally driven like:

a) Finances – financial risks
b) Strategy – strategic risks
c) Operations – operational risks
d) Hazards – hazards risks

There are also internal internally driven sources of risks like:

i) M & A integration, Research and development, Intellectual capital
ii) Liquidity and cash flow
iii) Accounting controls, Information systems, Recruitment, Supply chain
iv) Public access, Employees, Properties, Products and services

b) Explain the risk management process to the company in terms of the various steps.

Step 1: Risk Assessment and Analysis

Risk Identification: Actively identifying risks before they materialize makes it easier to think of methods that can be used to manage them. This is a continuous process so that new risks and changes affecting existing risks may be identified quickly and dealt with appropriately before they can cause unacceptable losses.

Risk analysis: Involves obtaining an idea of the severity of the consequences of the risk materializing and how frequently (or how likely) it is that the risk will materialize.

Risk quantification: The risks that have been identified are then measured or quantified in various ways. Organizations can calculate possible results or losses and add on distributions or confidence limits to ascertain certain key measures like the average or expected result or loss, frequency of losses, chances of losses and the largest predictable loss. Risk mapping can be used to come up with a risk severity/frequency matrix that groups risks into risk families like critical, moderate and low risks.

Step 2: Risk Response and Mitigation

Risk Transfer: Risks can be transferred to other internal departments or externally to suppliers, customers, insurers or even to the state.

Risk Sharing: Risks can be partly held and partly transferred to someone else.

Risk Avoidance: A company may deal with risk by abandoning operations where the risks of loss are considered to be too great or the costs of security are
considered to be too high.

Risk Reduction: Often risks can be controlled or reduced but not avoided altogether. They are reduced to an acceptable level by incurring the costs of risk mitigation like installing protective devices, issuing safety equipment, etc. The level of risk mitigation is a trade-off between cost and the risk's likelihood and impact.

Risk Acceptance/Retention: This is where the organization bears the risk itself. If an unfavorable outcome occurs, it will suffer the full loss. There will always be some unexpected risks or where the risk is considered to be insignificant or the cost of avoiding the risk is considered to be too great, set against the potential loss that could be incurred. Risks accepted
should generally be low frequency, low severity risks.

Step 3: Monitoring, Evaluation and Control

Monitoring, evaluation and review and control of the chosen risk management technique are essential because conditions change – new risks arise, and old ones disappear.

Also, reviewing earlier decisions to use specific methods may identify mistakes made previously.

c) *Given the following data, prepare a suitable risk map for the company and advise it accordingly in terms of risk categorization and mitigation:*

		Severity	
		Low	*High*
Frequency	*Low*	***Accept*** Shortages	***Transfer*** Bad Weather Competition Security
	High	***Reduce or Control*** Delays	***Avoid or Abandon*** Inadequate Facilities Lack of Tourists Bad World Economy

Mitigating and Managing the Risks:

The following methods should be used to mitigate and manage the identified risks:

Shortages – Accept the risk (Risk Acceptance) but keep under view.

Delays – Reduce or Control (Risk Reduction or Risk Control); take some action like enhanced control systems to detect problems or contingency plans to reduce impact.

Bad Weather, Competition and Security – Transfer the Risk (Risk Transfer); insure the risk or implement contingency plans.

Inadequate Facilities, Lack of Tourists and Bad World Economy – Avoid or Abandon; take immediate action like changing major suppliers or abandoning activities completely (Risk Avoidance)

SOLUTION FOUR

a) *Describe the organizational structure which Federated adopted after acquiring Fingerhut.*

Federated used the multi-divisional organizational structure which divides the organization into semi-autonomous divisions that may be differentiated by territory, product or market. Federated was the holding company in that setup and the holding company structure is an extreme form in which the divisions are separate legal entities. Communication between divisions and head office is restricted, formal and related to performance standards. Influence is maintained by headquarters' power to hire and fire the managers who are supposed to run each division.

b) *Describe the most common problems businesses encounter with that type of organizational structure when they implement their strategies*.

Problems of the Multi-Divisional Organizational Structure

1. A division is partly insulated by the holding company from shareholders and cap[ital markets, which ultimately reward performance.
2. Different product-market divisions might function better as independent companies.
3. The divisions are more bureaucratic than they would be as independent corporations, owing to the performance measures imposed by the strategic apex.
4. Headquarters management have a tendency to usurp divisional profits by management changes, cross-subsidies, head office bureaucracies and unfair transfer pricing systems.
5. In some businesses, it is impossible to identify completely independent products or markets for which divisions would be appropriate.
6. Divisionalization is only possible at a fairly senior management level, because there is a limit to how much independence in the division of work can be arranged.
7. It is a halfway house, relying on personal control over performance by senior managers and enforcing cross-subsidisation.
8. Many of the problems of divilisation are those of conglomerate diversification. Each business might be better run independently than with the others. The different businesses might offer different returns for different risks which shareholders might prefer to judge independently.

c) *Using a diagram, describe a technique that you have learnt in this course that helps an organization to align its objectives and measures to its mission and strategy during the strategy implementation process which is commonly utilized. (The balanced scorecard).*

The Balanced Scorecard

This approach emphasizes the need for a broad range of Key Performance Indicators (KPIs) and builds a rational structure that reflects longer term prospects as well as immediate performance. It seeks to translate mission and strategy into objectives and measures, and focuses on four different perspectives:

Financial perspective – To create shareholder value for financial success.

Customer perspective – To create customer value.

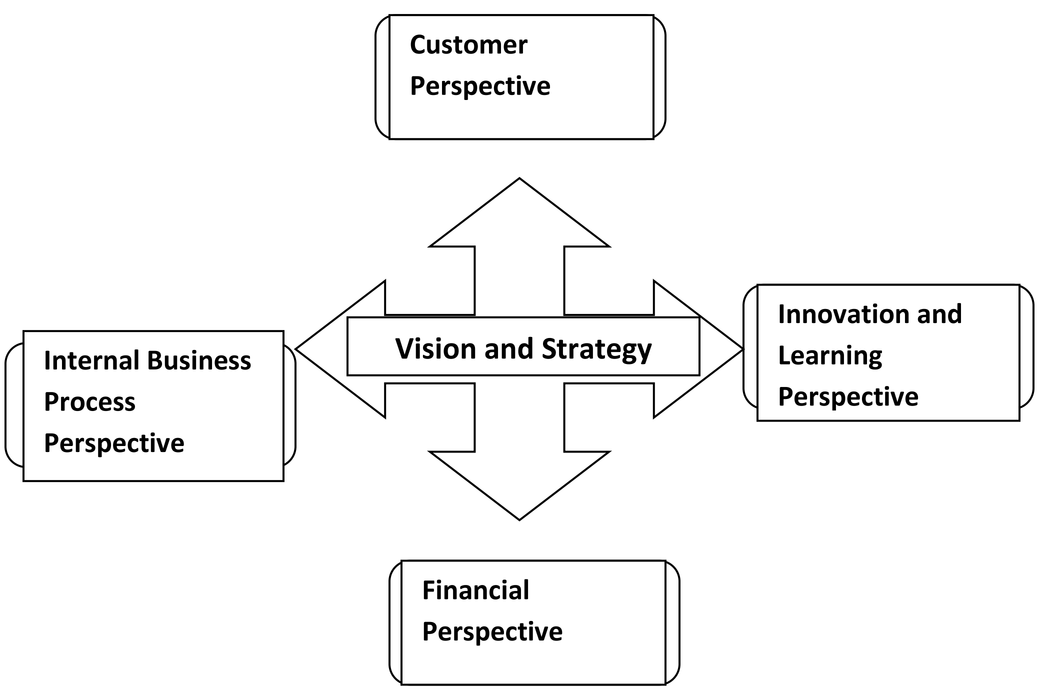
Internal business process perspective – Internal processes and decision making improvements.

Innovation and Learning perspective – Continuing to create value and maintain the company's competitive position.

Performance targets are set once the key areas for improvement have been identified, and the balanced scorecard is the main monthly report.

The scorecard is balanced in the sense that managers are required to think in terms of all four perspectives, to prevent improvements being made in one area at the expense of another.

But the scorecard should be used flexibly since the four perspectives may not be perfect for all organizations. It may be necessary to add further perspectives related to the environment or to employment. The process of deciding what to measure forces a business to clarify its strategy.



d) *Provide a seasoned advice to the business community at large regarding how to select a proper organizational structure when implementing strategies to ensure superior organizational performance*.

There are 9 tests that may be used to assess proposed organizational structures, with the first 4 tests relating to the organization's objectives and the restraints under which it operates while the last 5 relate to matters of design principle.

a. Market advantage. Where processes must be closely coordinated in order to achieve market advantage, they should be in the same structural element.
b. Parenting advantage. The structure should support the parenting role played by the corporate centre.
c. People test. The structure must be suited to the skills and experience of the people that have to function within it.
d. Feasibility test. This test sweeps up all other constraints, such as those imposed by law, stakeholder opinion and resource availability.
e. Specialized cultures. Specialists should be able to collaborate closely.
f. Difficult links. It is highly likely that some inter-departmental links will be subject to friction and strain.
g. Redundant hierarchy. The structure should be as flat as is reasonably attainable.
h. Accountability. Effective control requires clear lines of accountability.
i. Flexibility. The structure must allow for requirements to change in the future, so that unexpected opportunities can be seized, for example.

SOLUTION FIVE

(a) The following are the functions of corporate strategy

1. Building and Managing a high –performing portfolio of business units(strengthening existing business positions, divesting businesses that no longer fit into management's plans).

2. Capturing the synergy among related business Units and turning it into a competitive advantage

3. Synergy leads to creation of opportunities and transfer of skills and Share of Experts or facilities

4. Establishing investment priorities and steering corporate resources into businesses, with the most attractive opportunities.

5. Reviewing/revising/unifying the major strategic approaches and moves proposed by SBU managers.

(b) Illustrations should centre on each of the following tests.

1. The Goodness of Fittest

A good strategy is well matched to the company's situation – both internal and external factors and its own capabilities and aspirations.

2. The competitive Advantage test

A good strategy leads to sustainable competitive advantage. The bigger the competitive edge that a strategy helps builds the more powerful and effective it is.

3. The performance Test

A good strategy boosts company performance. Two (2) kinds of performance improvements are the most telling, firstly in gains in profitability and secondly gains in the company's long-term business strength and competitive position.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL – PUBLIC PRACTICE ROUTE

CA 3.4: ADVANCED TAXATION

THURSDAY 13 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO sections:

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

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

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

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

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

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

8. Present legible and tidy work.

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

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.

1. **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%

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

Motor vehicles for the transport of ten or more persons, including the driver	Aged below 5 years		Aged 5 years and over	
	Customs duty	Excise duty	Customs duty	Excise duty
	K	K	K	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

Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	Aged below 5 years		Aged 5 years and over	
	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	30,905	23,694	11,744	9,004

20.0 tonnes				
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

K2,000

On all motor vehicles aged more than five (5) years from year of manufacture

Customs and Excise on New Motor vehicles

Duty rates on:

1. Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:

Customs Duty:

Percentage of Value for Duty Purposes	30%
Minimum Specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes

Cylinder capacity of 1500 cc and less	20%
Cylinder Capacity of more than 1500 cc	30%

2. Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:

Customs Duty

Percentage of Value for Duty Purposes	15%
Minimum specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	10%

3. Buses/coaches for the transport of more than ten persons

Customs Duty:

Percentage of Value for Duty Purposes	15%
Minimum Specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes

Seating Capacity of 16 persons and less	25%
Seating Capacity of 16 persons and more	0%

4. **Trucks/lorries with gross weight exceeding 20 tonnes**

Customs Duty:

Percentage of Value for Duty Purposes	15%

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A

This question is compulsory and must be attempted.

<u>QUESTION ONE</u>

You should assume that todays' date is 20 December 2018.

Background

Mapalo, Dalitso and Bupe are partners running a VAT registered retail business. They share partnership profits and losses in the ratio of 5:3:2 respectively.

Mapalo, Dalitso and Bupe are entitled to annual partnership salaries of K380,000 and K350,000 and K320,000 respectively. No National Pension Scheme Authority (NAPSA) contributions are currently payable by any one of the partners. They intend to incorporate their business for commercial reasons on 1 April 2019. The following information is available:

Information relating to the Partnership

The partnership's tax adjusted profit, before partnership salaries and capital allowances for the period from 1 January 2019 to 31 March 2019 will be K660,000.

The assets and liabilities held by the partnership as at 31 March 2019 will be as follows:

Assets/Liabilities	**Cost**	**Income Tax Value**	**Market Value**
	K	**K**	**K**
Land	600,000	Not applicable	900,000
Shop buildings	300,000	240,000	500,000
Fixture and fittings	180,000	90,000	110,000
Office equipment	120,000	30,000	70,000
Toyota Dyna Delivery Van	160,000	120,000	90,000
Cash registers	80,000	40,000	40,000
Inventories	270,000	Not applicable	270,000
Receivables	180,000	Not applicable	180,000
Payables	130,000	Not applicable	130,000

The income tax values are the amounts as at 1 January 2019 and the market values are as at 31 March 2019.

Incorporation of the business

(1) A company known as Blessings Limited will be incorporated and will commence trading on 1 April 2019 and will take over all of the above partnership assets and assume all of the liabilities.

(2) The company will have an issued share capital of 1,000,000 ordinary shares of K1 each. Mapalo will hold 50% of the shares, Dalitso will hold 30% of the shares and Bupe will hold the remaining 20%.

(3) Consideration to be received by the partners will be solely in the form of shares and no cash payment will be made by the company to any of the members.

(4) Mapalo, Dalitso and Bupe will be entitled to gross annual directors emoluments of K380,000, K350,000 and K320,000 respectively and will be involved in running the company as full time working directors.

(5) On 30 April 2019, Mapalo will sell 5% of his shareholding to Gift the Finance Director, for K10 per share. Gift will pay for the shares in cash on the date that they will be sold to him.

(6) On 31 December 2019, Mapalo, Dalitso and Bupe will draw dividends of K180,000, K150,000 and K120,000 respectively.

(7) The company's tax adjusted profit for the period from 1 April 2019 to 31 December 2019 will be K1,600,000. This profit figure is before deducting any withdrawals of profits relating to the each individual, NAPSA contributions and capital allowances.

(8) The earnings ceiling for NAPSA contributions purposes for the tax year 2019 is K257,712 per annum where applicable.

(9) You should ignore Value Added Tax.

Future plans

Mapalo, Dalitso and Bupe are planning to purchase three Toyota Prado Land Cruiser motor cars (each with a cylinder capacity of 3000cc) next year which they will use on a personal to holder basis at a cost of K350,000. Estimated private use of each motor car by each individual will be 60%. They wish to finance the purchase of the motor cars either using a finance lease agreement or an operating lease agreement with one of the commercial banks in Zambia.

Required:

(a) Compute the final partnership's taxable profits and show the allocation of profits to each partner. (9 marks)

(b) In relation to the incorporation of Blessings Ltd:

(i) Calculate the values of the shareholdings of Mapalo, Dalitso and Bupe in the new company, Blessings Limited, immediately after incorporation. (6 marks)

(ii) Advise Mapalo of the property transfer tax implications of the sale of part of his shareholding in Blessings Limited to Gift. You should include appropriate calculations showing how the realised value of the shares will be determined and the amount of any property transfer tax arising. (5 marks)

(iii) Compute the final taxable business profit for Blessings Ltd and the company income tax payable by Blessings Ltd for the tax year 2019, together with the withholding tax. (10 marks)

(c) Compute the income tax payable by Mapalo, Dalitso and Bupe in the tax year 2019.

(6 marks)

(d) In relation to Mapalo, Dalitso and Bupe's future plans, advise them of the income tax implications of financing the purchase of the personal to holder motor vehicles using:

(i) Finance lease agreement (2 marks)

(ii) Operating lease agreement (2 marks)

[Total: 40 marks]

SECTION B

Attempt any THREE (3) questions from this section.

QUESTION TWO

For the purposes of this question you should assume that today's date is 4 December 2018 and the earnings ceiling for the purposes of NAPSA contributions should be taken to be K257,712.

MOP Limited is an unquoted Zambian company engaged in manufacturing. The company was set up in 2014 of three entrepreneurs; Mwanza, Olivia and Precious who holds share capital in the proportion of 25%, 45% and 30% respectively. Mwanza and Olivia are both directors and employees of MOP Limited, whereas Precious is neither an employee nor a director of the company. Mwanza and Olivia have always drawn K200,000 and K180,000 respectively as annual directors emoluments and they have always been provided with free residential accommodation in company owned houses. These houses were acquired at a cost of K560,000 each. Additionally Mwanza and Olivia have been provided with personal-to-holder cars. Mwanza's car is a Toyota Prado (3300 cc) which the company acquired at a cost of K130,000 whereas Olivia's car is a Mercedes Benz (3000 cc) which the company acquired at a cost of K160,000.

The company is considering changing the accommodation policy for directors effective 1 January 2019. The directors will now be paid housing allowance of 15% of their current emoluments. This will enable the company to let out the houses on commercial basis at a gross monthly rental of K13,700 each. In addition to the change in accommodation policy, the company will advance K220,000 interest free loan to Precious on 1 January 2019. The loan can either be repaid by Precious or the company can write off the loan as irrecoverable.

The company expects a tax adjusted profit of K1,270,000 for the tax year 2019. This profit figure is before capital allowances, directors' emoluments and any accommodation adjustments, but after all the necessary adjustments have been made. Mwanza and Olivia contribute NAPSA at 5% of their gross taxable emoluments, and MOP Limited also contributes 5% of each director's gross taxable emoluments as employer's NAPSA contributions.

Required:

(a) Advise Mwanza and Olivia of the income tax and NAPSA implications, for both themselves as individuals and for MOP Limited, arising from change in accommodation policy. Your advice should be supported by calculations where appropriate. (6 marks)

(b) Advise Precious of the income tax implications for both herself as an individual and for MOP Limited arising from the provision of interest free loan to her. Your answer must be supported by appropriate calculations. (4 marks)

(c) Assuming the accommodation policy is changed on 1 January 2019:

(i) Advise on the amount of income tax payable by Mwanza and Olivia for the tax year 2019. (5 marks)

(ii) Advise on the amount of income tax payable by MOP Limited for the tax year 2019. (5 marks)

[Total: 20 marks]

QUESTION THREE

Mumena Mining Corporation (MMC) Plc is a Zambian resident company engaged in the mining of copper in North-western province of Zambia. MMC Plc prepared the following sumarised statement of profit or loss for the year ended 31 December 2019:

Mumena Mining Corporation Plc

Statement of profit or loss for the year ended 31 December 2019

	K
Revenue (Note 1)	32,490,000
Cost of sales (Note 2)	(19,494,000)
Gross profit	12,996,000
Operating expenses (Note 3)	(3,898,800)
Other income (Note 4)	200,000
Finance costs (Note 5)	(2,274,300)
Profit before tax	7,022,900
Income tax expense (Note 6)	(2,106,870)
Profit for the period	4,916,030

The following additional information is relevant:

1. The amount shown in the statement of profit or loss is the norm value for the purposes of mineral royalty tax. The average norm price of copper during the year was US$5,500 per metric tonne.

2. Cost of sales includes mineral royalty tax paid by MMC Plc during the year. Other expenses included in cost of sales are depreciation of non-current assets of K2,582,575, impairment of goodwill of K423,000, construction of community hospital of K2,700,000 and construction of roads for the haulage trucks of K1,500,000. The balance consists of revenue expenses which are all allowable for tax purposes.

3. Included in operating expenses are total salaries for three directors of K1,900,000, penalty for late submission of provisional income tax return of K80,000, donation to an amateur sports club of K700,000 and entertaining major suppliers of K200,000. The balance consists of revenue expenses which are all allowable for tax purposes. The three directors are provided with free residential accommodation in company owned houses for which they pay no rent.

4. Other income include bank interest of K100,000 (gross), rental income of K60,000 (gross) and profit on disposal of old plant of K40,000. Withholding tax has already been paid where appropriate.

5. The finance costs represent interest paid on the company's borrowings obtained from the related companies. The interest rate was equivalent to the arm's length borrowing interest rate in Zambia.
6. Income tax expense in the statement of profit or loss represents provisional income tax paid during the tax year 2019.

7. The income tax values of assets at 1 January 2019 were as follows:

	Income Tax Values
	K
Old plant (original cost- K1,200,000)	Nil
Toyota Fortuner cars (Original cost- K1,710,000)	1,026,000
Office Equipment (Original cost- K800,000)	400,000

The Toyota Fortuner cars are used by the three directors on personal-to-holder basis. The cars cost K570,000 each. The cylinder capacity of each car is 2900 cc.

During the year, MMC Plc entered into the following transactions:

	Cost/ (proceeds)
	K
Purchase of new plant	2,000,000
Purchase of haulage trucks	2,100,000
Sale of old plant	(400,000)

All the above assets were acquired within Zambia and paid for in Zambian kwacha.

Required

(a) Compute the amount of the taxable mining profit for the tax year 2019.

(15 marks)

(b) Advise the company of the amount of company income tax payable for the tax year 2019.

(5 marks)

[Total: 20 Marks]

QUESTION FOUR

You are a Tax Senior in a firm offering audit and advisory services. Your supervisor has presented the following information to you concerning one of the firm's clients, ROM Limited a Zambian resident manufacturing company.

ROM Limited owns 30% ordinary shares, and 10% of the Bonds in LTXCorp, a company incorporated overseas. ROM Limited's tax adjusted business profits from its Zambian operations for the year ended 31 December 2019 was K1,700,000. This profit figure does not include any income earned by the company from foreign sources.

LTXCorp intends to open a place of business in Zambia next year. However, discussions are currently ongoing as to what type of establishment should be opened. LTXCorp's directors hold their board meetings overseas and are considering holding key meetings in Zambia for the purposes of making management and commercial decisions that are necessary for the conduct of the company's business, once the place of business in Zambia is opened.

LTXCorp maintains its financial statements in United States dollars. LTXCorp paid total dividends of $72000 and total interest of $75,000 on the 10% bonds for the year ended 31 December 2019. Both of these amounts are net of withholding tax deducted in the overseas country in which it operates. Thirty percent of these dividends paid by LTXCorp were remitted to ROM Ltd; whilst ten percent of the total bond interest paid by LTXCorp was remitted to ROM Ltd. The withholding tax rate on dividends in the foreign country is 20% whilst the withholding tax that on interest is 25%.

The Executive Director of ROM Ltd, John Mwale, owns 5% of the ordinary shares in LTXCorp. In the year 2019 he received a net dividend of $ 1080 from LTXCorp. His annual salary for the year 2019 was K144,000. He pays 5% of his annual salary as NAPSA contributions. John Mwale is provided with a personal to holder motor car with a cylinder capacity of 3000cc. He is also paid an accommodation allowance of K30,000 per annum.

There is no double taxation treaty between Zambia and the country where LTXCorp is based. When computing Zambian income tax, credit is available for any foreign tax paid in the foreign country. You should assume that the Zambian Kwacha per US Dollar (K/ $) exchange rate for the year 2019 was on average K12 per $1.

Required:

(a) Discuss whether the place of business LTXCorp intends to open in Zambia next year will be considered as a permanent establishment. (4 marks)

(b) Advise the directors of LTXCorp of the taxation implications for the company;

(i) if the place of business it intends to open in Zambia is considered as a permanent establishment. (2 marks)

(ii) if they start of holding their meetings in Zambia for the purposes of key decision making relating to the company once the place of business in Zambia is opened.

(2 marks)

(c) Calculate the income tax paid by ROM Limited for the tax year 2019. (6 marks)

(d) Calculate the income tax paid by John Mwale for the tax year 2019.

(6 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a firm of Chartered Accountants. You are dealing with the tax affairs of MM Ltd, a Zambia resident company engaged in farming.

Whilst performing your work, you discovered that the Managing Director has been arranging with suppliers abroad to under declare the value of MM Ltd's tax invoices on imported farming inputs at the border, resulting in a significant underpayment of import duties by the company during the year.

You have further obtained the following information relating to the transactions that took place during the charge year 2019:

(1) MM Ltd paid rent of K16,200 net on 1 October 2019, for accommodation for a new director for the period from 1 October 2019 to December 2019. The tenancy agreement was entered into, between the director and the landlord.

(2) MM Ltd engaged a foreign company ZangZen Ltd to install a new ultra-modern irrigation system. Installation works took fourteen days. ZangZen Ltd issued an invoice on its own behalf as it did not have enough time to appointment a tax agent in Zambia. The invoice issued by the foreign company to MM Ltd was denominated in US dollars and had a value of US$30,000. The exchange rate on the date of the issue of the invoice was K10 per $1.

(3) MM Ltd acquired a tractor under a hire purchase agreement on 1 January 2019. The cash price of the tractor was K300,000 VAT exclusive. MM Ltd was required to pay an initial deposit of K60,0000, followed by six equal monthly instalments of K45,000.

Required:

(a) Explain the difference between tax avoidance and tax evasion and discuss how you should deal with your discovery that MM Ltd has been under declaring the value of invoices on importation of farm inputs with foreign suppliers. (8 marks)

(b) Advise MM Ltd using appropriate supporting computations, of the taxation implications of each of the above transactions (1) to (3) for the year ended 31 December 2019.

(12 marks)

[Total: 20 Marks]

END OF PAPER

CA3.4 ADVANCED TAXATION SUGGESTED SOLUTIONS

SOLUTION ONE

(a) COMPUTATION OF FINAL TAXABLE PROFITS AND ALLOCATION OF PROFITS FOR THE TAX YEAR 2018

	Total	Mapalo	Dalitso	Bupe
	K	K	K	K
Tax adjusted profit	660,000			
Add balancing charge (W)	90,000			
Final taxable profit	750,000			
Salaries	262,500	95,000	87,500	80,000
Share of profits (5:3:2)	487,500	243,750	146,250	97,500
	750,000	338,750	233,750	177,500

WORKINGS

COMPUTATION OF CAPITAL ALLOWNACES

	K	K
Shop building		
ITV b/f	240,000	
Disposal (restricted to original cost)	(300,000)	
Balancing charge	(60,000)	(60,000)
Fixtures and fittings		
ITV b/f	90,000	
Disposal (restricted to original)	(110,000)	
Balancing charge	(20,000)	(20,000)
Office equipment		
ITV b/f	30,000	
Disposal	(70,000)	
	(40,000)	(40,000)
Toyota Dyna Delivery Van		
ITV b/f	120,000	
Disposal	(90,000)	
	30,000	30,000
Cash registers		
ITV b/f	40,000	
Proceeds	(40,000)	
Total	4,000	0
		(90,000)

(b) (i) Value of the shareholdings of the individual shareholders

(1)	Mapalo's shareholding	=	50% x K2,030,000(W)
		=	K1,015,000
(2)	Dalitso's shareholding	=	30% x K2,030,000 (W)
		=	K609,000
(3)	Bupe's shareholding	=	20% x K2,030,000 (W)
		=	K406,000

WORKING

COMPUTATION OF TOTAL PURCHASE CONSIDERATION

	Market Value
	K
Land	900,000
Shop buildings	500,000
Fixture and fittings	110,000
Office equipment	70,000
Toyota Dyna Delivery Van	90,000
Cash registers	40,000
Inventories	270,000
Receivables	180,000
	2,160,000
Payables	(130,000)
	2,030,000

(ii) Mapalo will have a shareholding of 500,000 shares (50% x 1,000,000) shares of K1 each in the company, based on the information given that he will be a 50% shareholder in the company.

When Mapalo sells 5% of his shareholding in the company, the number of shares that he will sell is 25,000 shares (5% x 500,000 shares).

The actual sales proceed of these shares would be:

K10 per share x 25,000 shares = K250,000

Based on the purchase consideration received by Mapalo of K1,015,000 (as computed in (b) (i) above) the open market value of the shares sold is:

5% x K1,015,000 = K50,750.

The nominal value of the shares is:

25,000 shares x K1 = K25,000.

The nominal value is lower than the actual sales proceeds.

The realised value of the shares will therefore be the actual sales proceeds received for the shares of K250,000. The amount of property transfer tax will be:

K250,000 x 5% = K12,500

(iii) BLESSINGS Ltd
COMPUTATION OF FINAL TAXABLE PROFIT AND COMPANY INCOME TAX PAYABLE FOR THE TAX YEAR 2019

	K	K	
Tax adjusted Profits		1,600,000	
Less			
Director's emoluments			
- Mapalo (K380,000 x 9/12)	(285,000)		
- Dalitso (K350,000 x 9/12)	(262,500)		
- Bupe (K320,000 x 9/12)	(240,000)		
-		(787,500)	
Employer's NAPSA Contribution			
- Mapalo (K257,712 x 5%)	12,886		
- Dalitso (K257,712 x 5%)	12,886		
- Bupe (K240,000x 5%)	12,000		
		(37,772)	
Capital allowances (W)		(87,500)	(W)
		687,228	
Company income tax			
(K667,228 × 35%)		240,530	

Withholding Tax Paid

(K180,000 + 150,000+120,000) x 15% = 67,500

BLESSINGS LTD
COMPUTATION OF CAPITAL ALLOWNACES

	K
Shop Building	
Wear and tear allowance	
(K500,000 x 2%)	10,000
Fixtures and fittings	
Wear and tear allowance	
(K110,000 x 25%)	27,500
Office equipment	
Wear and tear allowance	

(K70,000 x 25%)	17,500
Toyota Dyna Delivery Van	
Wear and tear allownace	
(K90,000 x 25%)	22,500
Cash registers	
(K40,000 x 25%)	10,000
	87,500

(c) MAPALO, DALITOS AND BUPE
PERSONAL INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2019

	Mapalo	Dalitso	Bupe
	K	K	K
Business profits (from part (a))	338,750	233,750	177,500
Director's emoluments			
(K380,000/K350,000/K320,000 x 9/12)	285,000	262,500	240,000
	623,750	496,250	417,500
Income Tax			
On First K74,400	9,960	9,960	9,960
On excess			
K549,350/K421,850/K343100 x 37.5%	206,006	158,194	128,663
	215,966	168,154	138,623

(d) Finance lease

(1) Finance lease interest will be an allowable expense when computing the taxable business profits of the company.
(2) Capital allowances on the cost of the cars will be claimable at 20%.

Operating lease

(1) The operating lease rentals will be allowed when computing the taxable business profits of the company.

(2) No capital allowances will be claimable by the company on the leased equipment.

SOLUTION TWO

(a) Mwanza and Olivia

The following are the tax implications for Mwanza and Olivia:

(i) The housing allowance will be taxed on each individual under the Pay as You Earn system. The housing allowance will be K30,000 (K200,000 x 15%) and K27,000 (K180,000 x 15%) for Mwanza and Olivia respectively.

(ii) Mwanza and Olivia will be required to contribute NAPSA on the housing allowance, as their current earnings are below the earnings ceiling, at the rate of 5% i.e K1,500 (K30,000 x 5%) and K1,350 (K27,000 x 5%) for Mwanza and Olivia.

The following are the tax implications for MOP Limited

(i) The housing allowance of K57,000 (K380,000 x 15%) will be allowed when computing the taxable business profit.

(ii) There will be no free accommodation benefit to be disallowed on the company when computing the taxable business profit.

(iii) The company will be required to contribute an additional employer's NAPSA on behalf of Mwanza and Olivia on the housing allowance as the current earnings of the directors are below the earnings ceiling. i.e K57,000 x 5% = K2,850

(iv) The company will be required to pay withholding tax at a rate of 10% on rental income which will be the final tax. i.e K13,700 x 10% x 2 = K2,740.

(b) The following are the tax implications of providing an interest free loan to Precious.

(i) MOP Limited will be deemed to have made a loan to an effective shareholder as Precious holds more than 5% of the share capital of MOP Limited

(ii) The company will be required to pay income tax at a rate of 37.5% of the grossed up equivalent amount of the loan. i.e K220,000 x 37.5/62.5 = K132,000. This tax must be paid not later than 14th day of the following month which is 14 February 2019.

(iii) If the loan is repaid by Precious, the tax paid by the company on the loan is refunded to the company if it makes a repayment claim.

(iv) If the loan or part of the loan is written off by the company, the amount of the loan written off will be treated as part of the taxable income of Precious.

(c) Income tax payable

(i) Mwanza and Olivia

Income tax payable for the tax year 2019

	Mwanza	Olivia
	K	K
Salary	200,000	180,000
Housing allowance @15% of basic	30,000	27,000
Taxable income	230,000	207,000
Computation		
First K74,400	9,960	9,960
Balance K155,600/K132,600 @37.5%	58,350	49,725
Income tax payable	68,310	59,685

(ii) MOP Limited

Income tax payable for the tax year 2019

	K	K
Business profit		1,270,000
Less		
Directors emoluments (K230,000 + K207,000)	437,000	
Employer's NAPSA (K437,000 x 5%)	21,850	
Capital allowances:		
Toyota prado (K130,000 x 20%)	26,000	
Mecedece Benz (K160,000 x 20%)	32,000	
		(516,850)
Taxable profits		753,150
Income tax @35% (K753,150 x 35%)		263,603

SOLUTION THREE

(a) Mumena Mining Corporation Plc

Taxable mining profit for the tax year 2019

	K	K
Profit before tax		7,022,900
Add:		
Mineral royalty tax (K32,490,000 x 6.5%)	2,111,850	
Depreciation	2,582,575	
Impairment of goodwill	423,000	
Construction of community hospital	2,700,000	
Construction of Roads	1,500,000	
Penalty for late submission of returns	80,000	
Entertaining major suppliers	200,000	
Free Accommodation benefit		
(1,900,000 x 30%)	570,000	
Personal-to-holder cars (K40,000 x 3)	120,000	
		10,287,425
		17,310,325
Less:		
Bank interest	100,000	
Rental income	60,000	
Profit on sale of plant	40,000	
Capital allowances (1)	2,217,000	
		(2,417,000)
Taxable mining profit		14,893,325

Workings

	K
Capital allowances	K
Old plant – Balancing charge (0 – K400,000	(400,000)
Toyota Fortuner cars (K1,710,000 x 20%)	342,000
Office equipment (K800,000 x 25%)	200,000
New plant (K2,000,000 x 25%)	500,000
Haulage trucks (K2,100,000 x 25%)	525,000
Community hospital (K2,700,000 x 25%)	675,000
Roads (K1,500,000 x 25%)	375,000
Total capital allowances	2,217,000

(b) Mumena Mining Corporation Plc

Income tax payable for the tax year 2019

	K
Mining profit	14,893,325
Add:	
Bank interest	100,000
Total taxable income	14,993,325

Computation

Mining profits: K14,893,325 X 30%	4,467,998
Non-mining income: K100,000 x 35%	35,000
Income tax liability	4,502,998
Less:	
Provisional income tax	(2,106,870)
WHT- Bank interest (K100,000 x 15%)	(15,000)
Income tax payable	2,381,128

SOLUTION FOUR

(a) The term permanent establishment is generally considered to mean a fixed place of business, through which the business of an enterprise is wholly or partly carried on, and includes a place of management, a branch, an office, a factory, a workshop, and a mine , an oil or gas well, a quarry or any other place of extraction of natural resources.

A building site or construction or installation project constitutes a permanent establishment only if it lasts more than twelve months for the purpose of the contractor's enterprise.

The place of business LTXCorp intends to open will clearly be a fixed place of business, through which the business of the company will be carried and will therefore be considered a permanent establishment if it lasts for more than twelve months.

(b) (i) LTXCorp is a non resident company incorporated overseas. If the place of business it intends to open in Zambia, qualifies as a permanent establishment, it will be liable to income tax on any income that it derives from Zambian sources through this place of business.

(ii) Companies that are incorporated overseas are only treated as being resident in Zambia if their place of effective management is in Zambia. The place of effective management is regarded as being in Zambia if key management and commercial decisions that are necessary for the conduct of the business are in substance made in Zambia.

If the board of LTXCorp start holding key meetings in Zambia for the purposes of making management and commercial decisions that are necessary for the conduct of the company's business, then LTXCorp will be regarded as being resident in Zambia and will be liable to Zambian income tax on its worldwide income subject to any double taxation relief that may be available.

c) ROM Ltd

Company Income Tax computation for the tax year 2019.

	K
Business Profits	1,700,000
Foreign Dividends (W1)	324,000
Foreign interest income	
(10% x $75,000) x 100/ 25 x 12	120,000
Total taxable income	2,144,000
Company Income tax	
35% x K2,144,000	750,400

Double Taxation Relief on:	
- Dividend from LTX (W1)	(64,800)
- Interest income (W2)	(30,000)
Company income tax payable	655,600

WORKINGS

1) Double taxation relief on the dividend from LTXCorp is the lower of:
   - Zambian income tax on the dividend
     =$72,000*0.3=$21,600 *100/80=$27,000 *12=K324,000.
     =35% * K324,000= K113,400.
   - Foreign withholding tax paid= $21,600*20/80=$5400 *K12=K64,800

2) Double taxation relief on the Interest from LTXCorp is the lower of:

   Zambian income tax on the Interest
   K120,000 x 35% = K42,000

   - Foreign withholding tax paid=

     K120,000 x 25% = K30,000

(d) John Mwale
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K
Annual Salary	144,000
Accommodation allowance	30,000
	174,000
Dividend from LTXCorp (W2)	16,200
	190,200
Income Tax	
On the first K74400	9960
On the balance (K190,200-K74400) * 37.5%	43,425
	53,385
Double taxation relief	
Dividend from LTXCorp(W2)	(3,240)
Income tax payable	50,145

WORKINGS

2) Double taxation relief on dividend from LTX is the lower of:

a) Zambian income tax attributed to the foreign dividend
   $1080*100/80= $1,350 *12 =K16,200.
   K16200/190,200 * K53,385= K4,547.

b) Foreign withholding tax paid
   K16,200* 20%= K3,240.

SOLUTION FIVE

(a) Tax avoidance involves a tax payer taking advantage of loopholes or weaknesses in tax legislation to reduce their tax liabilities. It is not illegal however government enacts anti-avoidance tax legislation to discourage its practice.

Tax evasion on the other hand involves the tax payer deliberately breaching tax regulations to reduce their tax liabilities. It is an illegal and punishable offence.

A professional accountant is expected to demonstrate the highest level of integrity in his work and in all his dealings. Integrity means being straightforward and honest in all professional and business relationships. The principle of integrity also imposes an obligation on the practitioner not to mislead or deceive and truthfulness.

In providing tax services to the company, the practitioner must not knowingly be associated with reports, returns, communications or other information where your firm believes that the information contains a materially false or misleading statement or calculation and contains statements or information furnished recklessly.

The action by the Managing director of deliberately arranging with suppliers abroad to under declare the value of MM Ltd's tax invoices on imported farming inputs at the border amounts to tax fraud which is tax evasion.

You should report the matter to your supervisor. Your firm should take careful thought to its own position and seek legal advice on the matter. Your firm will also have a duty to report the offence to the proper authorities immediately, which will override the duty of confidentiality your firm owes MM Ltd in relation to this matter.

(b) **Rent**

(1) MM Plc will be required to gross up the rental amount and add it to the emoluments of the new director for the month of October 2019. An amount of K18,000 [K16,200/(1 – 0.10)] will be added to the emolument of the new director and taxed under PAYE.

(2) The grossed up rentals paid by MM Ltd on behalf of the director will be allowed as an expense for income tax purposes.

Irrigation system installation costs

(1) Reverse VAT will apply to this transaction because the installation service provided by the foreign company, ZangZen Ltd, qualifies to be classified as an imported service and Zangzen Ltd did not appoint an agent to act on its behalf for VAT purposes.

(2) MM Ltd will have to charge itself reverse VAT of K48,000 (K300,000 x 16%). This will be included as part of MM Ltd output VAT.

(3) The VAT will form part of the cost of the installation as it is not claimable as input VAT.

(4) MM Ltd will recognize total capital expenditure of K348,000. This is made up of cost net of VAT of K300,000 ($30,000 x K10/$1) and VAT of K48,000 (K300,000 x 16%).
MM Ltd will claim capital allowance of K348,000 (K348,000 x 100%).

(5) Further, MM Ltd will have to deduct withholding tax of K60,000 (K300,000 x 20%) and remit it to the Zambia Revenue Authority.

Purchase of Tractor

(1) Interest will be allowable in computing taxable profits. The amount of the allowable interest will be:
[K60,000 + (K45,000 x6)] – K300,000 = K30,000

(2) Capital allowances at the rate of 100% on the VAT exclusive cost will be allowable These will amount to;
K300,000 x 100% = K300,000

(3) Input VAT will be recoverable on the cost of the tractor. The recoverable input VAT will be:

K300,000 x 16%

K48,000

(4) The capital repayment component of the instalments will not be allowable when computing taxable profits

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 11 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).
5. **Cell Phones** are **NOT** allowed in the Examination Room.
6. The marks shown against the requirement(s) for each question should be taken as an indication of the expected length and depth of the answer.
7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. Formulae, present value, annuity and normal distribution tables are attached at the end of the question 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

BAT Ltd is a private limited company. It was founded in 2009 by three former electricians (Banda, Aboyi and Tembo) because they liked working together and they thought that they could make a living by making good-quality, inexpensive, electrical appliances. Banda, Aboyi and Tembo each invested K50,000 as the share capital of BAT in 2009. There have been no changes to share capital since then.

BAT manufactures small electrical appliances, such as kettles, shavers, toasters, etc. These are sold to wholesalers, who eventually retail them for around K150 each. BAT currently employs 30 people and has a turnover of K150 million. The business normally makes a post-tax profit of between K300,000 and K400,000 and distributes 40 % to the original founders.

BAT Ltd had the following assets as at 30 June, 2017

	K'm
Freehold Property	400
Plant and machinery	200
Motor vehicles	25
Inventories and receivables	300

BAT Ltd had no long-term debt at the year end. However,it did have an overdraft of K160,000. It had no creditors at the year end. This was due to its policy of paying every bill as soon as it was received. Banda, Aboyi and Tembo were reluctant to employ debt in their financing as they felt it was likely to compromise their independence.

Product research and development was managed until 2016 by Mr Banda, one of the founders. In that year he retired from full-time work with BAT Ltd but continued to work part-time for 8 days in a month. Mr Banda is still a shareholder with an equal amount of shares as the other two founders.

Mr Banda's replacement was Linda Nsamwa, a graduate electronics engineer, who had previously worked for the company during industrial breaks. Since her appointment, she had devoted most of the time of her department on developing a new product. She has now finished this and the product has performed well in initial trials.

Product - Razor Wizard (RW)

RW is a remote control device that can operate remotely controlled appliances, e.g. television sets, videos, electrical sliding gates, etc. The RW was made in the development department and the variable cost of making it was K100. The component which is unique to the RW is a computer chip designed by the engineer. The chip has been patented and its ownership is in the hands of BAT Ltd.

Market prospects

BAT Ltd does not have a marketing department and so it commissioned a leading firm of consultants called Diloittee Askens & Cells (DAC) to study the market prospects for the RW in Zambia and the SADC region. The results are very encouraging. DAC believes that the RW would sell at least a million units in the first year in Zambia and the SADC region. They believe it would retail for K400. Sales would remain at this level for four years and then fall to 300,000 units a year for the foreseeable future. DAC also suggests that BAT Ltd should seek world-wide patent production for the RW as it will be attractive beyond SADC countries.

The consultants charged K600,000 for their report which is double the amount BAT Ltd would normally spend on marketing in a year. The consultants have offered to study the world market for the product for K150,000, or they would study individual countries at K25,000 each.

BAT Ltd has a strong presence in the Zambian domestic shavers market. The company has three manufacturing plants situated in Ndola, Kitwe and Livingstone producing over 5 million shavers annually. BAT Ltd has a good distribution network of wholesale dealers and retailers across the country. The company also exports shavers to the SADC region.

Return on capital employed, increase in sales revenue, standard costing, etc. are used for performance measurement. The company performed very well in the past. However, sales have been declining over the last two years. Management cannot identify the reason for the decrease in sales.

Mr Aboyi, one of the directors of BAT Ltd, has pointed out that although modern performance measurement models such as the balanced scorecard and building blocks models have emerged over the last few years, the company has not changed its performance evaluation system. He suggests that non-financial performance measures should also be considered. The management of BAT Ltd is concerned about the impact of using non-financial performance indicators on BAT Ltd.

BAT Ltd senior management is also of the view that it is time they classified their portfolio of electrical appliances so that they are able to assess what products are growing, dying, etc. They just have a faint idea of a model called the Boston Consulting Group (BCG) matrix which may address their classification concerns.

Peter Haambe has been appointed as the new management accountant at BAT Ltd. He has to prepare working papers on two decisions facing the BAT management Board at their forthcoming meeting and the following options are under consideration;

Option A

BAT Ltd has been approached by Muyombe Ltd a company based in Muchinga Province to deliver electrical products on a one-off basis. The accounting costs are as follows:

	K '000
Material X	44
Material Y	88
Labour- 26	66
Overheads	99
Quality control	33
	330

The following management information is available:

- Material X is in inventory and is held at cost price. There is no other use for X and it cannot be sold either. It will cost BAT Ltd K18,000 to dispose it off.
- Material Y is in constant use and the accounting cost reflects the current market cost.
- Labour costs relate to workers that will be transferred from another production line. The cost to continue with operations on this production line will be K82,000 as less skilled workers will have to be used.
- It is company policy to charge overheads at 150% of labour costs.
- Quality control costs are charged at a flat rate of 150% of the labour cost. The quality control will be performed by the relevant staff members as part of their normal duties.
- The production of the ordered product will require the rental of a special machine at a net cost of K43,000.
- The accounting cost of K330,000 is in line with a price indicated by Muyombe Ltd as being acceptable. Peter is, however, aware that a competitor (his previous employer) will be able to quote a price of K300,000 if approached.
- The normal mark-up of 20% on cost has not yet been applied.

Option B

BAT Ltd has budgeted K7 million for capital expenditure to ensure continued growth. A final choice has to be made between three mutually exclusive projects, M, N and O. BAT uses the payback period method to select investments because the Net Present Value (NPV) and Internal Rate of Return (IRR) methods are considered to be too complex for the founders to understand. The following information relate to the three projects:

Net cash flows (K'000)								
Project years	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Project M	(7,000)	2,000	2,200	2,080	2,440	2,760	3,200	3,600
Project N	(7,000)	800	2,000	4,200	3,500	3,200		
Project O	(7,000)	4,000	3,000	4,800	800			

Other information

- Each project will have a useful life equal to that of the project, with no scrap value at each end thereof.
- Depreciation will be calculated at 20% per annum straight line.
- BAT Ltd pays tax at the rate of 25% in arrears.
- BAT Ltd has a cost of capital of 20%.

A co-founder, Mr Tembo, recently read about Activity-Based Budgeting (ABB) and Zero-Based Budgeting ZBB) and asks your advice as to the suitability of these budgeting methods in BAT Ltd. BAT Ltd intends to go into the business of creating and selling business software packages and providing a consultancy service to companies wishing to develop specialised software for their own use as part of the diversification strategy into business software application opportunities. Currently the company uses a system of rolling budgets prepared on an incremental basis.

Required:

(a) Perform a SWOT analysis for BAT Ltd (7 marks)

(b) (i) Discuss the advantages of using non-financial indicators thereby addressing Mr Aboyi's suggestion. (4 marks)

(ii) Discuss the impact of using non-financial performance indicators. (3 marks)

(iii) Explain the BCG matrix and discuss TWO limitations of the Boston Consulting Group matrix as a strategic planning tool. (4 marks)

(c) Peter Haambe, the new Management Accountant has asked for your help in preparing the Board working papers.

In respect of Option A:

(i) Calculate the relevant cost of the order. Explain why you are including or excluding costs in the computation. (5 marks)

(ii) Explain fully whether BAT Ltd should proceed with the order and explain the qualitative aspects to be considered. (4 marks)

In respect of Option B:

(iii) Calculate the payback period for each project and advise BAT Ltd which project should be selected. (4 marks)

(iv) Calculate the net present value (NPV) of Project O. (5 marks)

(d) Explain ABB and ZBB, outlining the advantages of both when compared with incremental budgeting. Do you think either a zero-based budgeting or an activity-based budgeting system would be appropriate for this kind of organisation? Give a reason for your answer. (4 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

Lusangazi Breweries Ltd (LB) recently appointed a managing director (MD), Stella Miti, in an effort to improve the performance of the company.

After analysing the company the MD and the senior management decided to develop a new strategic plan for LB Ltd. The new plan involves far reaching changes to the overall direction and strategies of the company including how it is managed, changes to operating systems and procedures. Examples of such changes include tighter cost controls, integrated communication channels, a more decentralised structure and adaptive management.

Required

(a) Discuss the likely reasons why the planned changes may be resisted. (6 marks)

(b) Discuss how this possible resistance to the introduced changes could be reduced. (8 marks)

(c) Explain the aims of a post completion audit. (6 marks)

[Total : 20 Marks]

QUESTION THREE

Refined Oils Products (ROP) is an established chemical company extracting flavours and oils from plant materials and supplying them to the flavours and fragrances industries. The shareholders include institutional investors (20%), employees and pensioners of the company (20%) and the descendants of the family (30%) who founded the business approximately 60 years ago.

The remainder of the shares are in public ownership. The company is reasonably successful though recently, there has been pressure on margins and its future is not guaranteed.

The majority of the Board of Directors are members of the founding family who have always taken an active part in the management of the business.

The company recently relocated to an area which is in the economical zone. The development of the area has been at a fast rate. A residential area has developed around the factory. Although many of the workers in the factory live locally, some of the housing is quite expensive and has attracted affluent residents from the local city.

The chemical engineers at ROP have recently developed, and patented, a new process which would allow ROP to extract onion oil and garlic oil at far better yields than those obtained by existing processes. The market for these oils is very profitable and presents a significant opportunity for ROP to gain a real competitive advantage in its industry.
Unfortunately, as with all extraction processes, there will be some leakage and, although perfectly safe and compliant with all safety legislation, the smell of the oils offends some of the more affluent residents who have complained to local government officers.

There are very few other industries in the area and ROP is a large contributor to the local economy. One of the trade union representatives working in ROP is also an elected council member serving in the local government.

Required:
As management accountant you have been asked to:

(a) Advise the Board of Directors on the advantages to ROP of conducting a stakeholder analysis in the context of the proposed investment decision; (5 marks)

(b) Analyse the principal stakeholders in ROP in the context of the proposed investment in the new process. (15 marks)

[Total 20 marks]

QUESTION FOUR

Chipata Bicycle Ltd manufactures bicycles for sale to individuals and organisations. Several other bicycle manufacturers operate within the industry, which is highly competitive: there is a trade association which collects a wide range of information.

Chipata Bicycle Ltd has two manufacturing plants and several sales outlets in the country in which it operates. Information for the company's executive information system (EIS) is obtained both from internal sources such as the production plants, and also external sources such as customers. Internally-generated information is sent to head office over a wide area network.

Due to the overall escalating cost of the company's EIS, the board has decided to collect only internally-produced information. This decision has been taken against the advice of the chief information officer.

Required:

(a) Suggest and explain reasons why the company's EIS is becoming expensive to operate. (6 marks)

(b) Evaluate the decision of the board to concentrate on internally-produced information. Clearly describe the information sources that will be lost and explain the effects on the company's information systems and its products. (14 marks)

[Total 20 marks]

QUESTION FIVE

Pindo Electronics Limited (PEL) manufactures and sells energy saving bulbs. The bulbs are sold both locally and abroad. The company is currently researching on water powered bulbs. This concept of using water has attracted a great deal of interest from the environmental lobby groups. The government is hopeful that this type of technology will lead to efficient use of energy.

The research and development department director has mentioned the need to open a research facility abroad, which would work in partnership with the facility in the home country while capitalizing on the benefits that a foreign base could offer. If this venture were successful, PEL would open a manufacturing facility next to the proposed overseas R&D base.

However, at its recent meeting the Board of Directors noted that different countries offer different potential advantages and disadvantages. The Finance Directors was tasked to consider and explain what factors should be determined so that alternatives could be evaluated before a final decision is made. The board should be able to measure how well potential countries perform in respect of each factor.

PEL uses standard costing system. The Managing Director has proposed the introduction of Total Quality Management as she feels that quality is likely to be a large factor in winning business due to the expected stiff competition that bulbs will face. She is aware that introducing such techniques would require changes to the existing accounting systems and culture at PEL, and wants the finance director to advise on what changes would be required. The current accounting systems may not provide all the information necessary to support TQM. A collaborative approach to management of both employees and other stakeholders is required in TQM.

Currently the procurement department continually monitors prices charged by alternative suppliers and orders are placed with suppliers offering the lowest prices, subject to minimum quality requirements.

Required:

(a) Using 'PESTLE ' or any other suitable model, discuss **four** factors that should be present in the chosen country for PEL to invest, and for each factor suggest one key performance indicator that could be used to measure it. (12 marks)

(b) Discuss the impact of introducing total quality management on the accounting systems at PEL. (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

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

Discount rate (r)

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA 3.5 – ADVANCED MANAGEMENT ACCOUNTING SOLUTIONS

SOLUTION ONE

(a)

A SWOT analysis is given below.

Strengths

(i) Good working relationships amongst founder managers.

(ii) Good asset backing for the firm. It has no debts other than a small bank overdraft.

(iii) Good replacement for Mr Banda.

(iv) Major product innovation (the RW) with good market prospects; the firm owns the patent

(v) The existing business is profitable (14% margin after tax).

Weaknesses

(i) Linda Nsamwa(graduate engineer) does not have stake in the business, and so might leave: the firm is dependent on her.

(ii) The firm has a conservative attitude to debt. Normally this might be considered desirable, but the firm needs new capital to inject into new products.

(iii) The firm has no marketing department. How will it cope with selling one million units for K400 each? This will massively increase turnover (from K2.5m to K400m). New staff will be needed. The firm spends hardly anything on marketing. It will be a whole new discipline.

(iv) The RW is a high tech product, very different from the existing range. Can it maintain its advantage?

(v) The firm has no international experience, yet it is suggested that there is a world market for the product.

(vii) The existing small business structure may not be appropriate for future large scale business activities.

Opportunities

(i) Market leadership in this major new product.

(ii) International exposure.

(iii) Commercial relationships with existing consumer electronics manufacturers.

(iv) Opportunities to license production and/or live off the patent income. The firm would become a technological innovator, selling ideas rather than products.

Threats

(i) Uncertainty as to the value of the patent.

(ii) The new engineer might make demands that founders are not prepared to accept.

(iii) Other firms may start investing large sums of money in similar products, so any competitive gain may be short lived.

*Any other appropriate and suitable answers should be awarded

(a)

Mr Aboyi is right to a certain extent. Measuring performance in monetary terms will motivate the managers of BAT Ltd to focus excessively on cost and ignore other important measures. What's more, every corporate activity of BAT Ltd cannot be - in terms of money. There are certain aspects such as quality, delivery, reliability, after sales service and customer satisfaction which become essential for the performance measurement of BAT Ltd. BAT Ltd needs both financial performance indicators and non-financial performance indicators as they are equally important for the company.

Non-financial performance indicators play an important role in evaluating the performance of BAT Ltd. Non-financial performance indicators include both quantitative and qualitative measures.

(i) Advantages of non-financial indicators

- **They focus on long-term organizational strategies**

BAT Ltd should focus on long-term organisational strategies. It should focus mainly on performance indicators such as customer satisfaction, quality of service and after sales service to create a brand value. These may cost in the short term but will ensure success in the long term.

- **They provide more detailed analysis**

BAT Ltd's sales are currently of around five million. However, profit alone will not give a clear picture of the performance of the organisation. The increase in profit may be due to an increase in inflation. Therefore additional information such as the number of units sold and the increase in customer retention rate will facilitate the analysis of the increase in profit during the year. Therefore the qualitative information complements the quantitative information and allows a more detailed analysis.

- **They improve competitiveness**

Non-financial performance indicators will help BAT Ltd to identify the company's weak areas and improve on them so that the company can survive and perform better in the competitive world. If a competitor introduces a new shaver into the market, the company will have to respond through improving the existing shaver models. In this way, the company may perform well in the market and become the market leader.

- **They consider all aspects of the organisational strategy**

Other aspects regarding the quality of the product or service which cannot be expressed in the monetary terms should be considered by the company. The product quality is what attracts customers to the product so it should be considered.

- **They are better indicators of future financial performance**

Non-financial performance indicators of the company will give an idea of the future performance of the company. If BAT Ltd is able to satisfy its customers with the services provided, the customers may become loyal to the company and the company may get more business from the existing customers.

- **Focus of managers shifted from short-term financial performance indicators to qualitative aspects**

If the company gives importance to financial measures, it will give importance to short-term profitability as opposed to long-term profitability. However, if the company also gives importance to the non-financial measures alongside the financial measures, it will consider qualitative measures such as quality of service in addition to profitability.

Therefore, in measuring the performance of the company, both financial indicators and non-financial indicators play equal roles.

(ii). The impact of using non-financial performance indicators in BAT Ltd

- **The focus is shifted from short-term strategic objectives to long-term strategic objectives.**

When only financial performance indicators are used, the company focuses is on cost reduction However, adopting non-financial performance indicators, the company will consider issues such as customer reliability, customer satisfaction and quality of the product and will focus only on the long-term performance of the company.

- **Focus of managers is shifted from financial measures to qualitative** measures

The managers of the company will focus on qualitative measure such as employee satisfaction, behavior of the employees and productivity.

- **More detailed and finer analysis of financial performance can be made.**

Qualitative information allows a more detailed analysis of the performance of an organisation. Qualitative data complements the quantitative data and therefore allows a better analysis.

- **The competitiveness of the organisation increases**.

The competitiveness of the organisation will be increased. If the performance of an organisation is measured on the basis of non-financial performance indicators, it is probable that the organisation will pay attention to the non-financial indicators such as the quality of the product / service and customer satisfaction which will result in it becoming more competitive in the market.

It is argued that more time and money is spent on the recording, interpreting etc. of the qualitative measures than actual working which is affecting the core business / profitability.

(iii) BCG Matrix Explanation

The BCG Growth-Share matrix (popularly known as the BCG matrix) is a portfolio planning model developed by the Boston Consulting Group in the early 1970s. It is based on the observation that a company's business units can be classified into four categories based on combinations of market growth and market share relative to the largest competitor, hence the name 'growth-share'. Market growth acts as an indicator of industry attractiveness and relative market share serves as an indicator of competitive advantage. The Growth-Share matrix, therefore, maps the business unit positions within these two important determinants of profitability.

Basic assumptions behind BCG matrix

An increase in relative market share will result in an increase in the generation of cash. This assumption is often true because of the experience curve; increased relative market share implies that the firm is moving further ahead on the experience curve compared to its competitors and hence developing a cost advantage.

A growing market requires investment in assets to increase capacity and therefore results in the consumption of cash. Therefore the position of a business on the Growth-Share matrix provides an indication of its cash generation and its cash consumption. The model considers that the cash required by rapidly growing business units could be obtained from the firm's other business units that are at a more mature stage and generating significant cash. By investing to become the market share leader in a rapidly growing market, the business unit could move along the experience curve and develop a cost advantage. From this reasoning, the BCG Growth-Share matrix was born.

While originally developed as a model for resource allocation among the various business units in a corporation, the Growth-Share matrix can also be used for resource allocation among products within a single business unit. Its simplicity is its strength. The relative positions of the firm's entire business portfolio can be displayed in a single diagram.

The four categories of strategic business units / products are:

1. Stars (signify high growth, high market share)

2. Cash cows (signify low growth, high market share)

3. Dogs (signify low growth, low market share)

4. Question marks (also known as 'problem child') (signify high growth, low market share)

(iii) BCG Matrix Limitations

The application of the BCG matrix may sometimes have the following limitations:

- Moving into areas where there is little experience
- Over-milking of cash cows
- Misinterpreting a potentially healthy business as a 'question mark'
- Ignoring the aspect of interrelationships among businesses
- Incorrectly focusing on the business i.e. paying undue attention to wrong businesses which may lead to increase in the number of 'question marks'

(c) (i) **Relevant Costs of Order**

	K'000	**Note**
Material X	(18,000)	**1**
Material Y	88,000	**2**
Labour	82,000	**3**
Overhead	0	**4**
Quality control	0	**5**
Machine rental	43,000	**6**
Total cost	195,000	

Notes

1. This will be an opportunity benefit to the company if used.
2. Material Y is regularly used and is to be replaced immediately and therefore relevant for decision making.
3. For the production line to go ahead the cost of K82,000 on labour will be required.
4. The overheads are allocated costs and therefore does not influence decision making.
5. The quality control cost is not relevant because it non incremental.

6. Rentals is an additional cost to incurred as a result of the decision to go ahead with the production.

(c) (ii) The following financial factors should be considered before BAT proceeds with the order:

- Relevant cash cost of K195,000
- Possible competing quote of K300,000 with competitors
- Indicated price of K330,000 ; though it includes non-cashflows and sunk costs

Any price from K195, 000 to K299, 000 will enable BAT Ltd not to make a loss and will therefore be acceptable. In that case BAT Ltd should proceed.

Qualitative aspects to consider include:

- Is there sufficient spare capacity?
- Is the Muyombe Ltd Company creditworthy?
- Does BAT Ltd have adequate skilled staff?
- Is there a possibility of more orders in future?

(b) (iii) **Pay back period**

Project M:

Year	0	1	2	3	4	5	6	7
Outflow	(7,000)							
Inflow		2,000	2,200	2,080	2,440	2,760	3,200	3,600
Tax @25%			(500)	(550)	(520)	(610)	(690)	(800)
NCF	(7,000)	2,000	1,700	1,530	1,920	2,150	2,510	2,800
Cumulative NCF	(7,000)	(5,000)	(3,300)	(1,770)	150			

Period: 3 years + 1,770/1,920 =3.92years 7,000- 2,000 – 2,200 – 2,080 – 720

Project N:

Year	0	1	2	3	4	5	6	7
Outflow	(7,000)							
Inflow		800	2,000	4,200	3,500	3,200		
Tax @25%			(200)	(500)	(1,050)	(875)	(800)	
NCF	(7,000)	800	1,800	3,700	2,450	2,325	(800)	
Cumulative NCF	(7,000)	(6,200)	(4,400)	(700)	1,750			

Period: 3 years + 700/2,450 =3.29years

Project 0:

Year	0	1	2	3	4	5	6	7
Outflow	(7,000)							
Inflow		4,000	3,000	4,800	800			
Tax @25%			(1000)	(750)	(1,200)	(200)		
NCF	(7,000)	4,000	2,000	4,050	(400)	(200)		
Cumulative NCF	(7,000)	(3,000)	(1,000)	3,050				

Period: 2years +1,000/4,050=2.25years

Advice: **Project O** has the shortest payback period. On financial grounds, it should be undertaken.

*Deduct tax when calculating the Payback period .

(c) (iv)

NPV Model: Project O (K'000

Year:	0	1	2	3	4	5
(Outflows)/inflows	(7,000)	4,000	3,000	4,800	800	
Tax		(0)	(1,000)	(750)	(1,200)	(200)
NCF		4,000	2,000	4,050	(400)	(200)
DF@20%	1.0	0.833	0.694	0.579	0.482	0.402
PV	(7,000)	3,332	1,388	2,345	(193)	(80)
NPV						**(208)**

d) Zero-based budgeting is a system whereby managers are required to submit budget estimates as if the activities of the department were starting from scratch. In other words they have to justify each activity and consider whether it is being carried out in the most cost-effective way possible.

Activity-based budgeting is based on the identification of 'cost drivers' upon which the allocation of resources is then based.

Both systems have the advantage over incremental budgeting of ensuring that managers review the activities of their departments on a regular basis and justify all expenditure. Activity-based budgets have the additional benefit that managers have to identify cost drivers and attempt to reduce or even eliminate non-value adding costs. Activity-based costing, upon which activity-based budgeting is based, might also have some benefits for this company as it offers a method of analysing costs which may be more suitable for this type of business than the traditional fixed/variable approach usually in place.

However, the managing director should be warned that both of these methods are expensive and do not easily lend themselves to 'rolling' except possibly to account for the effects of inflation.

If Mr Tembo wishes to make the organisation more cost and activity conscious then either of these two methods should be considered.

SOLUTION TWO

a) The following are likely to be the main reasons why the planned changes may be restricted.

i) Protecting the status quo and vested interest.

The numbers of barriers to change are related to the unwillingness of LB staff to move away from the way things have been done in the past even if such things are no longer possible.
Well established routines and procedure have a strong influence in attempting to maintain the status quo, along with control systems and symbols. Relationships based on power or dependency are also powerful in persuading people to conform to what they know rather than entering into new, as yet untried, ones.

ii) Fear of having to learn new skills and expertise.

Additional responsibilities in LB Ltd's new structure may result in a number of outcomes both positive and negative. When the person is capable of handling the new responsibility this is a positive and beneficial aspect. In fact some individuals thrive on being given extra tasks and added responsibility. If some people in LB Ltd are not capable of handling new tasks and learn new skills they will consider this as a change impose on them and therefore, resist learning. Some workers may just be untrainable because of their current low levels of education. Their category will really resist the change.

iii) Habit/Inertia

One of the factors which encourage stability in an organisation is that of commitment and the other one is the institutionalization of organisational culture. Workers in LB Ltd may insist that they have achieved success using old methods/culture and resist what the new MD is proposing to do. Old habits die hard.

iv) Fear of redundancy /job losses.

The scenarios states that the MD intends to introduce radical changes to the overall strategic direction of the company, strategic operational systems and procedures. Integration of procedures and operations may inevitably lead to job losses. Here even skilled workers may have to be laid off because where currently three workers are required a new improved structure may require one worker.

(b) The following are the main ways to reduce resistance to the planned changes.

- Involvement of, and communication with those affected by /involved in the changes
- Explaining the need for the changes and the benefits of the changes to those affected or involved.
- Commitment and support of senior management throughout the changes

- Provision of necessary training resources and incentives to implement changes
- Use of the appropriate changes management techniques, such as, Schein's unfreeze/move/freeze and Lewin's Force Field Analysis or Kotter and Schlesinger approach to resistance to change / restraining forces.
- Use of the external and or internal change agents /change masters also known as champions of the change

(C) The aims of a post-project completion audit include:

- To **report** as to whether the **objectives** and the **performance** targets of the new system have been meet.
- To **review** the **actual costs** and **benefits** of the new system, including a comparison to the forecasted costs and benefits in the feasibility study.
- To **learn** from any **mistakes** made so they can be avoided in the future.
- To **recommend improvements** of future updates.
- To **assess** the **overall change process** and the project management quality.

The review should be conducted soon after **implementation** is complete so it is still fresh in the memory. However, it should not be too close to implement as the findings may be distorted by 'teething problems'. A good period to conduct the review is between **one month** and **one year** following implementation.

SOLUTION THREE

(a) The advantages of ROP conducting a stakeholder analysis are as follows:

- ROP will be able to select investments that are more likely to satisfy the expectations of key stakeholders. For example, institutional shareholders will want to see shareholder value increased, so ROP should assess projects on the basis of their NPV.
- ROP will be able to incorporate the opinions of powerful stakeholders when designing projects.
- Identifying and winning over powerful stakeholders will make raising and using resources easier. For example, if the trade union agrees with the project, then staffing changes will be easier to implement.
- Anticipating stakeholder responses will allow proactive management and avoid conflicts. ROP will be able to identify potential objectors to investments and could then adjust how projects are done to reduce resistance. For example, by identifying the fact that some residents will complain about the smell, ROP could spend extra funds to reduce leakages.
- ROP will be able to identify the level of involvement each group requires. For example, which groups need to be included in detailed discussions and which simply need to be kept informed.

(b) The principal stakeholders of ROP can be analysed using Mendelow's power-interest matrix as follows:

Trade union representative – high interest, high power

The trade union representative will have high interest as the decision could reduce the risk of job losses in the future. This person will also be very interested in their role as a local council member as the project will affect the local community in terms of jobs and also pollution.

They will also exercise considerable power as they could call for industrial action and council intervention if unhappy.

Overall one would expect that they will be for the project due to the job implications, although they may feel some conflict of interest as they will not want to see pollution in the community they represent.

Affluent local residents – **high interest, low power**

More affluent residents are more concerned with the leakages and associated smell than the local economy.

They probably have low power to influence the company's decisions, although their wealth may give them powerful friends.

Affluent residents will be against the investment because of the smell.

Other local residents – **high interest, low power**

Other local residents will be more interested in the future fortunes of the company
because it is a major local employer.

These residents also have low power to influence the company's decisions.

Most of these residents will be in favour of the project because of its impact on the local economy. Some may object on environmental grounds.

Institutional shareholders – high interest, low power

Institutional investors will take high interest in all of their main investments, especially focusing on share price and future prospects.

With a collective shareholding of 20%, however, they have little power to influence decisions.

Overall they will be positive about the investment as it improves future prospects.

Customers – low interest, potentially high power

As long as supplies are of suitable quality at reasonable prices, then it is an unlikely customer will take much interest in events. However, should adverse publicity arise over leakages, then they could take more interest as they would not want their images compromised.

Major customers will be able to exert some power by threatening to switch suppliers.

Customers will probably be pro the investment as it will increase supply and may reduce prices.

SOLUTION FOUR

(a) One of the main reasons why Chipata Bicycles Ltd' EIS is becoming expensive to operate is the amount of data which has been, and is being, accumulated. For an EIS to be effective there is a requirement for large amounts of information to be easily accessible – the data should be on-line and as up-to-date as possible. This has disc storage implications which increase over time as the volume of information increases.

The increased costs do not end with disk storage, however. As the system is required to handle larger volumes of data, there are numerous knock-on costs. The larger the database the more processing power required to conduct straightforward operations.

Therefore, another increased expense may be a requirement to invest in hardware as the original processor proves inadequate to handle the volume of information within acceptable response times.

Data is obtained from various different external sources; this may be causing a requirement for extra disk storage in excess of the amount required as a result of the normal growth of the databank.

The information requirements of the executives using an EIS may change over time.

This means that, however carefully the system was set up originally, there will be costs involved in making changes to the way in which the system is set up. The degree with which maintenance and support costs increase will be dependent to some extent on the original design of the programs and database and to what extent the information requirements alter.

Another area where costs may increase is the network service. As the volume of data increases, particularly if appropriate hardware investment is not made, it is likely that it will take longer to extract the required information. This will result in greater costs of actually using the line. The rental of the line may also have increased.

The EIS uses data collated from various sources. There are potential costs associated with the capture of this data; large amounts of data may need to be manually keyed in which has implications on staffing costs or the cost of hiring an agency to do the work.

(b) Management's decision to concentrate on internally-produced information will have serious implications.

Market information

It is important for companies to be aware of the activities of their competitors. By collecting only internally-produced information the management are getting a restricted picture of what is really taking place. Management need to know how their products measure up to those of their competitors in terms of quality, design etc.

Without external information the information system can hardly be described as an EIS, but would be providing information at an operational level. It is important for organisations to establish their own indicators as a means of measuring their performance, but it is at least as important to set these in context. For example, if a production unit is performing well against its own measures but is failing to perform well in relation to its competitors, management needs to be aware of this and take action to recover the situation.

Without competitor information Chipata Bicycles Ltd may find that they are out of line with the rest of the industry. They may find that their competitors are offering free finance, as an example, whereas Chipata Bicycles Ltd are offering 'cheap' finance at 7% APR(Annualised

Premuim Rate); their main competitors may offer free finance for the first year after purchase. This information is invaluable to Chipata Bicycles Ltd to ensure that they remain competitive.

Customer information
One of the sources of information which will be lost will be that relating to customers. This loss will have a damaging impact on the firm; any organisation needs to know about its market, both existing and potential, to survive and grow. Even if an organization currently enjoys a strong position in its sector of the market it would be short-sighted to assume that this situation would remain without consideration of the ever-changing market. Predicting market behaviour is challenging enough with access to wide-ranging information from external sources; without these tools the task becomes virtually impossible.

The industry
There are many sources of information on specific industries, in this case the bicycles industry, which will be lost. Societies established for manufacturers in a particular industry can provide useful information and comparisons about all manufacturers within an industry.

The effect on the company's information system
An EIS needs to afford access to information which is up-to-date and relevant for managers to manage the organisation. The loss of access as described above will, in a very short time, produce the effect that the information available via the EIS is inadequate for effective decision-making. The decisions taken will be short-term and reactive.
The system will cease to be an EIS but will, instead, provide a control mechanism. The kind of information the system will provide will be at an operational level (how many man hours were taken to produce a particular car; how many hours of overtime etc.) rather than providing information to support management decisions.

The effect on the company's products
Without access to external information, Chipata Bicycles Ltd will be unaware of technological innovations; as a result their products will lag behind the rest of the industry and their own innovations may not take full advantage of new technological breakthroughs.
There is the danger of 'reinventing the wheel' which will leave them behind in terms of technological advances and incur unnecessary research and development costs.
External market information would assist Chipata Bicycles Ltd to identify trends in the bicycles industry, from which they could attempt to create marketing opportunities. Without this information marketing opportunities will be forgone.

SOLUTION FIVE

(a) Four factors to be present and key performance indicators

PEL is planning to set up both research and manufacturing facilities, therefore, the following factors should be present in the country:

Macroeconomic factors
Wages rates of the people that will work in the research facilities and later in the factory will need to be taken into account as these can vary from country to country. Many global companies set up operations in countries with lower wage rates to take advantage of lower costs. This may not be appropriate for the research facilities however, where the knowledge and skills of the staff are likely to be more important than financial costs.

A key performance indicator (KPI) could be the average wage rate in the manufacturing sector. Knowledge and skills of the staff would be covered by the KPIs relating to social factors below.

A stable currency reduces the perceived risk of the project and should facilitate better planning. A KPI might be the volatility of the local currency against a benchmark, which could be measured using standard deviations.

Political Factors

A stable political environment will reduce the risk of the investment (e.g. the likelihood of civil unrest, armed conflict or employees being kidnapped by terrorist groups). The political attitude towards foreign firm is also extremely important (e.g. will PEL face protectionist measures regarding ownership structures and repatriation of funds?).
On the other hand some governments may be keen to encourage foreign direct investment through incentives such as loans and tax breaks.
If the country is a member of a regional block such as the COMESA, then exporting components into neighbouring countries will be much easier and cheaper.
A KPI for political factors might be to use rankings from agencies such as transparency international.

Social Factors

High standards of local education, especially to degree level and beyond, will ensure a good supply of suitable candidates to recruit locally for the research facility.

A KPI for standards of local education for the research institute might be the number of graduates each year from relevant degree courses.

As far as the factory is concerned, a good supply of workers with relevant skills is important. It may be possible to train staffs that do not have relevant skills, so the availability of labour in general might be a more relevant factor. This can be measured by employment rates, where a relatively high unemployment rate might be seen as an indication that labour is available.

Technological factors
Is the infrastructure of the target country sufficiently developed? A good transport system will be necessary once the factory is operational for transporting the finished bulbs to the customers – both locally and abroad.

A KPI might be the average cost of transport per ton kilometre.

Ethical issues
PEL would want to check the country's record on human rights to avoid attracting negative publicity as investing there could be considered to be supporting the incumbent regime. This could be measured using rankings prepared by human rights agencies such as Amnesty International.

(b) Impact of Total Quality Management

Total quality management (TQM) is the process of applying a zero defects philosophy to the management of all resources and relationships within an organisation as a means of developing and sustaining a culture of continuous improvement which focuses on meeting customers' expectations.

According to the Chartered Quality Institute, 'TQM is a way of thinking about goals, organisations, processes and people to ensure that the right things are done right first time.'

Importantly, the 'total' in TQM applies to the whole organisation, so it covers 'soft' issues (such as attitudes, cultures and behaviour) as well as operational systems and processes.

One of the most significant developments in performance management has been the emphasis on quality. A key aspect of this has been recognition of the costs of quality.

The current accounting systems focus on the control of costs, using variance analysis as a control mechanism. With a move towards TQM, the focus of the systems should change to monitoring of quality.

The first practical impact would most likely be needed to collect non-financial data on product quality. Metrics such as % of goods returned by customers, or % of goods that are rejected prior to sale will need to be introduced.

Quality costs may also be monitored, so that management can assess the impact of improving quality on the overall costs. One approach is to monitor the following categories of quality costs:
- Costs of conformance – the costs due to increased quality, such as appraisal costs and prevention costs such as training that are necessary to ensure that the quality is acceptable.
- Failure costs – these are the costs of bad quality that should fall as quality increases. Internal failure costs represent costs of fixing or scrapping products that are identified as defective before a sale is made. External failure costs are those relating to replacing or fixing defective products after a sale has taken place.

Targets should be set so that mangers are motivated to work towards higher quality of product.

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 14 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. 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 THIS QUESTION PAPER UNTIL YOU ARE INSTRUCTED BY THE INVIGILATOR.

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

Steel Tech is a public company in the Information Technology (IT) sector based in Zambia. In the recent years, the company has posted a very strong financial position, having developed rapidly through a strategy based upon innovation and creativity. The company has one of the most skilled human resources in IT solutions in the country. However, in the past three years, the company has recorded a decline in the earnings growth. In the previous year, the company eventually recorded a loss, the worst in the history of the company. Therefore, the Directors are worried about the future of the company. Two proposals have been put forward for consideration by the Board of Directors in order to try and save the company from collapse.

Proposal one

Steel Tech has reviewed a number of interesting possibilities for new development projects in the IT sector and has narrowed down the choice to the five projects detailed below. Due to the decline in the financial position of the company, Steel Tech has budget restrictions that may be tighter in a year's time and so does not want to commit to a capital budget of more than K30 million in year 1. In addition, any project cash inflows in year 1 may be used to fund capital expenditure in that year. There is sufficient capital budget remaining at the beginning of the first year to enable all projects to be undertaken and any unused capital cannot be carried over to year 1 and no interest may be earned on unused capital. No borrowings are permitted. The projects are not divisible and each project can only be undertaken once.

Cash inflow		
Project	**K'm Per annum**	**Period**
A	5	From year 1 in perpetuity
B	6	From year 2 in perpetuity
C	6	in year 1 to 10
D	7	in years 3 to 7
E	3	in years 1 to 5
	7	in years 6 to 15

Cash outflow(Year 1)		
Project	**Start**	**End**
	K'm	K'm
A	10	17
B	11	11
C	10	11
D	9	7
E	10	9

Steel Tech is financed by K1 million Ordinary shares (K1 par value) trading at K6 per share and K4 million 8% bonds with par value of K100 on which the interest is payable annually on 31 December. The debt is due for redemption at par in four years' time. The market price of the bonds is K98. The market expected rate of return is 7.5%. FGT Plc a company in the same industry as Steel Tech has an expected return of 8% from its ordinary shares and has an equity beta of 1.2. Steel Tech has an equity beta of 1.95. The current financing structure is not expected to change following the investment in the projects.

Proposal Two

The management of Steel Tech have proposed a Management buyout of a part of the business which focuses on software development. Software development segment is no longer considered as part of main future strategic direction of Steel Tech. This is despite the fact that the business in question has potential for future growth which is estimated to be in excess of 10% per annum. The assets to be acquired have a book value of K3 million but the proposed price is K2.7 million.

The following information relates to the proposed financing scheme for a management buy-out of the software business:

Share capital held by:	Percentage (%)	K'000
Management	40	200
Institutional Investors	55	275
Steel Tech	5	25
Sub total		500
10% redeemable cumulative preference shares (redeemable in 10 years' time)		1,300
12 % Loans		850
Overdraft		800
Total		3,450

Loans are repayable over the next five years in equal instalments. They are secured on various specific assets.

Required:

(a) Write a report to the Board of Directors covering the following:

(i) Advising Steel Tech on the best combination of projects based on an evaluation of each project under proposal one on the basis of both:

(a) NPV of cash flows (12 marks)

(b) A profitability index (12 marks)

(ii) Discussion of whether or not capital rationing techniques based on NPV analysis is appropriate for a publicly-owned entity such as Steel Tech. (6 marks)

(b) Evaluate the effects of the proposed financing scheme of the management buy-out.

(10 marks)

[Total: 40marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

The following financial information relates to DUKA Plc for the year ended 31 December:

Extract Statement of Profit or Loss

	K'm
Revenue	500
Cost of Sales	(200)
Gross profit	300
Operational Costs	(170)
Profit before Interest and Tax	130

Extract Statement of Financial Position

	K'm
Non-Current Assets	320
Current Assets	90
Total Assets	410
Ordinary Shares of K1 each	100
Retained earnings	100
	200
Non-current liabilities: 10% Long term loan	160
Current liabilities	50
Total Equity and Liabilities	410

DUKA Plc can achieve a profit after tax of 30% on the current capital employed after the rights issue. The directors propose to raise an additional K60 million from a rights issue in order to partly finance a capital expenditure of K90 million. Three rights price have been proposed, K1.7, K1.5 and K1.4. The current market price is K1.8 and the company pays corporate tax at the rate of 30% per year. Depreciation amounted to K3 million for the year and is not expected to change significantly in the subsequent years. Working capital is expected to increase by 20% to K4 million per year.

The average gearing level for the industry is 40% and interest cover is 10.

Required:

(a) Estimate the number of shares that must be issued and the dilution in earnings per share based on the three rights price. (7 marks)

(b) Estimate DUKA Plc's expected dividend capacity for the year. (5 marks)

(c) Assess the reasons a rights issue could be an attractive source of finance for DUKA Plc. (8 marks)

[Total: 20 Marks]

QUESTION THREE

MKA Plc has successfully pursued the growth strategy of acquisition as opposed to organic growth. In a recent meeting the directors debated on whether to acquire GHY Inc., a company that is completely in a different industry or BBD Ltd, a company in a similar industry as MKA Plc. Two directors argued that the acquisition of GHY Inc. will help the company reduce the risk through diversification. Others argued that it is not necessary because individual shareholder can diversify themselves. After several discussions, they resolved to acquire BBD Ltd and proceeded to make an offer to the shareholders of BBD Ltd. MKA Plc offered the shareholders of BBD Ltd 9 shares in MKA Plc for every 7 shares held.

The following financial information relates to the two companies, MKA Plc and BBD Ltd for the most recent financial year:

Details	**MKA Plc**	**BBD Ltd**
Profit after tax	K25 million	K8million
Ordinary Shares(Book value) 50 ngwee par value	K80million	K25million
Recent price earnings ratio	26	16

The potential synergistic benefits from the merger were estimated at K5m after tax.

Required:

(a) Discuss whether diversification through acquisitions is an effective means of reducing risk and securing future growth for MKA Plc. (6 marks)

(b) Estimate the value of the proposed offer and the revised earnings per share of MKA Plc after the proposed offer. (6 marks)

(c) Calculate the share price of MKA Plc assuming the synergistic benefits are achieved after the acquisition. (2 marks)

(d) Calculate the effect on the shareholder's wealth of each company as a result of the proposed acquisition. (6 marks)

[Total: 20marks]

QUESTION FOUR

KLM Plc is a large multinational company with subsidiaries worldwide. The company has a commitment to borrow £15 million in five months' time for a period of three months. KLM Plc does not have a central treasury function. However, due to its growing size, KLM Plc is seriously considering setting up a central treasury function.

Financial market analysts project that the interest rates could significantly increase in five months' time. KLM Plc can currently borrow at LIBOR + 1.4%. Three months LIBOR is at 6.6%.

Current LIFFE £500,000 sterling three-month futures prices are:

September 93.30

December 93.00

Assume that it's now the end of June and futures contracts mature at the end of the relevant month.

Required:

(a) Discuss the advantages and disadvantages of centralised treasury management for KLM Plc. (7 marks)

(b) Assuming an increase of 2.5% in LIBOR, estimate the futures price for the hedge at the close out of the contract. Include a brief discussion of whether it is a perfect hedge or not. (7 marks)

(c) Discuss the advantages and disadvantages of other derivative products that KLM Plc might have used to hedge the risk. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

PGK Plc is a large manufacturing company that has been operating within the national boundaries for the past 25 years. The company has dominated the domestic market, claiming over 90% of the market share. Recently, it attracted the attention of the local competition authority over the allegations of possible breach of the competition's Act. In a recent meeting, the Directors discussed the possibility of establishing their interest across the globe to avoid breaching the local laws. However, the board has inadequate information on the ways in which the company can achieve the expansion into the foreign market as well as how to finance it. One of the directors suggested that PGK Plc can use Islamic finance for the expansion programme.

As a Chief Finance Officer of the company, you have been tasked by the Board to come up with a briefing paper on the methods of entering the foreign markets and the merits and demerits of using Islamic finance.

Required:

(a) Discuss the methods that PGK Plc can use to establish its interest in the foreign markets. (12 marks)

(b) Discuss the merits and demerits of Islamic finance to PGK Plc. (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.

SUGGESTED SOLUTIONS

SOLUTION ONE

To: The Board of Directors, Steel Tech
From: Financial Consultant
Date: xxxxxxxxx
Subject: Report on the Proposed Investments

The report highlights the financial evaluation of two proposed investments. Proposal one involves undertaking investment in different projects given the financial constraints. Proposal two involves evaluating the management buy-out of the software business.
Given the capital constraint of K30m for proposal one, this will mean that projects B, E, D should be accepted with a total net cash outflow in Year 1 of K27m and a total NPV of K60m because this gives highest possible NPV given the capital constraint in Year 1 (see appendix 1). Project D has selected over C and A because projects are not divisible and selecting them would mean capital investment of above K30m.

Sign

Financial Consultant

APPENDIX 1

(a) (i) NPV of cash flows:

Project	NPV Km
A (10) + ((17) x 0.909) + (5/0.10)	24.55
B (11) + ((11) x 0.909) + (6/0.10 x 0.909)	33.54
C (10) + [(11) x 0.909) + (6 x 6.145]	16.87
D Cumulative discount factor when n is 7 = 4.868, when n is 2 = 1.736 [(9) + [(7) x 0.909) + (7x (4.868 – 1.736)]	6.56
E Cumulative discount factor when n is 15 = 7.606, when n is 5 = 3.791 (10) + ((9) x 0.909) + (3 x 3.791) + (7 x (7.606 – 3.791)	19.90

On the basis of NPV of cash flows, the ranking of the projects is B, A, E, C, D.

With the capital constraint of K30m, this will mean that projects B and A should be accepted with a total net cash outflow in Year 1 of K28m (11 + 17) and a total NPV of K58.09million.

(i) Profitability index

Project	NPV	Year 1 net outflow	Profitability Index
A	24.55	17	1.44
B	33.54	11	3.04
C	16.87	11	1.53
D	6.56	7	0.94
E	19.90	9	2.21

On the basis of the profitability index, the ranking of the projects is B, E, C, A, D.

Cost of debt

Year	CF	Dis@10%	PV	Dis@6%	PV	
0	(98)	1.000	(98)	1.000	(98)	
1-4	8	3.170	25.36	3.465	27.72	
4	100	0.683	68.3	0.792	79.2	
			NPV	(4.34)		8.92

Cost of debt = 6% + 8.92/8.92+4.34 (10%-6%)
=8.69%

Risk free rate:
FGT Plc: 0.08=Rf + 1.2(0.075% - Rf)
0.08=Rf +0.09-1.2Rf
Rf=0.05 or 5%
Cost of equity(Steel) = 5%+1.95 (7.5%-5%)
= 10%

	K'm	%
Equity= 1m x K6	6	60
Debt 98/100 x K4m	3.92	40
	9.92	

WACC = (10% x0.60) + (8.69% x0.40) = 9.5% round off 10%

(iii) Steel is a publicly-owned entity and is therefore subject to debate as to whether capital rationing techniques based on maximising NPV are appropriate. NPV is a very useful technique for privately owned entities whose prime objective is the maximisation of shareholder wealth. The NPV of a project produces an estimate of the amount by which shareholder wealth will be increased. A publicly-owned entity will have other nonfinancial objectives, such as maximising service, so maximising NPV may not be the most appropriate prime objective.

However, publicly-owned entities are subject to capital rationing as funds, and therefore spending, are restricted. This makes it even more important for them to have an effective way to measure which projects are the most financially attractive, as they are unlikely to be able to borrow additional funds as a private entity could.

b) MBO Financing Scheme

The financing scheme involves the purchase of assets with a net book value of K2.7million and purchase price of K3million. The finance that will be raised will provide funds for K3.45million. Of the funds raised only K0.45million will be available to the business after the purchase price has been paid. This will be in the form of unused overdraft facilities.

Effect of financing scheme on gearing

The gearing is high as it common to MBOs. The gearing level stands at 590%. The preference shares have been treated as debt because they are redeemable in 10 years' time. This gearing level will mean the return to equity will be very risky. This gearing level may also make it difficult to raise additional finance. There are unlikely to be any assets that are not secured and in any case the level of interest and loan repayment would probably prohibit further borrowing.

Cash commitments

Annual payments will have to be made in the repayment of capital and interest on the K850,000 loan. The annual interest payments will be K235,784 (850,000/3.605). Any breach of loan arrangement might trigger the appointment of administrators or receivers and the institutions who have invested in the company may certainly lose out.

Institutional investors may want to realise their investment in a relatively short time frame.

Preference shares of K130,000 will need to paid annually. Since, preference shares are cumulative; there is little flexibility in that if dividend cannot be paid they will just be postponed and not avoided as the case with equity. Further, the preference shares will still need to be redeemed after 10 years.

The overdraft used as part of the purchase price will need an interest payment of K42,000 per (12% of 350,000) year assuming the interest rate is around 12%.

There is a need to generate finances for working capital requirements. And fixed assets as may be required. However, the actual requirement is not known at the moment.

SOLUTION TWO

a)

Current EPS:	K'm
PBIT	130
Interest@10%	(16)
PBT	114
Tax@30%	(34)
PAT	80
EPS	**0.80**

EPS after rights issue:

Capital employed (200+160) =	360
Profit after tax @30%	108

Rights issue price (K)	No. of new shares (K60m/issue price)	No. of shares after rights issue	EPS after rights issue (K)	Current EPS (K)	Dilution EPS
1.7	35	135	0.80	0.80	0.00
1.5	40	140	0.77	0.80	(0.03)
1.4	43	143	0.76	0.80	(0.04)

Note that at a high rights price the earnings per share are increased, not diluted. The breakeven point (zero dilution) occurs when the rights price is K1.7 per share. A right issue is effectively a call option on the firm's equity and even if issued at the current price (a zero intrinsic value) it may still have time value. The value of the call is effectively a deduction from the existing shareholder value.

b)	**K'm**
PAT	80
Add: Depreciation	3
Less: Capital expenditure	(90)
Add:New finance	60
Less: W/Capital(4x25/125)	(0.8)
FCFE	52

The Free Cash Flow to Equity can be used measure the dividend capacity and in this case it is K52millon.

c)

The gearing has improved from 44.4% to 38% which is below the industrial average of 40% following the rights issue. Profit before tax is K154million (108/0.7) and PBIT is therefore K170million (154+16). The interest cover has improved from 8.1 to 10.6 which is slightly above the industry average. A rights issue is therefore an attractive source of finance for DUKA Plc, although it must be noted that equity finance is relatively more expensive than debt finance and will affect the company's cost of capital when assessing projects in the future. A rights issue will decrease gearing and improve interest cover. In addition, the fund raised from the rights issue can be used to redeem some of the debenture debt. The reduction in debt on the balance sheet would make it more appropriate for DUKA to raise additional finance in the future, perhaps at a cheaper rate.

SOLUTION THREE

a) A strategy of diversification does not always provide a sound rationale for merger or an acquisition. One problem is that the synergies identified are often more difficult to achieve when two businesses, which are quite different in nature are combined. Such differences may, for example, prevent MKA Plc from benefiting from economies of scale or the use of complementary resources. Similarly, although the management team of MKA Plc may be highly efficient and highly motivated, it may not have the necessary skills to replace the management team of the Acquired business.

   There may also be problems in trying to integrate the operations of two different kinds of business because of differences in market need, business culture and so on. MKA Plc has always been in the manufacturing industry and the management team may therefore have a number challenges adapting to the management of a company in a completely new sector. Diversification is a useful way of dealing with risk and it is therefore intuitively appealing to see mergers and takeovers as a useful means to achieve this end. The question that must be asked however is whether the directors of the company should diversify or the shareholders should diversify individually. It is usually easier and cheaper for the shareholders to diversify, by acquiring a diversified portfolio of shares than for the directors to diversify. When the directors of a company diversify, by taking over another company, a significant premium is often paid to the shareholders of the target company.

b) Value of proposed offer

<u>VALUE OF PROPOSED OFFER</u>

<u>MKA Plc</u>

Number of shares in MKA Plc= K80/0.5=160m shares

Earnings per share = K25m/160m=K0.156 per share

Price earnings ratio =26

Share price =26 x K0.156 per share=K4.056

<u>BBD Ltd</u>

Number shares in BBD Ltd= K25m/0.5 = 50m shares

Number of shares issued 9/7 x 50m = 64m shares issued.

Value of proposed offer 64m shares x K4.056=K259.58million

REVISED EARNINGS PER SHARE

Revised profits K25m+K8m+K5m=K38million

Revised number of shares 160m+64m=224m

Revised earnings per share K38/224m=K0.17 per share

c) Share price of MKA Plc

Earnings per share=K0.17 per share
Price earnings ratio=26
Share price = K0.17 x 26 = K4.42 per share

d) Effect on shareholder's wealth

MKV Plc
Shareholder wealth before the offer: 160m shares x K4.056 per share=K648.96million
Shareholder wealth after the offer: 160m x K4.42 per share = K707.2million

Gain in wealth of shareholders= K707.2 – K648.96 = K58.24m

BBD Ltd

Before the offer
Earnings per share before the offer: K8m/50m shares=K0.16 per share
Price earnings ratio=16
Share price before the offer = 16 x 0.16=K2.56 per share
Value before the offer=50m shares x K2.56=K128m
Value after the offer=64m shares x K4.056 per share=K259.58m

Gain in shareholder wealth =K259.58m – K128m =K131.58million

SOLUTION FOUR

(a) Advantages of centralised treasury management

(i) Centralised management avoids having a mix of cash surpluses and overdrafts in different localised bank accounts. It facilitates bulk cash flows, so that lower bank charges can be negotiated and the subsidiaries that need to borrow can borrow from the parent company and hence gain the benefit of lower rates.

(ii) Larger volumes of cash are available to invest, giving better short-term investment opportunities (for example international money markets, high-interest accounts and CDs). (iii) Any borrowing can be arranged in bulk, at lower interest rates than for smaller borrowings, and on the eurocurrency or eurobond markets. Interest rate hedging will be facilitated.

(iv) Foreign currency risk management is likely to be improved in a multinational group of companies. A central treasury department can match foreign currency income earned by one subsidiary with expenditure in the same currency by another subsidiary.

(v) A specialist treasury department will employ experts with knowledge of dealing in forward contracts, futures, options, eurocurrency markets, swaps and so on. Localised departments would not normally have such expertise.

(vi) The centralised pool of funds required for precautionary purposes will be smaller than the sum of separate precautionary balances that would be held under decentralised treasury arrangements.

(vii) A central function acts as a single focus, ensuring the strategy of the group is fulfilled and group profitability is enhanced by good cash, funding, investment and foreign currency management.

(viii) Transfer prices can be set centrally, thus minimising the group's global tax burden.

Disadvantages of centralised treasury management

(i) Local departments may find it easier to diversify sources of finance and match local assets.

(ii) Centralised management means that managers in subsidiaries and divisions are not motivated by being given the autonomy to deal with cash management and it may be difficult to assess their performance if the major decisions are being made centrally.

(iii) A decentralised Treasury function may be more responsive to the needs of individual operating units.

(iv) A decentralised operation may find it easier to invest its own balances quickly on a short term basis than a centralised function would.

(v) A central function may find it difficult to monitor remote sites; it may be difficult to obtain information from those sites.

(b)

- The company will borrow in late October after expiry of September contracts; therefore, it will use December futures contracts.
- The company will hedge against a possible increase in interest rates by selling December futures contracts now. If interest rate rise the futures price will fall and the company will make a futures profit by buying back at a lower price than it sold.
- The company will need to sell 30 (£15million/£0.5million) Number of December three- months sterling contracts at an excise price of 93.00

	June		November
Cash market (100-6.6)	93.40	(100-9.1)	90.90
December future price	93.00		90.83
	0.40 x 1/6		0.07

The futures price and cash market price will converge to the same value at the maturity date of the futures contract at the end of December.
If the interest rates increase by 2.5% to the equivalent of 90.90 in the cash market, the futures price is expected to move to 90.83. The loss of 2.5% in the cash market will be offset by a gain of 2.17% (93.00 – 90.83) in the futures market, which is an imperfect hedge. However, there is no guarantee that the basis at the end of November will be 7 basis points.

(c) Alternative derivative products

(i) Forward rate agreements

Forward rate agreements (FRAs) are agreements, usually with a bank, that fix the rate of interest on future borrowings (or deposits). KLM could enter into an agreement to fix the interest rate at 6.6% (for example). If rates rose to a higher level the bank would compensate the company for the difference in interest incurred. If rates fell, then KLM would have to make a similar payment to the bank. A likely disadvantage of this product is that the rate negotiated by the bank will reflect the bank's own expectations of interest rate movements. If the bank also expects a significant rise in rates, KLM is unlikely to be able to negotiate a FRA at the rate it would need to achieve its targets.

(ii) Interest rate swaps

Swaps are transactions that exploit different interest rates in different markets for borrowing. Two companies, or a company and a bank, swap interest rate commitments with each other. Thus KLM might be able to convert its floating rate interest into a fixed rate liability thereby fixing its interest costs at somewhere near to present levels. Swaps are cheap and easy to arrange, but it may be difficult to restrict the period to six months.

(iii) Over the counter (OTC) options

OTC options are similar in form to the traded options considered above, but instead of being purchased on the exchange, they are obtained from a bank and tailored to suit the company's specific requirements.

SOLUTION FIVE

i)

Different forms of expansion overseas are available to meet various strategic objectives.

(a) Firms may expand by means of new 'start-up' investments, for example in manufacturing plants. This does allow flexibility, although it may be slow to achieve, expensive to maintain and slow to yield satisfactory results.

(b) A firm might take over or merge with established firms abroad. This provides a means of purchasing market information, market share and distribution channels. If speed of entry into the overseas market is a high priority, then acquisition may be preferred to start-up. However, the better acquisitions may only be available at a premium.

(c) A joint venture with a local overseas partner might be entered into. A joint venture may be defined as 'the commitment, for more than a very short duration, of funds, facilities and services by two or more legally separate interests to an enterprise for their mutual benefit.' Different forms of joint venture are distinguished below.

Joint ventures

The two distinct types of joint venture are industrial co-operation (contractual) and joint-equity. A contractual joint venture is for a fixed period and the duties and responsibility of the parties are contractually defined. A joint-equity venture involves investment, is of no fixed duration and continually evolves. Depending on government regulations, joint ventures may be the only means of access to a particular market.

The main advantages of joint ventures are:

(a) Relatively low cost access to new markets

(b) Easier access to local capital markets, possibly with accompanying tax incentives or grants

(c) Use of joint venture partner's existing management expertise, local knowledge, distribution network, technology, brands, patents and marketing or other skills

(d) Sharing of risks

(e) Sharing of costs, providing economies of scale

The main disadvantages of joint ventures are:

(a) Managerial freedom may be restricted by the need to take account of the views of all the joint venture partners.

(b) There may be problems in agreeing on partners' percentage ownership, transfer prices, reinvestment decisions, nationality of key personnel, remuneration and sourcing of raw materials and components.

(c) Finding a reliable joint venture partner may take a long time.

(d) Joint ventures are difficult to value, particularly where one or more partners have made intangible contributions.

Exploiting and licensing

Exporting and licensing stand as alternatives to FDI. Exporting may be direct selling by the firm's own export division into the overseas markets, or it may be indirect through agents, distributors, trading companies and various other such channels. Licensing involves conferring rights to make use of the licensor company's production process on producers located in the overseas market.

LICENSING is an alternative to foreign direct investment by which overseas producers are given rights to use the licensor's production process in return for royalty payments.

EXPORTING may be unattractive because of tariffs, quotas or other import restrictions in overseas markets, and local production may be the only feasible option in the case of bulky products such as cement and flat glass.

The main advantages of licensing are:

(a) It can allow fairly rapid penetration of overseas markets.

(b) It does not require substantial financial resources.

(c) Political risks are reduced since the licensee is likely to be a local company.

(d) Licensing may be a possibility where direct investment is restricted or prevented by a country

(e) For a multinational company, licensing agreements provide a way for funds to be remitted to the parent company in the form of licence fees.

The main disadvantages of licensing are:

(a) The arrangement may give to the licensee know-how and technology which it can use in competing with the licensor after the license agreement has expired.

(b) It may be more difficult to maintain quality standards, and lower quality might affect the standing of a brand name in international markets.

(c) It might be possible for the licensee to compete with the licensor by exporting the produce to markets outside the licensee's area.

(d) Although relatively insubstantial financial resources are required, on the other hand relatively small cash inflows will be generated.

Management contracts

Management contracts whereby a firm agrees to sell management skills are sometimes used in combination with licensing. Such contracts can serve as a means of obtaining funds from subsidiaries, and may be a useful way of maintaining cash flows where other remittance restrictions apply. Many multinationals use a combination of various methods of servicing international markets, depending on the particular circumstances.

Overseas subsidiaries

The basic structure of many multinationals consists of a parent company (a holding company) with subsidiaries in several countries. The subsidiaries may be wholly owned or just partly owned, and some may be owned through other subsidiaries. Whatever the reason for setting up subsidiaries abroad, the aim is to increase the profits of the multinational's parent company. However there are different approaches to increasing profits that the multinational might take. At one extreme, the parent company might choose to get as much money as it can from the subsidiary, and as quickly as it can. This would involve the transfer of all or most of the subsidiary's profits to the parent company. At the other extreme, the parent company might encourage a foreign subsidiary to develop its business gradually, to achieve long-term growth in sales and profits. To encourage growth, the subsidiary would be allowed to retain a large proportion of its profits, instead of remitting the profits to the parent company.

Branches

Firms who want to establish a definite presence in an overseas country may choose to establish a branch rather than a subsidiary. Key elements in this choice are as follows.

Taxation

In many countries the remitted profits of a subsidiary will be taxed at a higher rate than those of a branch, as profits paid in the form of dividends are likely to be subject to a withholding tax. How much impact the withholding tax has however, is questionable, particularly as a double tax treaty can reduce its import. In many instances a multinational will establish a branch and utilise its initial losses against other profits, and then turn the branch into a subsidiary when it starts making profits.

Formalities

As a separate entity, a subsidiary may be subject to more legal and accounting formalities than a branch. However, as a separate legal entity, a subsidiary may be able to claim more reliefs and grants than a branch.

Marketing

A local subsidiary may have a greater profile for sales and marketing purposes than a branch.

ii) **Advantages of Islamic finance**

Islamic finance operates on the underlying principle that there should be a link between the economic activity that creates value and the financing of that economic activity. The main advantages of Islamic finance are as follows.

(a) Following the principles of Islamic finance allows access to a source of worldwide funds. Access to Islamic finance is also not just restricted to Muslim communities, which may make it appealing to companies that are focused on investing ethically.

(b) Gharar (speculation) is not allowed, reducing the risk of losses.

(c) Excessive profiteering is also not allowed; only reasonable mark-ups are allowed.

(d) Banks cannot use excessive leverage and are therefore less likely to collapse.

(e) The rules encourage all parties to take a longer-term view and focus on creating a successful outcome for the venture, which should contribute to a more stable financial environment.

(f) The emphasis of Islamic finance is on mutual interest and co-operation, with a partnership based on profit creation through ethical and fair activity benefiting the community as a whole.

Drawbacks of Islamic finance

The use of Islamic finance does not remove all commercial risk. Indeed, there may even be additional risk from the use of Islamic finance. There are the following drawbacks from the use of Islamic finance.

(a) There is no international consensus on Sharia interpretations, particularly with innovative financial products. Certain financial products may be acceptable in some markets but not in others. For example, some Murabaha contracts have been criticised because their products have been based on prevailing interest rates rather than economic or profit conditions.

(b) There is no standard Sharia model for the Islamic finance market, meaning that documentation is often tailor-made for the transaction, leading to higher transaction costs than for the conventional finance alternative.

(c) Due to the need to comply with normal financial laws and Sharia restrictions, Islamic finance institutions are subject to additional compliance work which can also increase the costs of developing new products and transaction costs. Information asymmetry between the borrower and institution will also mean that due diligence work is required.

(d) Islamic banks cannot minimise their risks in the same way as conventional banks, as hedging is prohibited.

(e) Some Islamic products may not be compatible with international financial regulation. For example, a diminishing Musharaka contract may not be an acceptable mortgage instrument in law. (f) Trading in Sukuk products has been limited. Since the financial crisis, issuance of new Sukuk products has decreased.

(g) Corporations may not be able to demonstrate that contracts are effectively debt and they therefore may not attract a tax shield, meaning that their cost of capital will increase.

(h) Because Islamic financial institutions take an active role on some contracts, it may become more complicated for companies to balance the interests of the financial institution with those of other stakeholders.

(i) The longer focus of arrangements may mean Islamic institutions are slower to react to market changes and may lack short-term flexibility. Approval of new products can take time.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

THURSDAY 13 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

The International Organization of Supreme Audit Institutions (INTOSAI) has the mandate to monitor the performance of the Supreme Audit Institutions (SAIs) of member countries. It set up a monitoring unit whose mandate includes going to member countries and establishes whether the Supreme Audit Institutions (SAIs) of member countries meet the requirements of the Lima and Mexico declarations.

The International Organization of Supreme Audit Institutions (INTOSAI) sent a team of three members drawn from different member countries to go and evaluate the adherence with the principles of the Lima and Mexico declarations by the newly established Supreme Audit Institution of the Republic of East Africa (REA).

You are part of the team that was tasked to carry out an evaluation of the newly established Supreme Audit Institution of the Republic of East Africa (REA).
The mandate your team has been given by the International Organization of Supreme Audit Institutions is to:

1. Establish compliance by the newly established Supreme Audit Institution of the Republic of East Africa to the Lima and Mexico Declarations.
2. Induct staff of the Supreme Audit Institution of the Republic of East Africa on public sector financial audit planning.
3. Establish the extent to which the Supreme Audit Institution of the Republic of East Africa performs its audits according to International Standards of Supreme Audit Institutions specifically the recently introduced ISSAI 1701 *Key Audit Matters.*

You established the following information:

1. The country has a constitution which sets out the legal framework within which the SAI operates, clearly spelling out its independence from other government agencies.

2. The Minister of Finance appoints the head of the SAI and is annually appraised by the ministry. The head of the SAI is on a three year contract and if he gets satisfactory appraisals in two of the three years the contract is renewed.

3. A Committee of Cabinet Ministers of the REA decides on the programs that will be subject to audit by the SAI. In the event that the SAI wishes to carry out an audit not approved by the committee, the SAI should seek the authorization of the cabinet committee.

4. For security reasons, the SAI is not permitted to gain access to any documents or information that are of a security nature. This is because of the threat of unauthorized disclosure which could result in a state security risk.
5. All reports by the SAI are supposed to be cleared by the Minister of Finance before publication. The Minister of Finance then consults with the audited entities and has the power to require that some observations and recommendations be removed from the report.

6. The SAI is funded by the Ministry of Finance just like any other department under the ministry. The Head of the SAI submits his budget requirements on an annual basis and this forms part of the consolidated budget for the ministry that is presented to parliament for approval and appropriation. In the past the SAI only obtained half of the required resources to perform its duties.

Required:

(a) Distinguish between the Lima Declaration and the Mexico Declaration of the International Organization of Supreme Audit Institutions. (4 marks)

(b) (i) Evaluate the adherence of the Supreme Audit Institution of the Republic of East Africa (REA) to the principles of Mexico Declaration. (9 marks)

(ii) Discuss the need for the Supreme Audit Institution and the staff of the Supreme Audit Institution to be independent of the institutions that are subject to audit. (4 marks)

(iii) Recommend best practice on the appointment and dismissal of the head of the Supreme Audit Institution (SAI) of a country. (4 marks)

(c) (i) Explain the purpose and content of the introduced Key Audit Matters Paragraph of the auditor's report. (4 marks)

(ii) Discuss the relationship between the Key Audit Matters and the auditor's opinion . (3 marks)

(d) (i) Discuss the importance of audit planning before embarking on a public sector financial audit. (4 marks)

(ii) State and explain the difference between the audit strategy and audit plan giving details of matters contained in each of them. (8 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) out of FOUR (4) questions

QUESTION TWO

Zambia has a long-term development plan, known as Vision 2030. It is underpinned by principles of gender-responsive sustainable development, democracy, and respect for human rights, good traditional and family values, positive attitude towards work, peaceful coexistence, and private - public partnerships.

Last year, the government gave K1 million to a non-governmental organization known as Gender Foundation aimed at supporting Gender-responsive sustainable development. Gender Foundation was formed three years ago by a well-known gender activist. To ensure accountability of the public funds given, the Chief Executive Officer of the foundation was recommended by the Auditor General.

You are the Lead Auditor for the compliance audit of Gender Foundation. Gender Foundation recently employed your son as a Cashier following your request to the Chief Executive Officer.

You have assessed the risks at Gender Foundation as low and you have encouraged your wife to form a charity dealing with gender issues. Your wife holds a degree in gender issues and has worked for a number of international organizations.

The Auditor General has given you the responsibility to train four ZiCA CA graduates who recently joined the organization. They have asked you to explain the principles of a compliance audit report.

During your free time, you normally participate in political debates involving major political parties in the country. The constitution allows all citizens freedom of assembly and expression of any views.

Required:

(a) Describe the relationship between parliament, government (ministries and other institutions) and public sector auditors. (4 marks)

(b) Explain the principles of a compliance audit report. (6 marks)

(c) Identify and explain four (4) ethical threats to independence in the compliance audit of Gender Foundation. (6 marks)

(d) Suggest appropriate safeguards for each ethical threat identified in (c) above. (4 marks)

[Total: 20 Marks]

QUESTION THREE

You are an Auditor in the Office of the Auditor General and you are responsible for both the financial audit of Western Cooperative for the year ended 31 December 2018 and the compliance audit. The compliance audit is scheduled to start after the financial audit. The Western Cooperative has put various strategies, which are aimed at increasing the development of the small scale farming sector and therefore increasing the sector's productivity and improving food security in the Western Province of the Republic of Zambia. Farmers involved in cashew nut have increased their hectares under irrigation and their level of mechanization. The government, through the Ministry of Agriculture is improving the agricultural extension services, access to markets, increasing accessibility to finance and credit facilities.

The audit report was signed on 31 March 2019 but the financial statements have not been issued to the stakeholders. On 16 April 2019, management informed you that bags of cashew nuts which were part of the stocks in the warehouse at the year-end were sold for K6 million following significant deterioration in quality. Investigations established that this was caused by a flood which occurred on 15 April 2019, in the warehouse. The financial statements for the year ended 31 December 2018 show a value of K10 million for these cashew nut bags.

The profit before tax is K3 million and the total assets have a value of K100 million.

Compliance audits are generally conducted either:

1. Together with the audit of financial statements, or
2. Separately from the audit of financial statements, or
3. In combination with performance audits.

In the interest of cost reduction and given the expected reduced funding next year, the Auditor General has requested you to provide simplified notes on the various approaches of conducting a compliance audit. This will be used to plan next year's compliance audit.

Required:

(a) Describe the elements of an audit of financial statements. (6 marks)

(b) Explain the various approaches of conducting a compliance audit. (5 marks)

(c) Discuss the reasons why it is necessary to carry out audit procedures on the event which occurred on 15 April 2019. (6 marks)

(d) Describe the audit procedures to be performed in respect of the event which occurred on 15 April 2019. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

White Ltd is a public company formed to provide cheaper coal to government owned coal powered plants. During the year 2018, White Ltd spent K50 million to computerize all its operations. The Information Technology expert who was used in the computerization process has requested management to release an additional amount of K2 million for cyber security works. However, management does not see the need for this and has requested the Auditor General to provide advice on the importance of cyber-security.

The Managing Director recently attended a workshop organized by ZiCA concerning the National Financial Inclusion Strategy (NFIS) framework. After the workshop, White Ltd's management made a decision to switch to on-line banking. This has resulted in a number of challenges leading to increased items to reconcile. The bank reconciliation statement as at 31 December 2018 showed outstanding lodgments amounting to K183 million. The outstanding lodgments have increased by 60% compared to last year.

You recently joined the Office of the Auditor General following your resignation as a Cashier at Livingstone Motel, which is owned by the government. The Auditor General has given you responsibility for quality control regarding the audit of White Ltd's financial statements for the year ended 31 December 2018. The financial audit is scheduled to end on 20 March 2019. The Engagement Partner has been appointed by Cabinet Office to represent the government in the negotiations with the mining companies over the new mining tax regime. The appointment is with immediate effect and is expected to end on 31 March 2019.

A junior member of the audit team has been given a laptop by White Ltd to enable him perform his work faster. The Finance Director of White Ltd has told him to keep it after the audit and the junior auditor has accepted this.

Required:

(a) Explain the importance of cyber-security. (4 marks)

(b) Describe the specific challenges which the auditor is likely to experience when gathering audit evidence during the IT audit in White Ltd, a public company. (6 marks)

(c) Discuss quality control deficiencies in the financial audit of White Ltd for the year ended 31 December 2018. (6 marks)

(d) Explain, in detail, two (2) audit procedures that should be performed on outstanding lodgments reflected on the bank reconciliation statement for White Ltd. (4 marks)

[Total: 20 marks]

QUESTION FIVE

You are a Senior Auditor in the Office of the Auditor General. You are currently planning a forensic audit for one of the biggest mines in which the government through the Ministry of Finance owns a majority shareholding. Zambia has a mining history of over 90 years, with copper being the predominant product as well as the mainstay of the economy and foreign direct investment and earnings. Copper has played a major role in the economic and social development of the country. However, its contribution to the country's GDP has been declining and the recent program of expenditure in the mining township worth K400 million for the prevention of malaria was not properly accounted for. The government has ordered a forensic audit of this program of expenditure. The audit for the declining contribution to the country's Gross Domestic Product will be conducted next year.

The Auditor General has warned you to be very careful when designing and performing audit procedures because you are likely to prepare and give evidence as an expert witness in a court of law. This forensic audit is already in the public eye and the expected level of integrity and professional skepticism are very high.

You have never performed high profile forensic audits before and you will rely on the Audit Manager who holds both accountancy and legal qualifications. He has advised you to be conversant with the additional duties imposed on expert witnesses by legal provisions.

Required:

(a) Explain the following methods of obtaining audit evidence:

(i) Inquiry (2 marks)
(ii) Observation (2 marks)
(iii) Analytical procedures (2 marks)

(b) Discuss the limitations of using analytical procedures related to program expenditure, using the comments in the Practice Note for ISSAI 1520. (4 marks)

(c) Explain why it is important for the forensic auditor to know the law. (3 marks)

(d) Advise the Senior Auditor in the Office of the Auditor General on the additional duties expected of him when preparing and giving evidence as an expert witness.

(7 marks)
[Total: 20 Marks]

END OF PAPER

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE SOLUTIONS

SOLUTION ONE

a) Distinction between the Lima and Mexico declarations:

The International Organization of Supreme Audit Institutions (INTOSAI) issued the **Lima Declaration.** This declaration specifies guidelines on auditing precepts.

The Lima guidelines gives general guidelines from which member countries can develop their own frameworks for the organization and running of Supreme Audit Institutions in their individual countries.

The Lima Declaration among other precepts includes precepts on the role of the Supreme Audit Institutions and the issues related to the independence of the Supreme Audit Institutions necessary for them to effectively carry out their mandate.
The Lima Declaration emphasizes the need for the SAI to be independent of the entities they audit if they are to be objective.

The Mexico Declaration

This was issued subsequent to the Lima Declaration by the International Organization for Supreme Audit Institutions (INTOSAI).

The Mexico Declaration is set out in ISSAI 10. This standard sets out eight principles for SAI independence. These principles provide benchmarks against which the extent of SAI independence in any country can be judged.

Comparison between Lima & Mexico Declarations:

It should be noted that the Lima Declaration has some content on the independence of the public sector auditor. On the other hand the Mexico Declaration deals only with principles that deal with the independence of the Supreme Audit Institutions.

b) i. Adherence with the Mexico Declaration of the SAI of Republic of East Africa (REA):

1. The inclusion in the constitution of the Republic of East Africa (REA) a clause in the constitution that protects the independence of the SAI is in line with one of the concepts of the Mexico Declaration which states that the establishment of the SAI with the necessary degree of independence should be included in the constitution.
2. The appointment and regular assessment of the head of the Supreme Audit Institution of the REA is inappropriate. This is contrary to the Mexico declaration which states that the head of the SAI should not be subject to control or direction by another person.

The Ministry of Finance is a major spending ministry of public funds. It is not appropriate that the head of the SAI should be appointed by the Ministry of Finance and be appraised by the Minister.

3. Decisions by the cabinet of REA concerning the subject matters that should be audited is not correct.
   The Mexico Declaration states under the heading Audit Methods that the SAI should audit in accordance with a self-determined programme.
4. The refusal to supply information to the public sector auditor is contrary to the provisions of both the Lima and the Mexico Declarations. Both of these declarations provide that the SAI should have access to all records and documents relating to financial management (Lima Declaration.) The Mexico Declaration states thus:
   The SAI should have unrestricted access to all documents and information that it needs or the discharge of its duties.
5. The scrutiny by the Minister of Finance of the work of the SAI is not in line with the provision of the Mexico Declaration which states that the SAI should be required by the constitution to report its findings annually to parliament.
6. Funding of the SAI by the Minister of Finance is not appropriate. This is contrary to the Mexico Declaration which states that the SAI should be provided with the financial means to enable them carry out their tasks.

ii. Need for independence of the SAI and its staff:

The SAI is mandated to give an objective view on how public funds are spent on behalf of the country's citizens.

In order to fulfill its mandate, the SAI and its staff should be independent of the entities that are subject to audit. Lack of independence of the institution and its staff erodes the objectivity that is necessary in fulfilling its mandate.

One of the ethics that the SAI is expected to adhere to is that of objectivity and so should always evaluate and ensure that this is observed at all times before and during the performance of an assignment.

iii. Best practice of appointing Head of the SAI:

The appointment of the Head of the SAI should be enshrined in the constitution. Further, removal from office should also be clearly defined in the constitution. For the Head of the SAI to perform his work effectively he should be assured of the tenure of office.

In Zambia the OAG is appointed by the President and is ratified by parliament.

c) i. Purpose and content of the KAM Paragraph:

The Key Audit Matters paragraph was introduced recently when ISSAIs on reports were revised. The introduction was made to make the audit report more informative.

It is part of the report of listed companies and highlights matters of significance that the auditor faced during the audit.

Content of the Key Audit Matters Paragraph:

The KAM paragraph is meant for the auditor to disclose issues that he faced during the audit for the benefit of the users of financial statements.

There are many matters that the auditor communicates to those charged with governance during the course of the audit.

The auditor, using his professional judgment, selects significant matters from among the issues that were communicated to those charged with governance.

ii. Relationship between KAM & Auditor's Opinion:

The Key Audit Matters Paragraph is part of the standard audit report.

The paragraph is not an opinion paragraph in itself and it does not constitute a modification of the report or the auditor's opinion. It merely provides more information about the process that led up to the opinion on the financial statements.

The auditor has to decide where to put matters between the KAM paragraph and the EoM paragraph. This is because both of these contain matters that are in the financial statements and disclosed in the financial statements.

d) i. Importance of planning:

ISSAI 1300 *Planning an Audit of Financial Statements* gives guidance on audit planning.

The auditor plans the audit so that the audit can be performed in an effective manner and this improves the audit in the following ways:

Attention given to important areas – Since sampling is used in picking items for testing it is helpful if the audit is well planned so that risky and important areas are identified so that more effort is given to these areas.

Organizing the audit – Through planning, the audit will be organized in such a way that it will be performed efficiently.

Selecting team members – Arising from the audit plan suitable audit team members will be selected and assigned to audits. Staff have different skills and competencies and so through planning staff will be assigned where they will be most productive.

Facilitating direction, supervision and review – Through proper planning for the audit, the audit will be well directed, supervised and reviewed and in this way the risk of issuing an inappropriate opinion is reduced.

Coordinating work done by experts – Through planning of the audit, it is possible to determine the need for an expert. Further, the work of experts will be well coordinated.

ii. Audit strategy:

The audit strategy sets out in broad terms how the audit will be carried out. It gives a broad outline of how the auditor intends to perform the audit and it gives way to the development of the detailed audit plan.

Content of audit strategy:

The audit strategy will include the following components:
Characteristics of the engagement dealing with:

- The relevant reporting framework.
- Industry the entity is in and any specific reporting requirements.
- The expected audit coverage that is the scope of the engagement.
- The availability of client staff and client data.

Reporting objectives, timing of the audit & communication dealing with:

- The reporting timetable for the client which will help the auditor plan his work to meet the deadline.
- Discussions to be held with management and those charged with governance.

Nature, timing & extent of resources which covers:

- The selection of the engagement team based on skills of the auditors.
- Assigning work to individual audit team members and
- Matters relating to the budget to undertake the audit.

Audit Plan:

The audit plan is derived from the audit strategy and gives in detail how the strategy will be fulfilled to enable the audit to be completed within the planned time.

Content of audit plan:

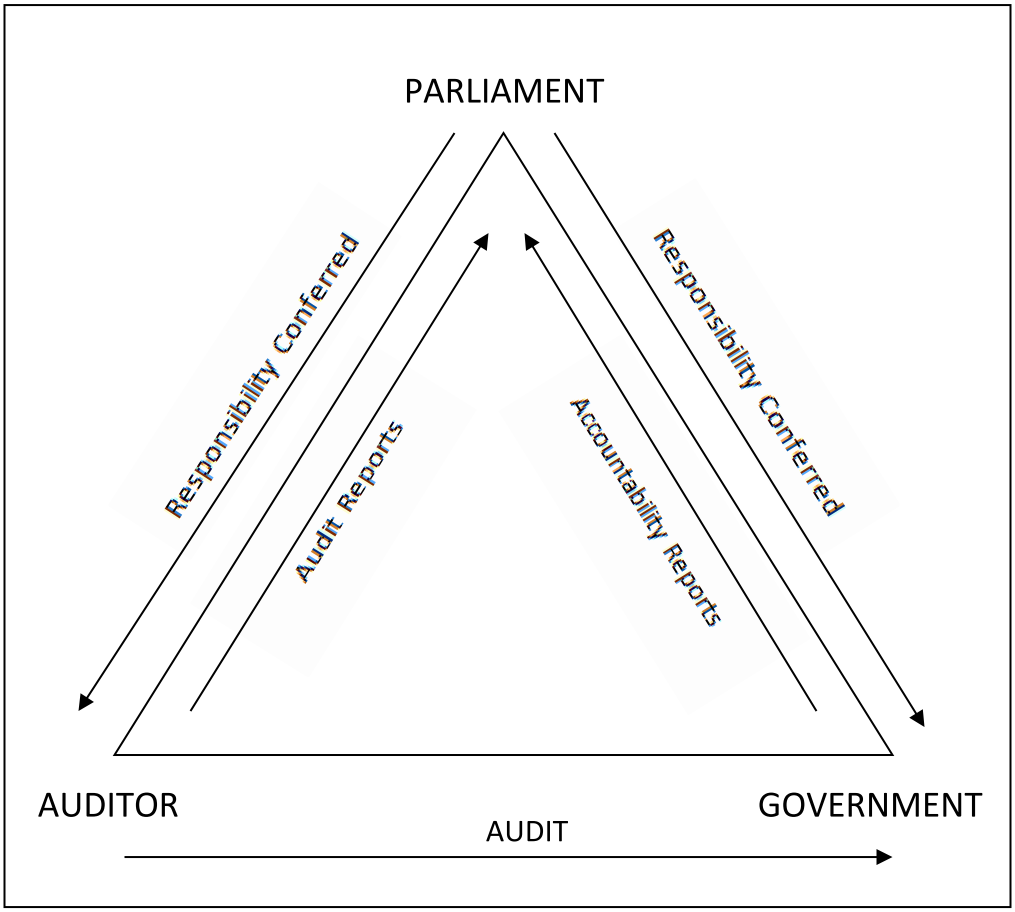
The audit plan will include mattes such as:

- Details of the planned audit work that will be performed.
- Work to be carried out will be allocated to audit team members.
- Details of the audit work that will be performed for each major account area. This is the work seeking to detect material misstatements.

SOLUTION TWO

a) Relationship between parliament, government (ministries and other institutions) and public sector auditors:

The relationship between parliament, government (ministries and other institutions) and public sector auditors is illustrated in the following diagram:



(Presentation by the Director General of the OAG to the INTOSAI Working group on Key National Indicators, Bali, 2014)

The auditors in this diagram are an independent department within government. This department is known generally as a Supreme Audit Institution (SAI). In Zambia, the SAI is the Office of the Auditor General (OAG).

This is referred to as the accountability triangle. Hence, the explanation is that accountability in the public sector is established when Parliament confers responsibility on government ministries and other institutions who are supposed to account for their actions. The Auditor General's responsibility is also conferred by Parliament to audit and report upon the manner in which conferred responsibilities have been discharged by the ministries, provinces and other spending agencies.

b) **Principles of a compliance audit report:**

The principles of a compliance audit report are as follows:

- Completeness – the application of this principle will depend on whether a report is long or short form.
- Objectivity – the report should be factually correct, and the findings and conclusions should be presented in a relevant, fair and unbiased manner.
- Timeliness – the report should be presented in time to be relevant for decision-making by the intended user(s).
- Accuracy and consultation – the accuracy of the facts in the report should be checked with the audited entity.
- Contradiction – as appropriate, responses from the audited entity should be included in the report, and answers or an assessment of those responses should be given.

Long-form reports (sometimes called 'compliance audit special reports') describe in detail the audit findings and conclusions, and include constructive recommendations.

Short-form reports are much shorter and are presented in a standardized format.

c) Ethical threats to independence include:

- **Participation in political debates** – this affects independence and objectivity. Professional conflicts are likely to arise especially where the people being audited hold different political view. 'Independence in appearance is just as important as independence in fact'. Independence may be impaired by giving public expression to personal political views and the audit could be seen as a tool being used directly or indirectly to "fix" political opponents.
- **Abuse of powers** – the request by the Lead Auditor to the Chief Executive Officer concerning the employment of the son as a Cashier is unprofessional. The integrity of the Lead Auditor is highly questionable and he is likely to face a significant self-interest threat. He may not exercise the required professional skepticism when carrying out the compliance audit as a way of returning the favor.
- **Disclosure of information** – the disclosure of information to the wife is against the professional duty of confidentiality. Gender Foundation will not be happy with this disclosure and this could even attract serious sanctions from the Office of the Auditor General and ZiCA
- **Participation in the management of an audited entity** – the Chief Executive Officer was recommended by the Auditor General, which effectively means a management decision was taken by the Office of the Auditor General. This is unprofessional conduct and may lead to serious self-interest threat.

d) Safeguards to ethical threats identified include:

- **Participation in political debates** – ISSAI 30 *Code of ethics* requires that SAI staff should be independent from political influence and free from political bias. Even where individual staff members are allowed to be affiliated to a political party or group, they need to be aware that this could lead to professional conflicts. 'Independence in appearance is just as important as independence in fact'. The Lead Auditor must be removed from the assignment.
- **Abuse of powers** – the standard requires that SAI staff should use their powers, information and resources at their disposal solely for the public interest. They must not use their position to obtain favors or personal benefits from third parties. The Lead Auditor's work should be reviewed by a senior person in the Office of the Auditor General.
- **Disclosure of information** – The standard requires that SAI staff should maintain professional confidentiality after their employment has terminated, as well as during their employment. Serious disciplinary measures should be taken against the Lead Auditor in line with the code of conduct for the Office of the Auditor General.
- **Participation in the management of an audited entity** – The standards states that a SAI staff member should not recommend a specific individual for appointment to a key post in an audited entity. Hence, in the case of Gender Foundation, as a safeguard, the work done should be reviewed by an independent third party, and for the future, the Auditor General should not participate in managerial decision making.

SOLUTION THREE

a) Elements of an audit of financial statements:

1. **Planning an audit of financial statements** – ISSAI 1300 *Planning an Audit of Financial Statements* consists of ISA 300 and a Practice Note. The standard states that the auditor should plan the audit so that it will be performed in an effective manner.
2. **Conducting the audit** – the audit plan is put into effect by conducting audit procedures and gathering sufficient appropriate audit evidence to support the audit opinion. During the course of the audit, misstatements may be detected which may affect the audit opinion.
3. **Reporting on the outcome of a financial audit** – forming an audit opinion and preparing the auditor's report is the culmination of the work done during a financial audit. Auditor's reports are covered by the following ISSAIs:
   - ISSAI 1700 *Forming an opinion and reporting on financial statements*
   - ISSAI 1701 *Communicating key audit matters in the independent auditor's report*
   - ISSAI 1705 *Modifications to the opinion in the independent auditor's report*
   - ISSAI 1706 *Emphasis of matter paragraphs and other matter paragraphs in the independent auditor's report*.

b) Various approaches of compliance audits:

1. **Combination of compliance audit and financial audit** – In an audit of financial statements, only those laws and regulations that have a direct and material effect on the financial statements are relevant. In compliance auditing any laws and regulations relevant to the subject matter may be relevant for the audit. This means that a financial audit and compliance audit may be conducted at the same time. In short, a compliance audit is related to an audit of financial statements if:
   - The opinion in the audit report includes an opinion about compliance, or
   - The financial statements are prepared in accordance with a financial reporting framework that requires the statements to reflect compliance with certain laws and regulations.
2. **Compliance audit conducted alone** – Compliance audits may also be performed separately from the audit of financial statements or any other audits. This approach may be used in a number of situations, which includes:
   - The subject matter is very sensitive
   - It is a requirement under a signed agreement or engagement letter
   - It may not be cost effective to use a combined approach.
3. **Combination of compliance audit and performance audit** – Performance auditing is an independent, objective and reliable examination of whether government undertakings, systems, operations, programs, activities or organizations are operating in accordance with the principles of economy, efficiency and/or effectiveness and whether there is room for improvement.

c) **Reasons why it is necessary to carry out audit procedures on the event which occurred on 15 April 2019:**

The event which occurred on 15 April 2019 is an example of subsequent events. The objective of conducting an audit is to form an opinion on the financial statements being audited. ISSAI 1560 *Subsequent events* provides guidance as regards the auditors' responsibilities for events that occur after the period end.

IAS 10 *Events after the reporting period* deals with the accounting treatment of events, favorable and unfavorable, occurring after the period end. These events are classified into two namely adjusting and non-adjusting events.

Management is responsible for correct accounting for such events requiring that adjusting events are adjusted in the financial statements and non-adjusting events are appropriately disclosed in the financial statements.

The auditor's concern is that he wishes to identify any events that occur after the period end which will give him evidence of conditions that existed at the period end. Some events will help the auditor confirm year-end figures especially those that are accounting estimates.

The ISSAI 1560 *Subsequent events* gives the following as the objective of the auditor as regards such events:

- To confirm whether management has correctly accounted for events after the period end in accordance with IAS 10. Where the accounting treatment by management is incorrect, the auditor will require that management makes the necessary amendments.
- To respond appropriately to facts that become known to the auditor after the auditor's report which would have caused him to amend the report had he known these facts before issuing the report.

d) Audit procedures to be taken in respect of the event which occurred on 15 April 2019:

- Discuss the matter with management and those charged with governance to obtain more details about the event.
- Determine whether the financial statements need amendment, in view of the requirements of IAS 10.
- If amendment is required, inquire how management intends to address the matter in the financial statements.

In this case, amendment will be required since the event in question is an example of an adjusting event. If management makes the necessary changes, the auditor must undertake any necessary audit procedures on the changes made, and provide a new auditor's report on the amended financial statements; otherwise the audit opinion will be modified since the misstatement is material.

SOLUTION FOUR

a) Importance of cyber-security:

Security within IT systems is a critical issue which IT audit will focus upon. Before the advent of the internet, computer systems typically had very limited connectivity outside the organisation. Therefore the emphasis of controls related to security was to restrict access both in terms of controlling access to the physical location housing IT facilities and controlling who was able to access the system through system terminals.

The huge changes in communications technologies brought about by the internet have led to computer systems no longer being closed systems. Organisations now have their IT systems connected to the internet enabling direct interaction with suppliers, service providers and customers. However, the enormous benefits of this increase in connectivity, has come at the price of security.

The largest security threat to an organization's computer system typically now comes from unauthorized access via the internet. Limiting this risk has become one of the key objectives of an entity's IT controls. Such unauthorized access can result in a range of malicious activities which collectively are termed cyber-crime.

b) Specific challenges faced by the public sector auditor:

Specific challenges which the auditor is likely to experience when gathering audit evidence during the IT audit in White Ltd, a public company include:

- Identification – there is a need to document IT systems in order to identify what testing should be conducted to provide assurance in relation to the objectives of the audit.
- Collection – the collection of evidence could be manual, such as scrutiny of data output. However, given the sheer volume of data processed by IT systems, this is unlikely to be cost effective or practicable. Accordingly IT audit is highly likely to make extensive use of computer assisted audit techniques (CAATs) to enable testing to be applied to large volumes of data and to enable the identification of items for further examination.
- Storage – there is a need to maintain sufficient audit documentation of an IT audit to ensure that another experienced IT auditor, unconnected with the audit, could replicate it. This requires audit documentation that is complete and sufficiently detailed to provide an overall understanding of an audit such that review of this documentation would enable another competent IT auditor to reach the same conclusions.

  There is need to store and retain documentation and audit evidence in an appropriate form. CAATs can automatically generate reports detailing the results of audit testing. In addition, source data can be retained in relation to a particular period or point in time by storing a database dump from an IT system to an appropriate digital medium. Storage medium such as hard disks containing data within the IT system can also be copied and retained.

c) **Quality control deficiencies in the financial audit of White Ltd for the year ended 31 December 2018:**

The requirements concerning quality control on individual audits are found in ISSAI 1220 Q*uality Control for an Audit of Financial Statements.*

The responsibility for quality control at the engagement level rests with the Lead Auditor, who also has the responsibility for the audit engagement and its performance. ISSAI 220 refers to this person as the 'Audit Engagement Partner'. In the public sector, the Auditor-General is usually the statutory auditor responsible for all audits. However, practicalities dictate the other (high-level) suitably qualified auditors may be delegated responsibility for an assignment. Such delegation should preferably be in writing and communicated for each engagement to all relevant personnel.

In the case of the financial statement audit of White Ltd, a **former Cashier**, who is unlikely to have the required knowledge, skill and experience, has been given the responsibility for quality control. This is contrary to the guidelines given by the standard.

Throughout the audit engagement, the **Engagement Partner** should remain alert, through observation and making enquiries as necessary, for evidence of non-compliance with relevant ethical requirements by members of the engagement team, such as the requirement to maintain independence. In the case of the financial statement audit of White Ltd, the Engagement Partner will be busy with government negotiations over the new mining tax regime. He will have no time to perform this responsibility of monitoring compliance with ethical requirements.

All members of the audit team have a **responsibility to inform** the SAI management about matters relating to their independence, as part of the SAI's system of quality control. In the case of the financial statement audit of White Ltd, a Junior Auditor has been given a laptop by White Ltd and the SAI management is not aware. This means the channel of communication is either non-existent or ineffective.

d) **Audit procedures that should be performed on the outstanding lodgments:**

- Trace all outstanding lodgments to pre-year-end cash book and post-year-end bank statements. Obtain explanations for any large or unusual items not cleared at the time of the audit since this could be an indicator of teeming and lading fraud.
- Examine the paying-in slips (deposit slips) to ensure that the amounts were actually paid into the bank on or before the period-end date. This is effectively a cut-off test meant to check if the cash book was kept open to take credit for remittances actually received after the year-end, thus enhancing the balance at bank and reducing receivables. Care must be taken to ensure that there is no window dressing, by auditing cut-off carefully.

SOLUTION FIVE

a) Methods of obtaining audit evidence:

i. **Inquiry** – this may range from formal written inquiries to informal oral inquiries, and directed at persons either within or outside the organisation. Inquiry is used extensively throughout the audit in addition to other audit procedures.

ii. **Observation** – this involves looking at a process or procedure being performed by others, for example:
   - The auditor's observation of inventory counting by the entity's personnel
   - The performance of control activities.

iii. **Analytical procedures** – this involves evaluating and comparing financial and/or non-financial data for plausible relationships. It also includes the investigation of identified fluctuations and relationships that are inconsistent with other relevant information or deviate significantly from predicted amounts.

b) Limitations of using analytical procedures related to program expenditure:

The Practice Note for ISSAI 1520 comments that analytical procedures related to program expenditure within the public sector are likely to include comparisons with non-financial data, because there is normally less comparable financial information to perform analytical procedures. Therefore, the evaluation of controls over the reliability of non-financial data used in the analytical procedures is important within the public sector.

When designing and performing substantive analytical procedures, either alone or in combination with tests of details, public sector auditors may consider that analytical procedures do not normally provide evidence about certain additional objectives, such as compliance with authorities.

c) Importance for the forensic auditor knowing the law:

A forensic auditor, although not a law enforcement officer, is expected to be conversant with both the civil and criminal law. As an investigator, a forensic auditor should understand the elements that constitute a crime. In this regard, in the course of carrying out an investigative audit the forensic auditors may come across activities which may border on criminal acts. The auditor will then be expected to make recommendations in a forensic investigations report. Recommendations may include advising the law enforcement agencies on an appropriate criminal charge against the suspect.

d) Additional duties when preparing and giving evidence as an expert witness:

Where a forensic investigation involves illegal acts, auditors may be required to give evidence in court as expert witnesses. The role of expert witnesses imposes **additional**

duties on the forensic auditor which should be considered when preparing and giving evidence. These include:

- Experts always owe a **duty to exercise reasonable skill and care** to those instructing them, and to comply with any relevant professional code of ethics. However, when they are instructed to give or prepare evidence for the purpose of legal proceedings, they have an **overriding duty to help the court** on matters within their expertise. This duty typically overrides any obligation to the person instructing or paying them. Experts must be independent and not solely serve the exclusive interest of those who retain them.
- Experts should **be aware of the overriding objective** that courts deal with cases justly. This includes dealing with cases proportionately, expeditiously and fairly. Experts are under an obligation to **assist the court** to enable them to deal with cases in accordance with the overriding objective. However, the overriding objective does not impose on experts any duty to act as mediators between the parties or require them to trespass on the role of the court in deciding facts.
- Experts should provide **opinions which are independent**, regardless of the pressures of litigation. In this context, **a useful test of 'independence'** is that the expert would express the same opinion if given the same instructions by an opposing party. Experts should not take it upon themselves to promote the point of view of the party instructing them or engage in the role of advocates.
- Experts should confine their opinions to matters which are **material** to the disputes between the parties and provide opinions only in relation to matters which lie within their expertise. Experts should **indicate without delay** where particular questions or issues fall outside their expertise.
- Experts should take into account all material facts before them at the time that they give their opinion. Their **reports** should set out those facts and any literature or any other material on which they have relied in forming their opinions. They should indicate if an opinion is **provisional or qualified**, or where they consider that further information is required or if, for any other reason, they are not satisfied that an opinion can be expressed finally and without qualification.
- Experts should inform those instructing them without delay of **any change** in their opinions on any material matter and the reason for it.
- Experts should be aware that any **failure by them to comply** with court orders or any excessive delay for which they are reasonable could result in the parties who instructed them being penalized in costs and even, in extreme cases, being prevented from placing the experts' evidence before the court.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 14 JUNE 2019

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

INSTRUCTIONS TO CANDIDATES

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

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

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
4. Do **NOT** write in pencil (except for graphs and diagrams).

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

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

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

8. Present legible and tidy work.

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

10. Present Value and Annuity tables are attached at the end of this paper.

11. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question 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

Lufwanyama Electricity Company is public sector Company listed on the stock exchange. It is a provider of electricity to government ministries and departments in Zambian Republic. The company's financial objectives are:

1) To increase market share by 50% in the following year.
2) To maintain its profitability.
3) To increase its share price.
4) To reduce its gearing ratio which was very high compared to industry norms.

Other objectives include provision of quality services to its clientele and timely completion of its tasks in accordance with the times schedule.

Its total revenue for the current year is expected to be K100 million. The company has branches in most parts of the country. Lufwanyama Electricity plans to increase its market share by opening branches in each province of Zambian Republic.

It's considering funding the building of the new branches through Public Private Partnerships (PPP) or foreign borrowing as a significant source of financing. Its current debt stands at K50 million. Its loans are expected to be repaid over a five ten year.

The board of Lufwanyama Electricity Company is also considering capital investment option in the utility company and evaluating the following potential investment:

Investment X

This requires an investment of K120,000,000 now. K80,000,000 is for new equipment and K40,000,000 for increases in working capital. This will be financed by the Ministry of Energy who are the major shareholders. Sales of electricity next year will be 20,000 units, variable costs will be K240,000 and electricity will be sold at K20,000 per unit.

However, due to new entrants in the energy sector and technological improvements in the region the price of electricity would decline by 40% per annum thereafter, the sales units of electricity sold would fall by 20% and variable cost by 40% per annum. Overheads attributed to the project would be K10,000,000 per annum.

In year three the project will be closed and working capital investment would be recovered. The capital equipment will be sold for 50% of its purchase costs the following year. Fixed costs include an annual charge of depreciation of K2,000,000.

The company discounts all projects at a cost of capital of 10%.

Lufwanyama Electricity Company also plans to undertake a structured approach to identify, assess and control risk that can occur during the project lifecycle in the Utility Company investment option. This will assist in the achievement of value for money in the use of resource, effective change management, and the minimization of fraud, error and waste.

Required:

(a) Briefly discuss the difference between the private and public sector risk. (4 marks)

(b) Explain how the financial risks introduced into Lufwanyama Electricity by the use of PPP might affect the achievement of its objectives. (3 marks)

(c) Discuss the business risks involved in the achievement of Lufwanyama Electricity financial objectives and how they would differ if it were a private company. (4 marks)

(d) Using Net Present Value (NPV), advise the board whether the investment should be undertaken. (16 marks)

(e) Briefly discuss the range of actions that can be undertaken to manage risk in capital investment option in the utility company. (6 marks)

(f) Explain the sources of financing to Lufwanyama Electricity and the disadvantages of relying on foreign borrowing as a significant source of government financing. (7 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section

QUESTION TWO

(a) Ngeleike district council at the just ended council meeting resolved to dismiss the finance manager for insisting that senior management at the council should adhere to the provisions of the Public Finance Act, 2018. It was discovered that public capital projects were single sourced and carried out without council resolution. It was discovered and reported by reliable sources that the company that was engaged to carry out these capital projects was a close relative to the Council Secretary. The Finance Manager has since appealed against the dismissal.

Required:

You are director in charge of local government at the Ministry of Finance; write a response to the Chairperson of Ngeleike District Council outlining the most significant aspects of the legal framework governing the Public Financial Management (PFM) in Zambia.

(14 marks)

(b) Mitete Republic has been borrowing funds to finance its infrastructure development for the past five years. Whilst this was done at the time the macroeconomic indicators were stable, the government threw caution to the wind, regarding the kind of investments they had embarked on. Many scholars predicted that the government was going to default on the loans. At the end of year five, the government was failing to support government expenditure. The government then resorted to increasing taxes and introduced new taxes mid- year. The minister of Finance for Mitete Republic is on record indicating that there was need to raise more funds to meet government expenditure.

Required:

Explain why increase in rates of taxes may not lead to increase in net tax revenue.

(6 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Manyinga Republic was ravaged by civil war which resulted in a lot of infrastructure being damaged. As a result of the civil war which destroyed infrastructure in Manyinga Republic, the Government requested for financial assistance from co-operating partners to rebuild infrastructure in all the affected districts of Manyinga Republic. Prior to the civil war, the country was highly centralized in terms of public finance system and had weak capacities in the local authorities. The co-operating partners as part of their conditions to provide funds are proposing fiscal decentralization and implementing fiscal strategy and budgeting. The Minister of finance for Manyinga Republic is on record indicating that the country will continue with a highly centralized system of public finances and preparing its budget using a rolling three year medium term expenditure framework (MTEF) and activity based budget. (ABB).

Required:

As an advisor on Public Financial Management to the government, write a paper explaining the risks associated with operating a highly centralized system of public finance and issues identified with budget preparation using ABB and MTEF frameworks.

(7 marks)

(b) 2015, the World Bank carried out a Public Expenditure Tracking Survey (PETS) evaluating three aspects of general education namely: education performance, distribution of general education, public expenditure and school level of financing in terms of equity and various education inputs (including physical facilities and quality of teachers in Lavushimanda Republic.) Scores on learning outcomes from the PETS showed that there was significant shortage of textbooks due to lack of funding and inefficiencies in supply management. The authorities of Lavushimanda complained of too many assessments and have since written to the World bank indicating that they preferred Public expenditure Financial Accountability (PEFA) that are undertaken every four years.

Required:

You are Director Finance in the Ministry of General Education; write a suitable response explaining to the authorities:

(i) The nature of a Public Expenditure Trucking Survey (PETS). (3 marks)

(ii) The circumstances in which a PETs is carried out and; (5 marks)

(iii) Five key questions that the PETS respond to and may not be covered by the traditional Public Financial Management (PFM) assessments. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) The report of the Auditor General of the Republic of **CALTON** for the financial year ending 2018 has continued to highlight weaknesses in internal controls in the government ministries. These include; flouting of procurement procedures; failure to account for stores procured; failure to undertake activities which were paid for; undelivered materials; failure to collect revenue due to government; misapplication of funds among others. The trend, particularly on misapplication of funds has not improved and this has been attributed to delays in receiving quarterly ceiling and cash rationing by the country's Ministry of finance.

During the 2018 Public Accounts Committee hearings, the Members of Parliament expressed concern on the queries that have remained unresolved and advised the executive to submit a report on the Public Financial Management reforms they intend to undertake which shall be subjected to discussion with the civil society organization.

They further noted weaknesses in the functioning of the internal governance structures such as Audit committees; Integrity committees and finance committees.

Required:

Explain to the Public Accounts Committee the Public Financial Management cycle and the three key reform processes that government will embark on in the next five years. (6 marks)

(b) Chilinda Republic is situated in the sub Saharan Africa. For the past three years the government of Chilinda has been trying to obtain a loan from the International Monetary Fund (IMF) in order for it to finance its fiscal deficit. The International Monetary Fund has declined the request citing non-consolidation of public finances and unsustainable public debt. They further indicated that the government of Chilinda has over the past five years not shown commitment to address the following: Budget Contingencies, Asset and Liability manual, Guarantees, Public Private Partnerships, Financial Sector exposure, Natural resources, environmental risks, fiscal co-ordination and institutional arrangement.

Required:

Explain to the authorities of Chilinda Republic, the first stage of fiscal management and how the specific fiscal risks identified by the IMF can be managed. (14 marks)

[Total: 20 Marks]

QUESTION FIVE

The Minister of Finance of Bushworks Republic presented a 129,020.62 million kwacha budget to parliament for the financial year ending 31 December 2019. The budget is broken down in key areas of expenditure by functional categories as follows:

Table 1: 2019 Budget for Bushworks Republic by Functional Category

Functional Categories	Amount K' Million	Percent of Budget
General Public Services	35,940.68	27.90%
Defence	6,408.90	5.00%
Public Order and Safety	4,685.94	3.60%
Economic Affairs	40,265.20	31.10%
Environmental Protection	1,232.94	1.00%
Housing and Community Amenities	1,645.62	1.30%
Health	11,524.06	8.90%
Recreation Culture and Religion	647	0.50%
Education	21,283.86	16.50%
Social Protection	5,386.42	4.20%
Grand Total	**129,020.62**	**100%**

In his speech to parliament, the Minister indicated that the country will finance 60% of its budget by borrowing on the international market through issuance of euro bonds. There were no specific viable projects that the government intended to embark on from the borrowed funds that would in turn enable the government generate revenue. The government of Bushworks has so far been struggling to meet operational costs. Economic Analysts have raised concern in the way Public Financial Management is being executed in the recent past. They have particularly raised concern on the country's continued allocation of huge resources towards General Public Services at the expense of the social sectors.

Required:

(a) Explain the differences between the environments in which public and private sector organizations operate that leads to the need for fiscal discipline of Public Financial Management. (8 marks)

(b) Advise the benefits that accrue to a nation that invests its resources in the Education and Health Sectors. (8 marks)

(c) Indicate challenges associated with the use of international borrowing especially for a government like Bushworks Republic. (4 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 \text{x} \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 \text{x} \frac{(1 + i_c)}{(1 + i_b)}$$

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

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)

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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
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15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT SOLUTIONS

SOLUTION ONE

1.**(a)**	**Briefly discuss the difference between the private and public sector risk**
	There is a difference between the Private and Public sectors in terms of the management of risk. Private sector organizations 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 minimal cost to the user. The health sector has the problem of managing capacity to meet demand and this can lead to prioritization and effectively rationing, with waiting lists as a consequence. 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.
1.(b)	**Explain how the financial risks introduced into Lufwanyama Electricity by the use of PPP might affect the achievement of its objectives.**
	The PPP would limit the longer term fiscal flexibility because the government, through MGN Health Services 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, Expert Services Plc must ensure that they are made even if their payment would hinder the achievement of Expert Services objectives. The risks arising should be reduced by ensuring that the government sets overall limits on PPP which should not be exceeded. The proposed PPP should therefore ensure that the overall limit on PPP already in place will not be exceeded.
1.(c)	**Electricity financial objectives and how they would differ if it were a**

	private company.
	Financing The costs for building and maintaining assets are met by the private sector and are repaid by the customers over the length of the license. 2) Construction The private sector holds the financial risks related to construction delays and overruns. 3) Ownership – the asset is the property of the private sector. 4) Demand risk. – The financial risk related to demand for the asset and the services it provides rests with the private sector. 5) Availability risk.- The private sector bears the financial risk related to the availability of the asset and the services it provides. 6) Maintenance.- The private sector is responsible for the long term maintenance of the asset, with payments from customers financing maintenance.
1.(d)	**Using Net Present Value (NPV), advise the board whether the investment should be undertaken**

Net Present Value: K'000

	0	1	2	3	4	Marks
Sales		400,000	192,000	92,160		2
Variable Cost		-240,000	-115,200	-55,296		2
Overheads		-8,000	-8,000	-8,000		2
Capital Investments	-80,000				40,000	2
Working capital	-40,000			40,000		2
	-120,000	152,000	68,800	68,864	40,000	2
DCF 10%	1	0.909	0.826	0.751	0.683	
	-120,000	138,168	56,828.80	51,716.80	27,320	2

NPV = K154,033,664

Comment: The NPV is positive; therefore the board should proceed to approve the project.

1.(e)	**Briefly discuss the range of actions that can be undertaken to manage risk in capital investment option in the utility company.**
	When Lufwanyama Electricity have the risks and uncertainties identified, analysed and assessed, it is necessary to examine how to prevent and/or mitigate them. Lufwanyama Electricity should have active risk management frameworks and processes in place within which project level risk management operates. To manage risk within a project there are a range of specific actions that can be undertaken, including:

	- Consult with stakeholders early to ensure requirements are properly identified - Avoid decision that are irreversible and restrictive alternative course of action - Use pilot studies to gain greater information on costs and benefits - Ensure there is flexibility designed into the project so that uncertainties can be adapted to - Take a precautionary approach against risks with catastrophic outcomes - Utilise simpler technology and methods - Consider alternative options that are less inherently risky even if they have lower expected benefits (for example a maximum approach) - Abandon the project if the risks are just too inherently great - Look for contractual arrangements to enable risk transfer Faced with risks in capital projects, one of the most common approaches to mitigation is to look to transfer risk via contractual arrangements.
1.(f)	**Explain the sources of financing the National budget and the disadvantages of relying on foreign borrowing as a significant source of government financing.**
	Sources of Financing the Budget: **Taxation:** Defined as compulsory, unrequited payments, in cash or in kind made by institutional units to government. Taxation is normally defined as Direct Taxes – e.g. company income tax, mineral royalty tax and PAYE or Indirect Tax – e.g. Value Added Tax. **Fees and Charges:** These are charged to individuals and organizations either for government provided goods and services or as a fine. They are a way of raising public revenue, but can also be used to change demand for goods and services, alter behavior and ensure that users of services pay for these services. **Grants:** Provided to government by foreign countries, multilateral institutions, or other governmental and non-governmental organizations. Such grants have conditions and restrictions or can be provided as a form of budget support without formal conditions attached. **Domestic and Foreign Borrowing:** Government can borrow from domestic or foreign sources. The most common way is to issue a bond, which is a form of debt sold to either domestic or foreign individuals and organizations. Government is required to pay interest on the borrowing and eventually repay the capital amount. **Disadvantages of relying on foreign borrowing as a significant source of government financing**. Program and project loans include financing from multilateral organizations such as World Bank, European Investment Bank and African Development Bank. They also include bilateral financing from banks such as the Export import bank of China. The requirement to pay interest and repay capital restricts future spending flexibility. Additional issues arise if borrowing is made and repayments are required in a foreign currency such as US dollars, this would result in depreciation of the local currency and may lead to significant higher repayment.

SOLUTION TWO

2a	**You are director in charge of local government at the Ministry of Finance, write a response to the Chairperson of Keleinge District Council the most significant aspects of the legal framework governing the Public Financial Management (PFM) in Zambia.**
	Legal Framework governing PFM in Zambia: • **The Constitution:** Defines the fundamental principles and established precedents according to which Zambia is governed. It contains specific provisions relating to Public finance and the budget. • **The Public Finance Act, no. 1 of 2018:** Prescribes control and management of public finances in Zambia including the control of statutory corporations. • **Local Government Act, 1991:** Defines functions of Local Authorities, this act prescribes the control and management of finances by local government entities including arrangements for audit. • **The Public Procurement Act, 2008 and Procurement Regulations, 2011:** Prescribes powers, functions and composition of the Zambia Public Procurement authority and all procuring entities. • **The National Payment System Act, 2007:** Prescribes payment system regulations. • **The Loans and Guarantees Act Cap 366 of the Laws of Zambia:** Primary legislation on debt which authorizes the Minister responsible for finance to contract loans on behalf of the Republic from external and domestic resource. • **The Public Audit act, 2016:** Prescribes duties and powers of the Auditor General and establishes the National Audit Office.
2b.	**Explain why increase in rates of taxes may not lead to increase in net tax revenue.**
	Increased rates of taxation may lead to reduced tax revenue for the following reasons: • Higher rates of taxation create greater incentives for avoidance and evasion, which reduce the amount of tax collected. • This can include "capital flight", where wealthy individuals or companies remove themselves and/or their wealth to another jurisdiction where the tax rates are lower. • Greater incidence of avoidance and evasion require the tax administration authorities to engage in greater audit and investigation activities and to design more administrative and statutory measures to counter avoidance and evasion. Such extra measures increase administration costs and therefore reduce net tax revenue. • Higher rates of taxation create disincentives for individuals and businesses to engage in those activities that are taxed because of the reduction in the net benefit they receive. This can result in a reduction in the size of the tax base, therefore less tax revenue is collected. • Where the costs of tax are passed on to the customer via an increase in prices, higher tax rates may result in reductions in demand and so reduce tax revenues.

SOLUTION THREE

3(a)	**You are advisor on Public Financial Management to the government; write a paper explaining the risks associated with operating a highly centralized system of public finance and issues identified with implementation of ABB framework.**
	Risks of Using a Centralised Public Finance System Decisions may be misunderstood while being passed on and lower position departments do not have the decision-making power, therefore it requires an efficient and well-organized top department. i. Attention and support for each department or city may not be balanced. ii. Delay of information may result in inefficiency of the government. iii. Discrepancies in the economy and information resources between the centre and other places are significant. iv. Excludes actors at the local and provincial levels from the prevailing system of governance, reducing the capacity of the central government to resolve disputes or design effective policies requiring local knowledge and expertise. Issues with Budget Preparation related to ABB and MTEF i. Programmes and activities in ABB Manyinga Manyinga Manyinga are not strategic with no clear link to outputs and outcomes expected from them ii. MTEFs have not provided reliable forward estimates of resource allocations iii. Effective , orderly and timely participation by relevant stakeholders in the budget preparation process
3(b)	**You are Director Finance in the Ministry of General Education , write a suitable response advising the authorities, the circumstances in which a PETs is carried out and key questions that the PETS responds to and may not be covered by the tradition Public Financial Management(PFM)**
	The nature of a Public Expenditure Trucking Survey (PETS) Public expenditure tracking surveys (PETS) are micro-level tools whose fundamental aim is to improve accountability and the effectiveness of service delivery. They are particularly useful when increases in public spending do not appear to be leading to improvements in the delivery of services.. **The circumstances in which a PETs is carried out and:** PETS are often combined with quantitative delivery surveys were quantitative data is collected through interviews and service provider records. PETS are particularly useful when increases in public spending do not appear to be leading to improvements in the delivery of services. This can be due to ineffective transfer of funds between different government units, through other forms of waste or corruption, or due to an inability to translate available resources into tangible improvements in the delivery of goods and services.

	Five key questions that the PETS respond to and may not be covered by the traditional Public Financial Management (PFM) assessments. Questions PETS responds to: • What the performance and quality of public service delivery is do as to improve the effectiveness of public expenditure. • Where there are inefficiencies in public expenditure systems and service delivery mechanism • Whether there are equity considerations that need to be addressed in public expenditure and service delivery across different regions , societal groups and urban/rural locations • How effective are accountability mechanisms , particularly at local delivery levels • Are special programs and expenditure allocations delivering as expected.

SOLUTION FOUR

4.(a)	**The Public financial Management cycle and the three key reform processes that government will embark on in the next five years.**
	The Public financial Management cycle **Budget Formulation:** Budgets should be formulated based on clear overall strategy and to support implementation of policies to achieve public sector goals. Annual budgets should be aligned with medium term plans, and there should be effective participation by stakeholders. **Approval:** This stage involves subjecting the budget to approval by the legislature, which is able to effectively scrutinize government plans. **Execution:** Government must ensure that there is predictability and control in budget execution. Standard procedures and processes are followed, and there is ongoing monitoring in place to enable the effective application of controls. **Evaluation:** Annual financial reports are produced, and these are subject to independent external audit and scrutiny. The reports are used in formulating future budgets. **Key PFM Reforms** **Integrated Planning and Budgeting:** To improve the development of planning and budgeting processes in order to enhance the development and service delivery impact of the public sector. **Fiscal Decentralization:** To put in place a comprehensive and transparent transfer and reporting mechanism, and to deepen the policy of fiscal decentralization as a means of improving service delivery by local authorities. **Cash Management:** To enhance financial management systems and standards in order to promote good financial management and corporate governance practices in the public servic
4.(b)	**Explain to the authorities of Chilinda Republic the first stage of fiscal management and how the specific fiscal risks identified by the IMF can be managed.**
	The first stage of fiscal risk management is identification, disclosure and analysis **Management of Risks** **Budget Contingencies:** Budget should have allocation for contingencies which can be called upon should a risk crystalize. It is essential that this contingency budget is held for genuine responses to risks and as such there should be transparent access criteria and regular in year reporting on its utilization. **Asset and Liability Management** All liabilities and significant asset acquisitions of disposals are authorized by law, and that the risks surrounding the balance sheet are disclosed and managed according to a published strategy. Other mitigation techniques include hedging and insurance instruments, and overall ceilings on liabilities to ensure that repayments remain affordable within a range of plausible public finance positions. **Guarantees** All guarantees, their beneficiaries, the gross exposure created by them and their

	probability of being recalled, published at least annually. The maximum value of guarantees should also be authorized by law. Other Mitigation techniques include direct control such as central authorization and overall ceilings, indirect tools such as the charging of risk related fees and risk transfer mechanisms like requirements for the deposit collateral. Provision can also be made through appropriation of expected guarantee calls or the creating of guarantee funds. **Public Private Partnership** Ensuring that there are overall limits on PPP commitments that all PPPs are subject to cost benefit analysis to ensure that they provide better value for money than alternative delivery mechanisms, and effective risk transfer to the private sector. **Financial Sector Exposure** Quantification and disclosure of explicit support to the financial sector on at least an annual basis, with regular assessment of financial sector stability based on plausible range of macroeconomic and financial market scenarios. Other techniques include regulation to increase the ability of banks to absorb losses and the transfer of risk through a requirement on banks to fund deposit insurance scheme. **Natural Resources** Tax base diversification so that there is reduced dependence on a single source of revenue and the use of hedging instruments to transfer risks. Provision can also be made through the use of stabilization funds, into which revenue are paid and released to government over time to reduce the impact of output and /or price fluctuations. **Environmental Risks** Minimizing human resource in areas of high risk, regulation through use of environmental standards and building codes, and mandating insurance. Provision can also be made by creating natural disaster fund**.** Other measures include improvement in irrigation, diversification of the economy to reduce reliance on agriculture and investment in electricity generation. **Fiscal Co-ordination** Mitigation include reduction in the size of the state-owned enterprise sector to reduce fiscal impact and explicit no bail out clauses on state owned enterprises and subnational governments. **Institutional arrangements to improve risk management** Institutional arrangement can support this through: An established risk management policy: This should outline the conditions under which specific fiscal risks can be taken on by government Clearly defined accountabilities: This should indicate the responsibilities of individual entities and accountability for identifying, analyzing, responding to and monitoring specific risks; A central oversight body: To allow the assessment of aggregate risk exposure and the identification of interrelationships and systemic risks Central Controls over major risk: Of particular importance when there are specific caps and limits on exposures or provision is undertaken. In such cases decisions to take on risks should be assessed as part of the budget process.

END OF SOLUTIONS