CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.1: FINANCIAL ACCOUNTING

MONDAY 9 DECEMBER 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.

<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 Wilima Wilima made an allowance for irrecoverable debts. Which basic accounting concept is being followed in the above transaction?

A. Accrual
B. Consistency
C. Going concern
D . Prudence

(2 marks)

1.2 The statement of financial position reported a beginning balance of K212,212 in Accounts Receivable and an ending balance of K51,515. Credit Sales of K323,232 were made during the year. Using this information, how much cash was collected from customers?

A. K483,929
B. K162,535
C. K323,232
D. K59,505

(2 marks)

1.3 On 1 January 2018, net assets of a business were K590,127. On 31 December,2018net assets were K750,712. During the year, the owner introduced no additional capital, and the profit for the year was K270,721. How much were drawings during the year?

A. K431, 306
B. K479,991
C. K110,136
D. None of the above

(2 marks)

1.4 Which of the following statements regarding the statement of cash flows is false?

A. The statement of cash flow separates cash inflow and outflows into three major categories: operating, investing and financing.

B. The total increase or decrease in cash shown on the statement of cash flows must agree with the bottom line (net income or net loss) reported on the income statement.

C. The ending cash balance shown on the statement of cash flows must agree with the amount shown on the statement of financial position at the end of the same period.

D. The statement of cash flows covers a period of time.

(2 marks)

1.5 Langalanga pays fire insurance annually in advance on 1 June each year. The entity's financial year end is 28 February.

	Insurance paid
01/06/2016	900,000.00
01/06/2017	1,500,000.00

From the above record of insurance payments you are required to calculate the charge to the statement of profit or loss for the financial year to 28 February 2018.

A K2,400,000.00
B K1,500,000.00
C K1,350,000.00
D K1,200,000.00

(2 marks)

1.6 Luangwa Ltd has opening trade payables of K24,183 and closing trade payables of K34,655. Purchases for the period totaled K254,192 (K31,590 relating to cash purchases).Total payments recorded in the payables ledger for the period were:

A. K212,130
B. K264,664
C. K233,074
D. K243,720

(2 marks)

1.7 Chanda and Chenda are in partnership. Their Capital account balances are K760,000 and K640,000respectively.The partnership agreement details the appropriation of partnership profits as follows:

	Chanda		Chenda
Annual salary	185,000		K240,000
Interest on capital	10%	10%	
Share of residual profit	40%	60%	

If the profit before appropriation was K1,265,000

What would be Chanda's entitlement per partnership agreement?

A. K280,000
B. K465,000
C. K760,000
D. K541,000

(2 marks)

1.8 What types of expenses are deducted from Gross Profit?

A. Capital Expenses
B. Production Expenses
C. Operating Expenses
D. All of the given options

(2 marks)

1.9 A non-current asset which had cost K4,900,000 on which depreciation of K2,600,000 has been charged so far is now being surrendered in part exchange for a new asset costing K7,500,000. The agreement between the company and supplier of the new non-current asset is a trade-in value of K3,500,000.

What figure would be included in the statement of profit or loss?

A. K1,200,000 loss on disposal
B. K1,200,000 profit on disposal
C. K3,500,000 profit on disposal
D. K3,500,000 loss on disposal

(2 marks)

1.10 Sangwapo auto spares operating as SAS incurred a business expense of K24,000. The amount was only entered in the cashbook, on the receipts side.

Which of the following journal entries is required to correct the error? (You are to assume a suspense account has been used to clear the imbalance.)

A. Dr Bank K48,000 Cr Suspense K24,000
Cr Expense K24,000

B. Dr Suspense K24,000 Cr Bank K48,000

Dr Expense K24,000

C. Dr Expense K24,000 Cr Bank K24,000
D. Dr Suspense K24,000 Cr Bank K24,000 (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.

Kawesha Ltd. has an authorised share capital of K7,000,000 comprising 20,000,000 ordinary shares of 25 ngwee each and K2,000,000 of 6% preference shares of K1 each. The following trial balance was extracted from the books at 31 December, 2018.

	K	K
Ordinary share capital		4,000,000
6% preference share capital		1,000,000
4 % Loan Notes		1,250,000
General reserve		400,000
Retained profits at 1 January 2018		630,000
Freehold premises at cost	6,100,000	
Plant and machinery at Cost	3,200,000	
Motor vehicles at Cost	300,000	
Freehold premises Accum Depreciation		410,000
Plant and machinery Accum Depreciation		720,000
Motor vehicles Accum depreciation		170,000
Inventory at 31 December 2017	700,000	
Trade receivables and Trade payables	420,000	280,000
Purchases/Sales	6,000,000	12,050,000
Returns	200,000	80,000
Goodwill	300,000	
Cash at Bank		750,000
Long term investments	600,000	
Administrative expenses	2,050,000	
Distribution expenses	1,603,000	
Loan Note Interest paid	25,000	
Investment income		18,000
Bank interest paid	80,000	
Ordinary dividends paid	120,000	
Preference dividends paid	60,000	
	21,758,000	**21,758,000**

Additional information

1. On 29 December 2018 Kawesha bought goods costing K90,000. The purchase was not accounted for by 31 December 2018.

2. The physical stock count showed closing inventories of K945,000. This figure includes goods bought on 29 December 2018 as they had been received at the time of the physical stock take.

3. The long-term investments, owned since 2013, earn an annual fixed rate of interest of 5% per annum.

4. Depreciation is to be charged as follows:

   a. Freehold premises at 4% on cost. Depreciation of freehold premises should be included as an administration expense.
   b. Plant and machinery at 10% on cost. Depreciation of plant and machinery should be included as part of cost of sales
   c. Motor vehicles at 20% on reducing balance method. Depreciation of motor vehicles should be included as distribution expenses.

5. There are accrued administration expenses of K185,000 and prepaid distribution expenses of K17,000 at 31 December 2018.

6. The charge for corporation tax for the year ended 31 December 2018 is estimated at K900,000.

7. The second half year's loan note interest is yet to be paid. The directors propose to pay a further dividend to the ordinary shareholders of 2 ngwee per share but this has not been approved by the board at the year end.

Required:

(a) Prepare Kawesha Plc's statement of profit or loss for the year ended 31 December 2018. (12 marks)

(b) Prepare Kawesha Plc's statement of financial position 31 December 2018. (8 marks)

[Total: 20 Marks]

QUESTION THREE

GD received the following Bank Statement for the month of May 2019 from their bank:

MAY	Description		DR	CR	
			K	K	K
01/05	Balance	b/d			130,405
02/05	500250		32,000		98,405
05/05	500251		12,800		85,605
07/05	500255		18,650		66,955
09/05	Chiteu		25,955		92,910
11/05	Himoonga			31,428	124,338
14/05	Akapelwa			17,465	141,803
15/05	DDACC-electricity bills		8,452		133,351
18/05	Chipoya	DC		15,705	149,056
21/05	Interest	DC		10,000	159,056
24/05	Bank Charges	DD	945		158,111
27/05	Insurance premium	SO	3,240		154,871
28/05	500257		16,450		138,421
30/05	Yasini	DC		28,985	167, 406
31/05	Akapelwa	RD	17,465		149, 941

Note: DD =Direct Debit, DC = Direct Credit, SO = Standing Order, RD = Refer to Drawer, and DR after the balance indicates an overdrawn balance.

Additional Information:

(i) The following is a list of unpresented cheques:

500248	45,228
500263	13,565
500267	7,813

(ii) The following is a list of deposits not credited:

Tongai	32,478
Dube	25,496

(iii) The entry on the 9 May was an error made by the bank.

(iv) The cashier recorded the payment on 5 May as K18,200 instead of K12,800.

(v) The bank made an error on the bank statement for the preceding month, crediting the account with K15,135. The amount has not been reversed.

Required:

(a) Prepare the Updated Cash Book, given that before taking into account the information provided in the Bank Statement, the balance was K96,186. (8 marks)

(b) Prepare a Bank Reconciliation Statement as at 31 May 2019, starting with the balance stated on the bank statement. (5 marks)

(c) Explain why partners may be entitled to a salary, interest on capital and charge interest on drawings. Include in each explanation the relevant entries to be made in the accounts. (7 marks)

[Total: 20 Marks]

QUESTION FOUR

Gift runs a hardware business which includes electrical products. He wishes to see how each of these departments is doing in terms of profitability. The following information relate to these two departments:

	Hardware	**Electrical**
	K	**K**
Revenue	485,000	120,000
Purchases	184,200	42,800
Direct expenses	4,105	7,926
Opening inventory	75,000	27,560

Administration expenses (incurred commonly) consisted of the following:

Rent	14,600
Insurance	9,475
Electricity	4,750
Salaries	11,050

Additional Information:

1) Gift has 6 employees: 4 are in the Hardware section and 2 in the electrical section. Each of them is paid a salary of K2,500 plus 1% of sales.

2) The amounts paid for purchases include the value of items taken home for personal use: hardware, K805 and electrical K426.

3) Direct expenses are mainly customs and excise duties plus import VAT on purchases only.

4) Expenses need to be adjusted for as follows: rent in arrears of K1,400 and insurance prepaid of K1,425. These expenses and electricity are shared between the two departments in the ratio of 3:1.

5) Gift has a 6% loan note of K78,000. The loan was spent on acquiring furniture, fittings and motor vehicles. The interest, which is allocated in the proportion of cost of the non-current assets, has not been paid yet and must be accrued.

6) Closing inventory as at 30 June 2019 was K35,000 and K18,420 for Hardware and Electrical respectively.

7) Gift has the following non-current assets:

	Motor Vehicles	Furniture Fittings
	K	K
Cost	60,000	18,000
Accumulated depreciation 1.7.2018	30,000	12,000

Depreciation is charged at the rate of 20% on reducing balance method on Motors vehicles and at 15% straight line on furniture and fittings. Depreciation of furniture and fitting is shared equally between the two departments, whereas that for motor vehicles is charged to the profit and loss in the proportion of sales values.

Required:

(a) Prepare a Columnar Departmental Statement of Profit or Loss for the year ended 30 June 2019. (15 marks)

(b) Outline the advantages and disadvantages of using the accruals basis of accounting by public sector organisations. (5 marks)

[Total:20 Marks]

QUESTION FIVE

(a) Mkandawire has a shop which sells Wild Venture tools. On 1 January 2018, it had trade inventory which cost K173,450. During the 9 months to 30 September 2018, the business purchased goods from suppliers costing K1,064,200. Sales during the same period were K1,540,000. The shop makes a gross profit of 25% on cost for every Wild Venture tool it sells. On 30 September 2018 there was a fire explosion in the shop which completely destroyed most of the Inventory in it. Only a small amount of Inventory known to have cost K3,500 was not damaged and still fit for sale.

Required:

(i) Calculate the gross profit. (2 marks)

(ii) Calculate the amount of Inventory lost in the fire. (4 marks)

(b) Fox & Hound Stables provides horses for sale, but the economy has been bad for several years and horse sales have been slow. Because of the recent financial setback, Christy the owner has not had a qualified Accountant. At the end of the year, an imbalance in the Trial Balance was revealed which resulted in the creation of a suspense account with a credit balance of K10,040.

Investigations revealed the following errors:

(i) A sale of a colt on credit for K10,000 had been omitted from the Sales Account;

(ii) Delivery costs of K2,400 on a new hay equipment had been recorded as a revenue expense.

(iii) Cash discount of K1,500 on paying a seed supplier Cowboy Jim, had been taken, even though the payment was made outside the time limit;

(iv) Inventory of stock feed at the end of the period of K2,400 had been ignored;

(v) A purchase of equipment spares of K3,500 had been recorded in the Purchases Account as K8,500;

(vi) The purchase returns day book included a sales credit note for K2,300 which had been entered correctly in the account of the customer concerned, but included with purchase return in the nominal ledger.

Required:

(a) Show how the journal entries required to correct each of the above items would be written. (7 marks)

(b) Open a suspense account and show the corrections to be made. (2 marks)

(c) Before discovery of the errors, Fox & Hound's gross profit was calculated at K357,500 and the profit for the year at K185,000. Calculate the revised gross profit and profit for the year figures after the correction of the errors.

(5 marks)

[Total 20 Marks]

QUESTION SIX

(a) Mwaiseni is a VAT registered trader. During the year to December 31, 2018, he bought from a wholesaler groceries worth K810 VAT exclusive. The wholesaler charges a sales tax at the prescribed rate of 16.5%. Mwaiseni charged its customers on sale of the groceries a price of K1,200 VAT exclusive. Mwaiseni also charged its customers VAT on sales at 16.5%.

Required:

(i) Compute the VAT inclusive price that Mwaiseni charged its customers on the groceries. (2 marks)

(ii) Prepare the journal entries to record the sale of groceries in Mwaiseni's general ledger. (2 marks)

(iii) Calculate the input tax and output tax on Mwaiseni's purchase and sale of the groceries. (2 marks)

(iv) How much VAT does Mwaiseni pay to the government on the groceries transactions above? (1 mark)

(b) IAS 38 Intangible Assets, prescribes the accounting treatment of intangible assets including the recognition criteria for development costs.

Required:

Explain how the research and development expenditures under the following projects must be accounted for:

Project A (SWASCO energy reticulation project)
The project was expected to cost a total of K400,000 to complete development. R&D of K250,000 has already been incurred to date. The expected total revenue is K2,000,000 once completed – probably late 2021. The client already placed advance orders after seeing demonstrations of its capabilities earlier in the year. (4 marks)

Project B (New Herbicide)
The project is expected to cost a total of K3,000,000 to complete development. Expected total revenue is K10,000,000 once completed – probably late 2021. Customers have already placed advance orders for the drug after seeing demonstrations of its capabilities. Although the project has demonstrated that the drug is a viable product, and has the intention to finish developing it, the completion date is currently uncertain because external funding will have to be obtained before the development work can be completed. (4 marks)

(c) Morgan buys machines, which he repairs and then sells. He has the following information about a machine which is being repaired at 30 November: Cost of machine

K17,130; cost of repairs to date K2,465; cost of further repairs before sale K1,720. Expected sale proceeds K21,160.

Required:

With reference to IAS 2 – Inventories, discuss the Inventory value of the machine in Morgan's statement of financial position at 30 November. (5 marks)

[Total: 20 marks]

END OF PAPER

SOLUTION ONE

NO.	Answer	Explanation
1.	D	Making an allowance for irrecoverable debts follows the prudence concept. It is all about recognising a potential loss.
2.	A	Opening balance 212,212 add: purchases 323,232 533,444 Less: closing balance 51,515 Money received **483,929**
3.	C	01.01.2018 Net assets = 590, 127 Profit for the year = 270,721 31.12.2018 Net assets = 860, 848 Less: Drawings **110,136** 750, 712
4.	B	The total increase or decrease in cash shown on the statement of cash flows must agree with the bottom line (net income or net loss) reported on the income statement
5.	C	March to May 2017 = 900,000 ÷ 12 x 3 = 225,000 June 2017 to February 2018 = 1,500,000 ÷ 12 x 9 = 1,125,000 **1,350,000**
6.	C	Trade payables K24,183 Add: Purchases (less cash purchases K31,590) K222,602 Less closing trade payables K34,655 Total payments **K212,130**
7.	C	profit before appropriation 1,265,000 less: salaries (185,000 + 240,000) 425,000 less: Interest on capitals (76,000 +64,000) 140,000 700,000 700,000 X 40% 280,000 Salary 185,000 Interest on capital 76,000 Chanda's entitlement **541,000**
8.	C	
9.	C	Cost K4,900,000 Less: Depreciation K2,600,000 Net book value K2,300,000 Less: Trade-in value K3,500,000 Profit on disposal **K1,200,000**
10.	B	The expense was debited in the cashbook instead of crediting. To correct the error the amount must be doubled and credited to cashbook Dr Suspense Account K24,000 Dr Expense Account K24,000 Cr Cashbook K48,000

SOLUTION TWO

Kawesha Ltd

Statement of Profit or Loss for the year ended 31 December 2018

Sales (12,050,000 -200,000)	11,850,000
Cost of sales w1	(6,085,000)
Gross profit	5,765,000
Distribution cots (1,603,000+185,000+(300,000-170,000)@20%)	(1,814,000)
Admin expenses (2,050,-17,000+(6,100,000)@4%	(2,277,000)
Operating profit	1,674,000
Investment income	18,000
Finance costs (80,000+25,000)+ (6/12 x 1,250,000)@4%	(130,000)
Profit before tax	1,562,000
Tax	(900,000)
Profit for the year	662,000

W1 Cost of sales

Opening inventory	700,000
Purchases (6,000,000+90,000)	6,090,000
Returns outwards	(80,000)
Closing inventory	(945,000)
Depreciation 3,200,000@10%	320,000
	6,085,000

Kawesha Ltd
Statement of financial position as at 31 December 2018

Assets		
Non-current assets		
Property, plant and equipment		7,710,000
Goodwill		300,000
Long-term investments		600,000
		8,610,000
Current assets		
Inventory	945,000	
Trade receivables	420,000	
Prepayment	17,000	
		1,382,000
		9,992,000
Equity		
Share capital		
Ordinary shares		4,000,000
Preference shares		1,000,000
Reserves		
General		400,000
Retained earnings (630,000+662,000-120,000-60,000)		1,112,000
		6,512,000
Non-current liabilities		
4% loan notes		1,250,000
Current liabilities		
Trade payables (280,000+90,000)	370,000	
Tax	900,000	
Accruals (185,000+25,000)	210,000	
Bank overdraft	750,000	
		2,230,000
Total equity and liabilities		9,992,000

SOLUTION THREE

(a) UPDATED CASHBOOK (Bank Account)

Balance b/d		96 186			
Interest	DC	10 000	Trade Receiv	RD cheq	17 465

Chipoya	DC	15 705	Insurance	SO		3 240
Yasini	DC	28 985	Bank charges			945
Trade Payable (500251)		5 400	Electricity		DDUCC	8 452
			Balance c/d			126 174
		156 276				156 276

(b) BANK RECONCILIATION STATEMENT

	K	K
Balance per Bank Statement		149 941
Add: Deposits not credited		
Tongai		32 478
Dude		25 496
		207 915
Less: *Unpresented Cheques*		
Direct Credit to Reversal	15 135	
500248	45 228	
500263	13 565	
500267	7 813	
		(81 741)
Balance per Cash Book		126 174

(c) It is usual practice for partners to draw up a Profit Sharing Agreement (PSA). In it the partners determine the salary for a partner who will be involved in managing the business. The salary is the compensation for the personal time that partner will spend to grow the business.

Partners also realize they would have invested the cash in some interest-earning bank account elsewhere, and so they agree to earn interest on capital from the business. The interest is the compensation for the forfeited bank interest, if the cash were taken to a bank.

Conversely, partners are expected to draw cash against profits earned and shared only at the end of the year. Some partners will draw cash earlier in the year before the profits are made by the business. In the PSA, partners may agree that interest shall be charged on drawings to return to the business the profits lost during the time the cash was not in the business because the partner made drawings too early.

From the explanations above it can be seen that the salary and interest on capital are an expense on the business and an earning to the partner. Therefore, these are debited to the Appropriation Account and credited to the Current Accounts of the partners. The interest on drawings is a charge against the partners earnings in the current account, and a benefit to the business. Therefore, interest on drawings is debited to Current Accounts and credited to the Appropriation Account.

SOLUTION FOUR

		Hardware	Electrical
		K	K
Revenue	A	485 000	120 000
Opening inventory		75 000	27 560
Purchases		184 200	42 800
Direct expenses		4 105	7 926
		263 305	78 286
Closing inventory		(35 000)	(18 420)
Drawings		(805)	(426)
	B	227 500	59 440
Gross Profit	C = A – B	257 500	60,560
EXPENSES			
Salaries		(29 200)	(7 400)
Rent		(12 000)	(4 000)
Insurance		(6 038)	(2 012)
Electricity		(3 562)	(1 188)
Depreciation -Motor Veh		(4 810)	(1 190)
Depreciation Furnt & -Fitt		(1 350)	(1 350)
Interest expense		(3 600)	(1 080)
	D	(60 560)	(18 220)
Gross Profit	C – D	196 940	42 340

Workings:

1. Salaries {(1% x K 480 000) +2500} x 4 Salaries {(1% x K 120 000) +2500} x 2	(29 200)	(7 400)
2. Rent {K 14 600 +1 400} x ¾, ¼	(12 000)	(4 000)
3. Electricity{K 4750} x ¾, ¼	(3562)	(1188)

4.	Insurance {K 9 475 – 1 425} x ¾, ¼	(6 038)	(2 012)
5.	Depreciation -Motor Veh		
	{20% x 30 000} x 485/605, 120/605	(4 810)	(1 190)
	Depreciation Furnt & -Fitt		
	{15% x K 18 000} x ½ , ½	(1 350)	(1 350)
6.	Interest expense		
	{6% x 78 000} x 60/78, 18/78	(3 600)	(1 080)

b) *Advantages of public sector organisations using the accruals basis of accounting*:

1. It is possible to calculate profit for the public sector organisation because revenue and expenses are matched in their reality

2. Transactions are recorded when they occur rather than when cash is paid or received and this supports completeness of recording events

3. The true measure of goods in economic terms is determined and so it is possible to determine how well the organisation is doing in more aspects than mere cash availability and utilization.

Disadvantages of the public sector using the accruals basis of accounting

1. It poses a challenge of adjusting correctly for some activities, e.g. allowances for receivables.
2. It requires more knowledgeable personnel to apply accounting standards to transactions
3. It is based on historical costs, which become irrelevant in times of inflation.
4. It is not easy for users of financial statements to understand, and has potential for manipulation of financial information to present a seeming better picture.

SOLUTION FIVE

(A)

(i)	Sales (125%)	K1,540,000
	Gross profit (25%)	308,000
	Cost of goods sold (100%)	**K1,232,000**

	Opening Inventory	173,450
	Add: Purchases	1,064,200
		1,237,650
	Less: Closing Inventory	(3,500)
	Equals cost of goods sold & Goods lost	1,234,150
(ii)	Cost of goods sold and lost	1,234,150
	Cost of goods sold	1,232,000
	Cost of goods lost	2,150

b)

(i)	DR Suspense A/C	10,000	
	CR Sales		10,000
(ii)	DR Plant	2,400	
	CR Delivery Cost		2,400
(iii)	DR Cash discount received	1,500	
	CR Cowboy Jim		1,500
(iv)	DR Inventory of stock feed	2,400	
	CR Stock feed Expense		2,400
(v)	DR Suspense A/C	5,000	
	CR Purchases		5,000
(vi)	DR Purchase returns	2,300	
	Sales returns	2,300	
	CR Suspense A/C		4,600

Suspense A/C

(b)	(i)	Sales	K10,000 (½)	b/d	K10,400
	(iv)	Purchases	5,000 (½)	(vi) Purchases/ Sales returns	4,600
			K 15,000		**K15,000**

(c)	Gross profit originally reported	K357,500	
	Sales omitted	10,000	
	Plant costs wrongly allocated	2,400	
	Incorrect recording of purchases	5,000	
	Sales credit note wrongly allocated	(4,600)	
	Adjusted gross profit	K370,300	
	Profit for the year originally reported	185,000	
	Adjustments to gross profit (370,300 – 357,500)		12,800
	Cash discount incorrectly taken		(1,500)
	Inventory of stock feed		2,400
	Adjusted profit for the year		K198,700

SOLUTION SIX

(A) (i) Price = P = K1,200, rate of sales tax = r% = 16.5%

Cost price for the consumer – $P(1 + r/_{100})$

$= \quad 1{,}200(1 + {}^{16.5}/_{100}$

$= \quad 1{,}200 + {}^{19{,}800}/_{100} = K1{,}398$

(ii) Input tax $= {}^{16.5}/_{100} \times 810 = 133.65$

Output tax $= \frac{16.5}{100} \times 1{,}200 = 198$

(iii) VAT = Output tax - Input tax

$198 - 133.65 = 64.35$

(iv) Journal entry

DR Cash or Trade receivables	1,398	
CR Sales (1,398 – 64.35)	1,135.65	
VAT payable		64.35

(B) (i) Project A meets the criteria in IAS 38 for development expenditure to be recognized as an asset. These are as follows:

P - Probable - Customers have already placed advance orders for the final product after development

I - Intention to complete – SWASCO intends to finish development of the product by late 2021

R - Availability of adequate technical, financial and other resources – the project seems to be in the late stages of development.

A - Ability to use or sell the Intangible asset – customers have placed advance orders – Ability to use asset is clear.

T - Technical feasibility of completing asset.

E - Ability to measure reliably the Expenditure – SWASCO has reliable estimation of costs to date and to complete.

The costs of K250,000 incurred to date should be capitalized as an Intangible asset in the statement of financial position.
Once the project is ready for use, the Intangible asset should be amortised over its useful life.
(ii) The project meets most of the criteria discussed above which would enable the costs to be carried forward; however it fails on the availability of adequate resources to complete the project. As such, the costs cannot be capitalized and should be expensed to the statement of profit or loss. Once funding is obtained the situation can then be reassessed and future costs may be capitalized.

(C) IAS 2 – Inventories should be measured at the lower of cost on net realizable value.

Cost – all costs incurred in bringing the inventories to their present location and condition.

Net realizable value – estimated selling price.
less the estimated cost of completion and the estimated costs necessary to make the sale.

Using the data in the question, cost of K17,130 and K2,465 have been incurred,
So the cost of the machine is K19,595.
The estimated selling price is K21,160 and estimated costs to be incurred are K1,720.
So the net realizable value is K19,440. As this is lower than cost, the machine is valued at K19,440.

CA 1.2: BUSINESS STATISTICS

WEDNESDAY 11 DECEMBER 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 Which measure represents the difference between the largest measurement and smallest measurement in a given data set

A. Variance
B. Quartile deviation
C. Absolute deviation
D. Range

(2 marks)

1.2 The price of a specific electrical item in a random sample of 40 retail establishment over the Zambia is shown below.

Price (K)	90 -100	100 – 110	110 – 120	120 – 130	130 – 140	140 - 150
No. of stores	3	2	26	3	2	4

Find the standard deviation.

A. 107.31
B. 11515.32
C. 52.75
D. 14010 (2 marks)

For question 1.3 and 1.4

An electrical specialised organization sets different prices for a particular solar inventor in ten different regions of the country. The following data summarizes the number of units sold (y) and the accompanying price in Zambian kwacha (x)

$\sum x = 950 \sum x^2 = 98500 \sum y = 3800 \sum y^2 = 1477800 \sum xy = 353200$

1.3 Calculate the average units of the solar invertors sold in the ten provinces.

A. 95
B. 98.5
C. 9.5
D. 380 (2 marks)

1.4 Find the Pearson's correlation coefficient, r, between cost and units of inventors sold.

A. -0.94
B. 0.218
C. -0.467
D. 0.5 (2 marks)

1.5 A manager believed the number of large earth–moving devices sold follow the distribution:

Number	Probability
0	0.1
1	0.6
2	0.2
3	0.1

Find the mean of the distribution.

A. 1.3
B. 2.3
C. 0.61
D. 0.78 (2 marks)

1.6 The probabilities that a student will receive an A, B, C or D grade during a test are 0.35, 0.25, 0.16, and 0.24 respectively. What is the probability that a student will receive at least a C grade?

A. 0.16
B. 0.76
C. 0.60
D. 0.40 (2 marks)

1.7 The top 5% of applicants (as measured by GPA scores) will receive scholarships. If GPA is normally distributed with mean 400 and variance 100. By how much does your GPA score qualify for a scholarship?

A. 400.5
B. 409.5
C. 383.5
D. 416.5 (2 marks)

1.8 Given the following frequency distribution for a random sample of measurements,

Class limits	Frequency (f)
3 – 5	2
6 – 8	6
9 – 11	7

The formula for the median is

$Med = L + \frac{(.5n-F)}{f} \times C$, the sample median for the grouped data is

A. 8.00
B. 7.83
C. 6.92
D. 15 (2 marks)

1.9 Which of the following is not a measure of central location of a set of numerical data?
A. Mean
B. Median
C. Mode
D. Variance (2 marks)

1.10 A mining consultancy firm conducts aptitude test for applicants for a job. A sample of 25 candidates' results was collected and were as shown in the table below

Marks	2	4	6	8	10
Number of students	6	4	7	5	3

What is the mean mark obtained by the candidates?
A. 30
B. 25
C. 5.6
D. 140 (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.

QUESTION TWO- (COMPULSORY)

(a) The sales manager of ABC Ltd considers that the modal value of this salesmen's weekly journeys would provide him with the most useful average for budgeting purposes. The following distribution is given:

Kilometers travelled	**Number of salesmen**
100 and < 200	4
200 and < 300	6
300 and < 400	3
400 and < 500	9
500 and < 600	3

You are required to calculate the median value and to advise the sales manager of the consequences of using this result. (6 marks)

(b) Light House Electrical Co. Ltd specialise in the batch production of switches used in complex electronic equipment. It has been asked to tender for producing a switch for use in desk – top computers. An examination of its records shows that it has had ten production runs on similar types of switches over the past two years. Using cost data, the total cost of these ten runs, when updated are:

Switch code no.	**Production (X) in thousands**	**Total costs (Y) (K 10)**
E1	10	117
E2	17	212
E3	15	153
E4	39	411
E5	22	257
E6	26	299
E7	21	221
E8	16	181
E9	16	186
E10	12	130

$$\sum x = 194, \sum y = 2167, \ \sum xy = 48599. \ \sum x^2 = 4392, \ \sum y^2 = 539511$$

(i) Obtain the least square straight line of best fit $(Y = a + bx)$ to the data. (8 marks)

(ii) Interpret your answer in terms of fixed and variable cost of production. (6 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Let X denote the number of times a housewife visits a grocery store in a one – week period. Assume that the table below is the probability distribution of X. Find the expected value of X.

x	0	1	2	3
$P(x)$	0.2	0.3	0.4	0.1

(3 marks)

(b) The quarterly production figures for a large manufacturing company are given below. Use four – point moving averages to calculate the trend values**.**

Total production (thousands units)					
	2000	2001	2002	2003	2004
1 quarter		150	146	138	132
2quarter		152	148	138	
3 quarter	136	128	129	120	
4quarter	146	143	138	136	

(17 marks)

[Total: Marks 20]

QUESTION FOUR

(a) The Zambia Institute of Chartered Accountants (ZiCA) orders paper supplies from one of three Bookshops, B_1, B_2, and B_3. Orders are to be placed on two successive days, one order per day. Thus (B_2, B_3) might denote that Bookshop B_2 gets the order on the first day and Bookshop B_3 gets it on the second day.

(i) List the possible outcomes in this experiment of ordering paper on two successive days. (3 marks)

(ii) Assume the Bookshops are selected at random each day, assign a probability to each outcome. (2 marks)

(iii) Let A denote the event that the same Bookshop gets both orders and B the event that Bookshop B_2gets at least one order. Find $P(A)$ and $P(B)$. (4 marks)

(b) The data below shows the percentage returns of ten largest Zambian general stock mutual funds over a period of one year which ended in December 2018.

26.1, 16.5, 15.6, 25.6, 14.6, 13.4, 21.3, 19.5, 20.9, 24.0

For the above sample data, find the:

(i) Mean (2 marks)

(ii) Standard deviation (3 marks)

(iii) Median (2 marks)

(iv) Range (1 mark)

(v) Inter-quartile range (3 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) Amazing Décor a hospitality company offer event and hospitality services to various clients across Zambia. Material costs vary with respect to location of events. The cost of materials (in thousands Kwacha) for events held in Lusaka and Kitwe for the year 2017 were as follows:

Material	**Cost in Lusaka**	**Cost in Kitwe**
Rose flower	80	100
Linen	90	70
Ribbons	30	20
Flower Pots	130	120
Under Plates	50	90
Total	**380**	**400**

(i) Show the material cost of events in Lusaka in a Pie Chart. (8 Marks)

(ii) Construct a Bar Chart for the cost of material in Kitwe. (4 Marks)

(b) An Organisation offer salaries to employees based on academic achievement attained. The average salaries of employees of the Organisation is K15,000 with a variance of 12,250,000. The salaries are normally distributed.

Required:

Calculate:

(i) The proportion of employees who earn more than K13,000 (3 marks)

(ii) The proportion of employees who earn between K10,000 and K18,000.

(5 marks)

[Total: 20 Marks]

QUESTION SIX

(a) A mining contractor estimates the probabilities for the number of days required to complete a mine site surveying project as follows: let x be the number of days taken to complete the project.

Time (days) (x)	1	2	3	4	5
Probability $P(x)$	0.05	0.2	0.35	0.30	0.10

(i) What is the probability that a randomly chosen project will take less than 3 days to complete? (2 marks)

(ii) Find the average time of completion of the surveying project. (3 marks)

(iii) The variance of time required to complete a project. (3 marks)

(iv) The contractor's project cost is made up of two parts a fixed cost of K20,000 plus K2,000 for each day taken to complete the project. Find the mean of the total project cost. (3 marks)

(b) Mr. Sakala was analyzing whether purchasing items with an ATM would help him save money than if he uses cash to purchase goods. He believes that the cash he spends daily is strongly linked to the amount of cash he withdrew at his previous visit to the ATM. To assess this Mr. Sakala deliberately conducts an experiment of varying the amounts of cash he withdraws. He records the cash withdrawn x (kwacha) for each visit to the ATM and the time in hours y, until his next visit to the ATM. The results obtained for $n = 10$ withdraws were analyzed using a regression model with the following summary out comes:

$$y = -34.3 + 2.04x$$

$$\sum x = 850, \quad \sum y = 1391, \quad \sum x^2 = 92500, \quad \sum y^2 = 285621, \quad \sum xy = 159540,$$

(i) Calculate the amount withdrawn if the time taken to visit the ATM from previous withdraw was 50 hours. (3 marks)

(ii) Calculate the coefficient of correction and comment on the relationship between cash withdrawn and time taken to spend the cash. (4 marks)

(iii) Calculate the coefficient of determination. (2 marks)

[Total: 20 marks]

END OF PAPER

CA1.2 SUGGESTED SOLUTIONS

SOLUTION ONE

1.1 D;

The measure which represent the difference between the largest measure and smallest measurement in a given data set is called the Range

1.2 A;

Class interval	x	f	xf	x^2f
90 – 100	95	3	285	27075
100 – 110	105	2	210	22050
110 – 120	115	26	2990	343850
120 – 130	125	3	375	46875
130 – 140	135	2	270	36450
140 – 150	145	4	580	84100
Total		40	4710	560400

$$S = \sqrt{\frac{560400 - \frac{(4710)^2}{40}}{39}} = \sqrt{\frac{5797.5}{39}} \approx 12.19$$

1.3 D Average $\frac{1}{n}\sum x = \frac{3800}{10} = 380$

1.4 C

$$\boldsymbol{r = \frac{n\sum xy - \sum x \sum y}{\sqrt{[10\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}}$$

$$= \frac{10(353200) - (950)(3800)}{\sqrt{[100(98500) - 950^2][10(1477800) - 3800^2]}}$$

$$= \boldsymbol{\frac{-78000}{\sqrt{82500 \times 338000}} = \frac{-78000}{166988.02} = -0.467}$$

The correct answer is C

1.5 A; Mean of the probability distribution is the expected value

$$\sum xP(x) = 0(0.1) + \quad 1(0.6) + 2(0.2) + 3(0.1) = 1.3$$

1.6 B;

$P(at\ least\ Grade\ C) = P(Grade\ A) + P(Grade\ B) + P(Grade\ C) = 0.35 + 0.25 + 0.16$

$= 0.76$

1.7 D;

$$P(Z \geq z) = 0.05$$

$1.65 = \frac{X-400}{10}$, $1.65(10) = x - 400$, Therefore $X = 416.5$. Thus GPA score should be 416.5 or higher to qualify for a scholarship.

1.8 **B**;

Class limit	Frequency f	Cumulative frequency F
3 – 5	2	2
6 – 8	6	8
9 – 11	7	15

$$Median = 6 + \frac{(7.5 - 2)}{6} \times 2 \approx 7.83$$

1.9 **D.** the position of the median is given by $\frac{n+1}{2}$th which is $\frac{25+1}{2} = 13th$ since n is an odd number.

1.10 **B**

2	4	6	8	10
6	4	7	5	3

Mean = $\frac{\sum fx}{n} = \frac{2\times6+4\times4+6\times7+8\times5+10\times3}{25} = 5.6$

Correct answer is C.

SOLUTION TWO

(a)

(i)

Kilometres	Number of salesman	Cum. frequency
100 and < 200	4	4
200 and < 300	6	10
300 and < 400	3	13
400 and < 500	9	22
500 and < 600	3	25

$$Med = L + \frac{(.5N - F_{i-1})}{f_i} \times C$$

Position of median $= 0.5(25) = 12.5$

$$Med = 300 + \frac{(12.5 - 10)}{3} \times 100 \cong 383.33$$

(ii) The median may be adequate for budgeting purposes, but this would depend on the pattern of the distribution monthly order values. Usually the arithmetic mean is preferable to the median because it can be multiplied by the total number of salesmen to give a budgeted figure for the total value of all orders during the budget period.

(b)

(i) $b = \frac{(10)(48599)-(194)(2169)}{(10)(4392)-(194)^2} = \frac{485990-420398}{43920-37636} = \frac{65592}{6284} \approx 10.438$

$$a = \bar{y} - b\bar{x} = \frac{2167}{10} - (10.43793762)\left(\frac{194}{10}\right)$$

$$a \approx 14.20$$

$$\hat{y} = 14.204 + 10.438x$$

(iii) The fixed costs are 14.204 and the variable costs per 100 switches are 10.438. Since the fixed cost is positive the it plans a part in the interpretation of the fitted line meaning that when variable cost is zero the cost incurred is 14.204. While for a unit change in production, the cost increases by 10.438.

SOLUTION THREE

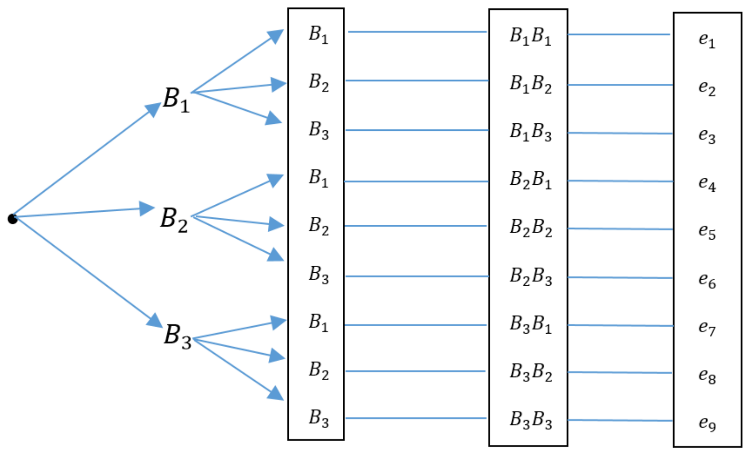
(a) $\mu = \sum xP(x) = 0(0.2) + 1(0.3) + 2(0.4) + 3(0.1) = 0 + 0.3 + 0.8 + 0.3 = 1.4$

(b)

Year	Code (t)	y	4 Moving total (MT)	4 CM
2001	1			
	2			
	3	136		
	4	146	584	
2002	5	150	576	145
	6	152	573	143.625
	7	128	569	142.75
	8	143	565	141.75
2003	9	146	566	141.375
	10	148	561	140.875
	11	129	553	139.25
	12	138	543	137
2004	13	138	534	134.625
	14	138	532	133.25
	15	120	526	132.25
	16	136		
2004	17	132		
	18			
	19			

SOLUTION FOUR

a.



i. Sample space (S):

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

ii. Each outcome has the probability of $\frac{1}{9}$.

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

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

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

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

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

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

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

b)

(i)

$$\boldsymbol{Mean\ (x)} = \frac{\mathbf{1}}{\boldsymbol{n}}\sum_{\boldsymbol{i=1}}^{\mathbf{10}} \boldsymbol{x} = \frac{\mathbf{1}}{\mathbf{10}}(26.1 + 16.5 + 15.6 + 25.6 + 14.6 + 13.4 + 21.3 + 19.5 + 20.9 + \ 24.0)$$

$$= \frac{1}{10}(197.5) = 19.75$$

(ii)

$$\boldsymbol{Variance\ (x)} = \frac{\mathbf{1}}{\boldsymbol{n-1}}\sum_{\boldsymbol{i=1}}^{\mathbf{10}} (\boldsymbol{x} - \overline{\boldsymbol{x}})^{\mathbf{2}}$$

$$= \frac{\mathbf{1}}{\mathbf{10-1}}[((26.1 - 19.75)^2 + (16.5 - 19.75)^2 + (15.6 - 19.75)^2 + (25.6 - 19.75)^2$$
$$+ (14.6 - 19.75)^2 + (13.4 - 19.75)^2 + (21.3 - 19.75)^2 + (19.5 - 19.75)^2$$
$$+ (20.9 - 19.75)^2 + (24.0 - 19.75)^2] = \frac{1}{9}(191.025) = 21.22$$

Therefore; $\mathrm{SD(X)} = \sqrt{21.22} = 4.607$

$$\mathrm{Md} = \frac{X_{\left(\frac{n}{2}\right)} + X_{\left(\frac{n+1}{2}\right)}}{2} = \frac{19.5 + 20.9}{2} = 20.2$$

(iii)

$$\mathrm{Range} = 26.1 - 13.4 = 12.7$$

(iv) $\mathrm{Inter-quartile\ range} = \frac{(Q_3 - Q_1)}{2}$

$$Q_1 = 10 \text{ x} \frac{1}{4} = 2.5 \approx \text{3rd value} = 15.6$$

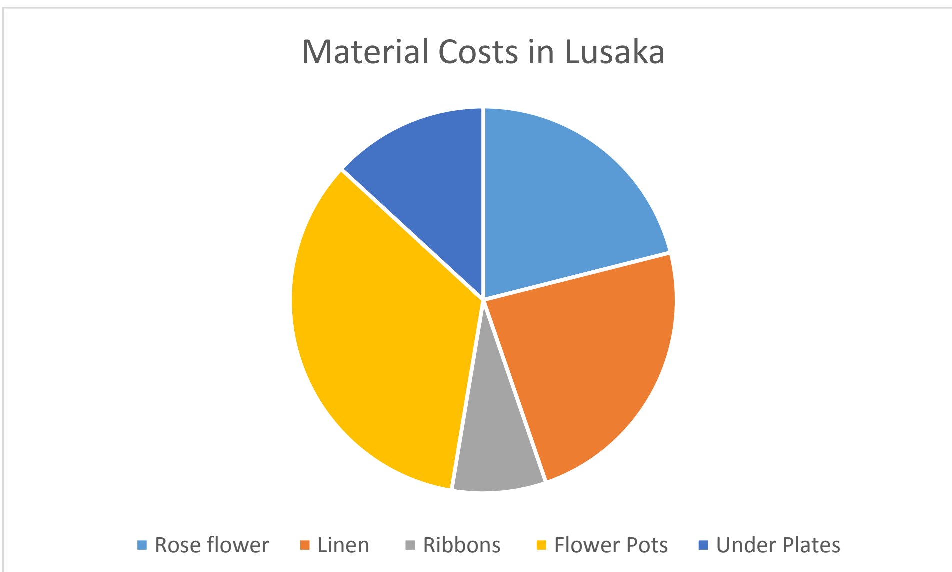
$$Q_3 = 10 \text{ x} \frac{3}{4} = 7.5 \approx \text{8th value} = 24$$

Therefore; $\mathrm{Inter-quartile\ range} = \frac{(24 - 15.6)}{2} = 4.2$

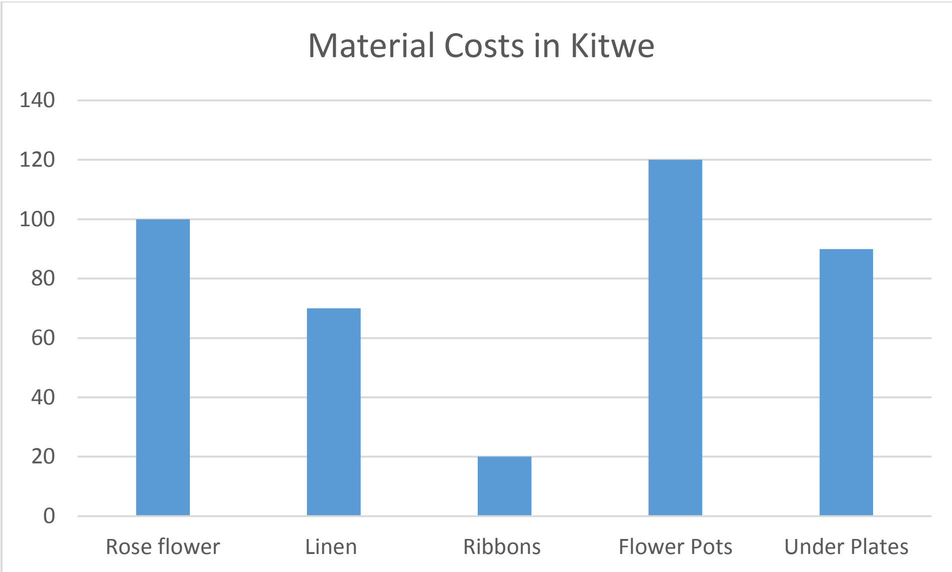
SOLUTION FOUR

a)

Material	**Cost in Lusaka**	**Degrees**
Rose flower	80	75.79
Linen	90	85.26
Ribbons	30	28.42
Flower Pots	130	123.16
Under Plates	50	47.37
Total	**380**	**360**



b)



b)

i). $Z = \frac{X-15000}{3500}$

$$P\left[\frac{X-15000}{3500} > \frac{13000-15000}{3500}\right]$$
$$= P[Z > -0.57]$$
$$= 1 - 0.2206$$
$$= 0.7794$$

ii).

$$P\left[\frac{X-15000}{3500} < \frac{X-15000}{3500} < \frac{X-18000}{3500}\right]$$
$$= P\left[\frac{10000-15000}{3500} < \frac{X-15000}{3500} < \frac{18000-15000}{3500}\right]$$
$$P[-1.43 < Z < 0.86]$$
$$P[Z > -1.43) - P[Z > 0.86]$$
$$= (1 - 0.0764) - 0.1949$$
$$= 0.7282$$

SOLUTION SIX

Time (days) (x)	1	2	3	4	5
Probability $P(x)$	0.05	0.2	0.35	0.30	0.10

a. i. $P(x < 3) = 0.05 + 0.2 = 0.25$

ii. average=$E(X) = \sum xP(x)$

$$1(0.05) + 2(0.2) + 3(0.35) + 4(0.3) + 5(0.1)$$
$$= 0.05 + 0.4 + 1.05 + 1.2 + 0.5$$
$$= 3.2$$

.iii.variance$V(X) = E(X^2) - [E(X)]^2$

$$E(X^2) = 1^2(0.05) + 2^2(0.2) + 3^2(0.35) + 4^2(0.30) + 5^2(0.1)$$
$$= 11.3$$
$$V(X) = 11.3 - 3.2^2$$
$$= 1.06$$

.iv.$y = \text{a fixed cost of K20,000, plus K2,000 for each day}$

$$y = 20000 + 2000x$$

Expected value of y is

Mean = $E(Y) = E(20000 + 2000x)$

$$= 20000 + 2000E(x)$$

$$=20000 + 2000(3.2)$$

$$= K26400$$

b.

i. $y = -34.3 + 2.04x$

$$50 = -34.3 + 2.04x$$

$$2.04x = 50 + 34.3$$

$$2.04x = 84.3$$

$$x = \frac{84.3}{2.04} = 41.32$$

ii.

$$\sum x = 850, \quad \sum y = 1391, \quad \sum x^2 = 92500, \quad \sum y^2 = 285621, \quad \sum xy = 159540,$$

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

$$= \frac{10(159540) - (850)(1391)}{\sqrt{[10(92500) - 850^2][10(285621) - 1391^2]}}$$

$$\boldsymbol{= \frac{413050}{\sqrt{202500 \times 921329}} = \frac{413050}{431936.4797} = 0.956}$$

.iii. Coefficient of determination

$$R^2 = (r)^2 = (0.956)^2 = 0.914$$

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.3: BUSINESS ECONOMICS

TUESDAY 10 DECEMBER 2019

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

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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 Economics can best be described as the study of:

A. How to increase the level of productive resources so that there is maximum output in society
B. How to use productive resources to maximize income level
C. How people, institutions and society make choices under conditions of uncertainty
D. How business structures influence the allocation of income among firms.

(2 marks)

1.2 DVD players and DVDs are:

A. Complementary goods
B. Substitutes goods
C. Independent goods
D. Inferior goods (2 marks)

1.3 Yesterday John supplied 400 trays of eggs at K30 each. Today John supplies the same quantity at K15 each. Based on this evidence, John has experienced a (an)…………………..

A. Decrease in supply
B. Increase in supply
C. Decrease in quantity supplied
D. Increase in quantity supplied (2 marks)

1.4 If the demand curve for good X is downward sloping, an increase in the price will result in…………

A. An increase in the demand of good X
B. A decrease in the demand of good X
C. A larger quantity demanded of good X
D. A smaller quantity demanded of good X (2 marks)

1.5 Which of the following statements is **TRUE** about a kinked demand curve theory for an oligopolistic firm?

A. An oligopolistic firm has a relatively large advertising expenditures
B. An oligopolistic firm fails to invest in Research and Development
C. An oligopolistic firm infrequently changes its price
D. An oligopolistic firm engages in excessive brand proliferation

(2 marks)

1.6 If the Marginal Propensity to Save (MPS) is 0.20, the value of the spending multiplier is…………….

A. 2
B. 5
C. 8
D. 10 (2 marks)

1.7 A rightward shift in the demand curve for a normal good can be caused by:

1. Increase in buyers' income
2. Decrease in buyers' income
3. A reduction in the price of a good
4. An increase in the price of a substitute good and consumption

Which of the following combination is CORRECT?

A. 1 and 2
B. 2 and 3
C. 1 and 4
D. 1, 3 and 4 (2 marks)

1.8 If the price elasticity of demand for tobacco is -0.65, what should be the change in price to achieve a 25% reduction in tobacco usage?

A. 16.25%
B. 38.5%
C. 25.1%
D. 24.4% (2 marks)

1.9 If a Zambian can purchase US$40,000 for K90,000 the kwacha rate of exchange for a United States Dollar (US$) is……………………….

A) K0.44
B) K2.00
C) K2.25
D) K10.00 (2 marks)

1.10 If **m** equals the maximum number of Kwachas that can be created for a single kwacha of excess reserves and **R** equals the required reserve ratio, then for the banking system:
A) m = R – 1
B) R = m/1
C) R = m -1
D) M = 1/R (2 marks)

[Total: 20 Marks]

SECTION B

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

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

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

On 18 April 2018, Prime TV at 19:30 hours carried a news item, where tomato traders (marketeers) complained of high order prices of tomatoes being supported by the farmers. One trader interviewed said, "a few weeks ago we were buying a box of tomatoes at K50, but now the same box is going at K350. We are not making any profits, yet this is where we earn our livelihood from. *Boma iyanganepo* (government must intervene)".

Required:

(a) Define the term supply in economics. (2 marks)

(b) Outline any five (5) factors that influence the supply of tomatoes in Zambia.

(10 marks)

(c) Explain how the increase in the order price for tomatoes lead to the movement along, or a shift in the supply curve for tomatoes? (4 marks)

(d) Marketeers are calling on the government to set maximum price of a box of tomatoes charged by farmers. Explain the possible consequences of this move.

(4 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

From October 2017 to early February 2018, Lusaka and a few surrounding areas were hit by the cholera pandemic which claimed close to 100 lives out of almost 4,000 reported cases. In light of this, the government, through the ministry of health embarked on massive cleaning and hygiene sensitisation. A number of business firms responded by producing and supplying cleaning agents to help stop the spread of cholera. One such product is liquid hand wash, a differentiated product.

Required:

(a) Outline any three (3) forms of product differentiation. (6 marks)

(b) Use diagrams to illustrate abnormal profits in the short run of firms producing liquid hand wash. (6 marks)

(c) Explain what the long run equilibrium position is likely to be. (4 marks)

(d) Outline any two(2) positive effects and any two(2) negative effects of the cleaning exercise. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

"…as inflation is currently projected to remain around the lower bound of the 6-8%, target range over the next eight quarters, the Monetary policy committee of the bank of Zambia, at its meeting on February 19-20, 2018, further reduced the statutory reserve ratio by 300 points from 8.0% to 5.0%..." February 21, 2018, bank of Zambia statement.

Required:

(a) What is statutory reserve requirement ratio? (2 marks)

(b) Explain the implication of this adjustment on the economy. (4 marks)

(c) Describe two monetary measures of credit control by central bank. (4 marks)

(d) Apart from monetary policy implementation, explain any two (2) functions of the central bank. (4 marks)

(e) Outline any three (3) factors that affect the general level of interest rates over time. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

According to the International Labour Organisation (ILO) data estimates in 2017, the estimated youth unemployment rate in Zambia was at 13.8% (www.statistica.com). However, this estimate is disputed by many unemployed youth similarly, Afrobarometer did a survey and concluded that, "official definitions of unemployment/employment do not reveal the true extent of unemployment, particularly if one is interested in the participation rate in the labour force (www.afrobarometer.org).

Required:

(a) Explain how unemployment rate is measured in Zambia. (2 marks)

(b) Explain any four (4) negative consequences of unemployment in Zambia. (8 marks)

(c) Briefly describe **any three (3)** types of unemployment in Zambia. (6 marks)

(d) Some people argue that a higher minimum wage can lead to increased unemployment. Do you agree or disagree? Explain your answer. (4 marks)

[Total: 20 Marks]

QUESTION SIX

On 12 October 2017 former President Jacob Zuma of South Africa led a powerful delegation in Zambia whose main aim was to deepen political, social, security and economic relations. On 14 October 2017, the Zambia-South Africa Business Forum was held at which it was revealed that trade between Zambia and South African then stood at $3.8 billion. Further, a trade imbalance of over $2 billion in favour of South Africa was revealed. This mainly arose because South Africa's erection of barriers in the form of entry pre-requisites and failure to recognize the Zambia Bureau of Standards.

Required:

(a) Explain what is meant by the term 'trade imbalance'. (4 marks)

(b) Explain any five (5) barriers to trade that countries erect in order to reduce imports.

(5 marks)

(c) Explain any five (5) arguments in favour of the use of barriers to trade. (5 marks)

(d) Explain the 'J' curve effect for the current account when an open economy devalues its currency. (3 marks)

(e) Explain the role that the Zambia Bureau of Standards play in facilitating trade.

(3 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.3 SUGGESTED SOLUTIONS

SOLUTION ONE

SECTION A: MULTIPLE CHOICE

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

SOLUTION TWO

a) Supply refers to the quantity of a good that sellers are able and willing to sell at a given price.

b) Determinants of supply for tomatoes

- The costs of inputs used to produce tomatoes.
- The prices of related goods in supply.
- Changes in technology used in tomato production.
- Changes in weather patterns.
- Expectations of changes in prices.
- Indirect taxes and subsidies
- Natural disasters.

c) An increase in the order price of tomatoes leads to a movement along the supply curve. Own price of a good is not a supply curve shifter.

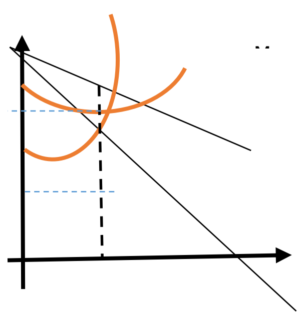
d) A ceiling price is a maximum price set for a good. It is generally set to protect consumers against increases in prices or as an anti-inflationary economic policy.
Ceiling prices can lead to misallocation of resources; farmers will reduce output of tomatoes as a result of this measure, because tomatoes will now be relatively less profitable than products, not subject to price controls.

SOLUTION THREE

a) Forms of product differentiation

- *Physical product differentiation*, where firms use size, design, colour, shape, performance, and features to make their products different. For example, consumer electronics can easily be physically differentiated.
- *Marketing differentiation*, where firms try to differentiate their product by distinctive packaging and other promotional techniques. For example, breakfast cereals can easily be differentiated through packaging.
- *Human capital differentiation*, where the firm creates differences through the skill of its employees, the level of training received, distinctive uniforms, and so on.
- *Differentiation through distribution*, including distribution via mail order or through internet shopping, such as Amazon.com, which differentiates itself from traditional bookstores by selling online.
- Firms operating under monopolistic competition usually have to engage in advertising. Firms are often in fierce competition with other (local) firms offering a similar product or service, and may need to advertise on a local basis, to let customers know their differences. Common methods of advertising for these firms are through local press and radio, local cinema, posters, leaflets and special promotions.

b) Short-run Equilibrium Position



In the short run the firms producing hand wash are making **supernormal/abnormal profits** indicated by the rectangle area. This is because the product is on high demand to help deal with the outbreak of cholera. At the moment, the firms are enjoying abnormal profits, because their average revenue is greater than their average costs.

c) Long Run Equilibrium Position

The firm still produces where marginal cost and marginal revenue are equal; however, the demand curve (and AR) has shifted as other firms producing liquid hand wash have entered the market and increased competition. The firm no longer sells its goods above average cost and can no longer claim an economic profit

A firm making profits in the short run will break even in the long run because demand will decrease and average total cost will increase. This means in the long run, a monopolistically competitive firm will make zero economic profit.

d) Effects of the cleaning exercise

Negative

- Loss of livelihoods: a number of vendors operating on the streets lost their livelihoods, and hence, the ability to support their families.
- Increased street thefts: since a number of vendors were removed from the streets, they engaged in petty thieving as a way of survival.

Positive

- The cleaning exercise led to a decrease in the cases of cholera and other related diseases.
- The cleaning exercise also created room for parking space which had been previously occupied by vendors.
- The clean Central Business District(CBD) is conducive for domestic and international investment.

SOLUTION FOUR

a) **The reserve ratio**

The reserve requirement ratio is the minimum amount of money that banks must hold in reserve, usually given as a percentage of customer deposits.

b) **The implication of the adjustment**

- Lowering the reserve requirement will make it possible for banks to lend more money which would increase money supply and stimulate economic growth.
- Banks will also be able to lend more money at lower interest rates, this can in turn, cause the value of the currency to decrease.

c) **Monetary measures of credit control**

- ***Interest Rate Control***: If the price of money rises –i.e. if interest rates rise generally –then the demand for money can be expected to fall. A government or the central bank may therefore seek to control the supply of money through its ability to influence the level of interest rates. This is the main method of controlling the supply of money used by central banks in advanced economies.
- ***Control over Banking Ratios***: A central bank may seek to influence the value of the bank credit multiplier by changing the value of the commercial banks cash reserve ratio. For example, to reduce bank lending and hence the rate of growth of the money supply, the central bank could increase the minimum ratio of bank cash reserves to deposits.
- ***Direct Controls over Banks***: The government, acting through the central bank, may require the commercial banks to keep their customer lending within stated limits, or to discourage certain forms of lending, or forbid lending for stated purposes.

d) **Functions of the central bank**

- ***Banker to the banking system–***As banker to the banks, it keeps the accounts of the retail banks themselves. It facilitates the process of *clearing* the daily balances resulting from all the transactions undertaken each day by the customers of the banks when they receive and make payment using their bank accounts.
- ***Lender of last resort***–the central bank is uniquely placed to lend to other banks in the financial system because it manages the government's accounts, and can call upon the government to print more money in an emergency situation.
- ***Regulation and supervision of the banking system***–it is responsible for the stability and integrity of the institutions which make up the banking system.

e) **interest rate variations**

  - uncertainty about future inflation: when investors are uncertain about future interest rates, they would require higher interest yield to persuade themto take the risk of investment.
  - changes in the level of government borrowing: when the demand for credit increases, interest rates will go up.
  - monetary policy: the central bank controls the level of interest rates in order to control inflation.

- interest rates abroad: interest rates in one country may be influenced by external forces, such as interest rates in other countries and expectations about the exchange rate.

SOLUTION FIVE

a) unemployment rate in an economy is calculated as

$$\frac{\text{Number of unemployed}}{\text{Total workforce}} \times 100\%$$

b) consequences of unemployment

- Loss of output; if labour is unemployed; the economy is not producing as much output as it could. Thus, total national income is less than it could be because economic resources are not fully being used.
- Loss of human capital; if there is unemployment; the unemployed labor will gradually lose its skills, because skills can only be maintained by working.
- Increasing inequalities in the distribution of income; unemployed people earn less than employed people. And so when unemployment is increasing, the poor get poorer.
- Social costs; unemployment brings social problems of personal suffering and distress and possibly also increases in crime, such as theft and vandalism.
- Increased burden of welfare payments; this can have a major impact on government fiscal policy, because governments will have to pay out more in state benefits, while collecting less through tax revenue.

c) Types of unemployment

- **Frictional Unemployment:** Frictional unemployment is when workers leave their old jobs but haven't yet found new ones. Most of the time workers leave voluntarily, either because they need to move, or they've saved up enough money to allow them to look for a better job.
  Frictional unemployment also occurs when students are looking for that first job, or when mothers are returning to the workforce. It also happens when workers are fired or, in some cases, laid off due to business-specific reasons, such as a plant closure.
  Frictional unemployment is short-term and a natural part of the job search process.
- **Structural Unemployment:** This type of unemployment arises through a change in demand which switches production from one kind of work to another, it occurs through permanent or long-term changes in the structure of the economy. In other words, structural unemployment is long-term unemployment caused by the decline of certain industries and changes in production process.
- **Cyclical Unemployment:** This type of unemployment arises from the business cycle. Keynes was mainly concerned with this type of unemployment. Such unemployment occurs due to deficiency of demand or purchasing power and is also called demand-deficient unemployment, meaning, it affects all industries at the same time. Since this type of unemployment is due to downturn in economic activity, it can, therefore, be expected to occur and disappear at fairly regular intervals.

- **Seasonal Unemployment:** This type of unemployment occurs due to seasonal pattern of demand and the consequent seasonal nature of activities in some industries. In some industries like entertainment, tourism and soft drink, the demand for goods and services fluctuates seasonally. As a result these industries are fully staffed in the peak season but many workers are laid off in the off-season.
- **Classical unemployment**: Classical unemployment is also known as "real wage unemployment" or "induced unemployment." It's when wages are higher than the laws of supply and demand would normally dictate. It usually occurs in three situations:

1. Unions negotiate higher salaries and benefits.
2. Long-term contracts set a wage that has become too high due to a recession.
3. The government sets a minimum wage that's too high.

The result is that companies must pay more per employee, so they can afford fewer employees. Those that are laid off are victims of classical unemployment.

d) I agree, because, an increase in the minimum wage, increases the cost of production. As a result, employers will lay-off workers, or choose not hire new and/or additional workers, thereby, increasing the level of unemployment.

SOLUTION SIX

a) A trade imbalance is a situation where trade is not balanced between the trading partners. It occurs when trade favours one trading partner at the expense of another. In the given scenario above, trade is not balanced because Zambia imports more than what it exports to South Africa. Conversely, South Africa exports more to Zambia than what it imports from Zambia.

b) The five barriers that could be erected include:
   - Tariffs: A tax on imports
   - Quotas: A limit on the quantity of a good that may be imported in a given time period
   - Embargoes: A law that bars trade with another country
   - Exchange controls: A restriction on access to foreign exchange
   - Technical administrative barriers e.g. delays in clearing goods at borders
   - Health or quality standards requirement
   - Voluntary export restraints

c) The arguments in favour of the use of barriers to trade include:
   - To protect infant industries
   - To keep the kwacha at home
   - To protect home employment
   - To ensure national defense
   - To engineer comparative advantage
   - To reduce vulnerability to a cut off in foreign supplies
   - To help diversify the economy

d) Ordinarily, we would expect that a devaluation would improve the current account position of an open economy by making imports relatively more expensive and making exports relatively cheaper. However, in the short-run, a devaluation can worsen the current account. This is because it takes time for import and export quantities to adjust. For example, in the short-run there may still be a large value of imports contracted for but these are now more expensive in terms of domestic currency following devaluation. In the long-run, of course, prices and quantities will adjust and the current account will improve.

e) The role of the Zambia Bureau of Standards in facilitating trade is to provide an assurance to the buyers that the goods being sold/exported meet the set quality standards.

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.4: COMMERCIAL AND CORPORATE LAW

FRIDAY 13 DECEMBER 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: 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 What are the two main general sources of law?

A. Courts and Judges

B. The President and his Ministers

C. Courts and Parliament

D. Customs and International Customary law

(2 marks)

1.2 The call for bids during an auction sale is an example of…….

A. An acceptance

B. An offer

C. A consideration

D. An invitation to treat

(2 marks)

1.3 The frustration of a contract caused by legislation of a new law is an example of frustration by ……………….

A. Physical impossibility

B. Failure to perform the contract

C. Supervening illegality

D. Destruction of subject matter

(2 marks)

1.4 Which of the following is **not** a right of an unpaid seller?

A. Right to lien on good, if they are still in his possession

B. Right of stoppage in transit, if the buyer becomes insolvent

C. Right to reject the goods, if undelivered to the buyer

D. Right of resale in certain circumstances

(2 marks)

1.5 Which of the following parties enjoys first priority of payment when bankruptcy occurs?

A. Employees and wages

B. General unsecured creditors

C. Secured creditors

D. Preferred creditors

(2 marks)

1.6 Choose from the following capital which does not fall under share capital.

A. Nominal capital

B. Reserve capital

C. Subscribed capital

D. Majority capital

(2 marks)

1.7 Which one of the following persons is not an officer of the company?

A. Managing Director

B. Secretary

C. Auditor

D. An agent

(2 marks)

1.8 Which one of the following dismissals represents a situation in which an employee was mistreated by the employer so that the employee was forced to resign?

A. Wrongful dismissal
B. Summary dismissal
C. Unfair dismissal
D. Constructive dismissal

(2 marks)

1.9 Which one of the following is **"untrue"** regardingan agent?

A. An agent can enter into a contract on behalf of a principal without naming him.
B. An agent can enforce the principal's contract if the third party fails to perform.
C. An agent can bind the principal in circumstances were its hard to get further instructions.
D. An agent can more so be appointed via emergency or ratification.

(2 marks)

1.10 Critically analyse the following sources of law and determine which one you may eliminate.

A. Case Law
B. Constitution
C. Acts of Parliament
D. Statute

(2 marks)

Total:20 Marks]

SECTION B

Question two in this section is compulsory and must be attempted.

Attempt any three (3) questions out of the remaining four (4).

<u>QUESTION TWO</u> – (Compulsory question)

Zambezi Ltd is a company registered under the Companies Act CAP 388 of the Laws of Zambia and having its registered office at Lusaka. The company manufactures and distributes various kinds of cosmetics through its agents dotted across the country.

In Luwingu, it operates through an agent named Mr. Simwinga who has been its agent for the past four years. Mr. Simwinga operates from Plot 100, Luwingu which is being leased from a minor and paid for by Mr. Simwinga's principal Zambezi Ltd. The company has paid rentals for the next six months in advance.

It has come to the attention of the company that for the past two months, Mr. Simwinga has been creating and selling his own product called 'Kashika' which is a mixture of Zambezi Ltd's products and local herbs. Customers with sensitive skin have reacted to this 'Kashika' product and the story of such reactions has gone so viral that it has drastically reduced Zambezi Ltd's sales to record low.

In order to salvage the situation, shareholders had a meeting last week and resolved among other things that the company be wound up and a liquidator be appointed. It was further resolved that, Mr. Simwinga be sued for loss of business among other claims. The shareholders believe that when hearing this case against Mr. Simwinga, the court will interpret the law of agency using the golden rule of interpretation.

The company's Chief Executive Officer has approached you seeking an explanation on the following issues arising from the above case.

Required:

(a) Explain to him the type of meeting shareholders should hold. (4 marks)

(b) Explain the powers of a liquidator that creditors will appoint. (4 marks)

(c) Explain what is meant by the Golden Rule of interpretation? (4 marks)

(d) Explain whether the landlord to Plot 100, Luwingu above, can avoid the lease agreement. (4 marks)

(e) Explain how he can terminate Mr. Simwinga's agency relationship? (4 marks)

[Total:20 Marks]

QUESTION THREE

Five minutes before lunch time, the Company Secretary went on the stage to clarify the issues raised by the shareholders in the meeting. His presentation was as follows:

'The term director has different meanings depending on a number of factors such as how one assumes the position of director expressly or impliedly. In ***Re Forest of Dean Coal Mining Company 1878,*** Lord Jessel MR said the following about directors:

'*It does not matter much what you call them so long as you understand what their true position is, which is that they are really commercial men managing a trading concern for the benefit of themselvesand all other shareholdersin it*'.

As the Company Secretary was still on the floor, the timekeeper announced that it was lunch time and the meeting was adjourned to 14:00 hours. The shareholders were more confused than ever before and concluded that directors were dictators imposed on the company. They did not mind this, but of crucial importance to them was to know two things: to whom the directors were answerable and how they could be removed from office. Two shareholders have approached you during the lunch break.

Required:

Explain to shareholders the following:

(a) Ways by which a director may vacate his/her office. (10 marks)

(b) Any five (5) fiduciary duties of directors. (10 marks)

[Total:20 Marks]

QUESTION FOUR

The Justice Minister for the Republic of Zambia notes that the legislative power to make laws in the country is entrusted in Parliament by the Constitution but he is unaware of how the said law is made. His office prepared the Political Parties Bill for its adoption in the next session of Parliament. Before its presentation in Parliament, the Minister has assigned the bill to your desk for some clarification on the legislative process.

In addition to the above assignment, you have also been assigned to explain the remedies available to a buyer of goods in case of breach. You have established that in Zambia, the law that governs the sale of goods is the Sale of Goods Act of England, 1893. It provides a framework for the relationship between the buyer and seller; covers the rights and duties of the parties; and provides remedies in case of breach.

Required:

(a) Explain to the Minister the stages a bill undergoes until it becomes law. (12 marks)

(b) Explain the remedies that are available for the buyer in case of breach. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

Bwalya, a fisherman, worked together with Mulenga a fish monger. Bwalya did the actual fishing, while Mulenga sold the fish in a nearby market, and the two friends shared the proceeds at the end of each transaction. The village headman is registering businesses under his control. The two friends are required to explain in detail the nature of their association under the headings ***Partners by Estoppel/General Partners***. They do not know to which of the two types of partnership they really belong, and have approached you for advice. They want to know the differences between the two.

Bwalya and Mulenga have also held that some companies in Zambia are registered as public companies limited by shares and others as companies limited by guarantee.

Mulenga is also employed as an assistant waiter in Bangweulu Ltd. He reports for work after selling the fish. At the end of the year, Bangweulu Ltd had an end of year party. Mulenga was assigned to help at the end of year party as an assistant waiter. On the fateful day, 2 hours into the party, Mulenga was found sleeping in the pantry by the chief waiter. The Chief waiter informed the director who was very upset and immediately dismissed Mulenga telling him never to return for work again.

After a week of thinking, Mulenga remembered that 2 years ago his Union signed a collective agreement whose conditions and terms were that an employee can only be dismissed after a final written warning for a previous breach and/or with at least 2 witnesses.

Required:

(a) Advise Bwalya and Mulenga on the difference between partners by estoppel and general partners. (5 marks)

(b) Explain to Mulenga on his legal position in relation to his immediate dismissal. (10 marks)

(c) Distinguish between a public company limited by shares and a company limited by guarantee. (5 marks)

[Total: 20 Marks]

QUESTION SIX

Gondwe, Kunda and Lengani are partners in a business that sells video games hardware and software. The business proves to be extremely successful, and they have opened up a number of branches in the local area. In order to limit their liability, they instruct their advocate to incorporate the business, calling their new company 'The Campus Gaming PLC'. After two years of trading as a company, the business goes down. The only way the business may continue is to reduce the share capital of 'The Campus Gaming PLC', but this is not included in the Articles of Association. Or else, the company may be voluntarily liquidated.

Required:

(a) Explain if the Company may be able to reduce its share capital and the procedure the company may follow to do so. (10 marks)

(b) Suppose they decide to wind up their company, advise them on how the company may be voluntarily wound up.(10 marks)

[Total: 20 Marks]

END OF PAPER

CA1.4 SUGGESTED SOLUTIONS

SOLUTION ONE

(i) C

(ii) D

(iii) C

(iv) C

(v) C

(vi) D

(vii) D

(viii) C

(ix) B

(x) A

SOLUTION TWO

(a) *Extra Ordinary Meeting* - The meeting shareholders held is an extra-ordinary Meeting which is called upon to discuss an emergency that has befallen the company which cannot wait for the next annual general meeting. The matter is urgent and cannot wait. The resolution will be as binding as that of a general meeting

(b) *Powers of a liquidator* – The liquidator will have the following powers:

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

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

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

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

(c) *Golden Rule of Interpretation* – This is a form of legal interpretation aimed at producing the most reasonable result, even though this involves departing from the prima facie meaning of the words. This is done so as to avoid absurdity – *Re ReSigsworth (1935).*

(d) *Voidable Contracts of Minors* - The lease agreement is voidable as contracts with minors are voidable any time before they reach the age of majority. Thus the landlord, who is a minor in this context can avoid this contract. Thus the minor would be relieved of all his future liabilities in the contract

(e) *Termination of Mr. Simwinga's agency relationship with the company* – The relationship can ended in any of the following ways:

- Mutual consent between the principal and the agent
- Either party unilaterally giving notice to the other
- Lapse of time for which they agreed to have the partnership
- By operation of law, i.e if the partnership becomes illegal, death of one of the parties, insanity, bankruptcy, etc.
- Breach of the relationship by one of the parties, for example, Mr. Simwinga's behaviour breached the relationship.

SOLUTION THREE

(a) A director may vacate her office in any of the following ways:

(i) *Resignation* – He can resign from his position giving written notice to the company.

(ii) *Disqualification* – A director can be disqualified from office if she is

- absent from meetings for more than 6 months without consent of the other directors,
- uses her office for secret profits,
- fails to disclose her interest in a contract, etc.

(iii) *Retirement* – A director may retire due to old age or as provided for in the company's articles of association.

(iv) *Removal* – Can be removed by the shareholders when he does something wrong, contrary to the ethics of a company.

(v) *Expiry of Contract or term of office* – A director can vacate office when her contract comes to an end or expiry of the time during which she is to work as a director.

(b) *Fiduciary Duties* – These are duties of utmost good faith, duties of trust that directors are conferred with and are supposed to act for the best interest of the company. These duties include:

(i) *Duty not to have conflict of interest* – A director must always act for the best interest of the company. Personal interest must not take precedence. In *Regal (Hastings) Ltd v. Gulliver (1942)* it was held that directors must account for any secret profit they must have made whilst standing in a fiduciary relationship.

(ii) *Duty to exercise power for the benefit of the company* – A director must act for the benefit of the company at all times. Their interest must not collide with those of a company as seen in *Coronation Syndicate Ltd v. Lilienfield and New Fortuna (1903).*

(iii) *Duty to act honestly, Legally and within powers* – Directors are not supposed to do anything detrimental to the interests of shareholders (company). This was the decision in *Coronation Syndicate Ltd v. Lilienfield and New Fortuna (1903).*They must act within their powers, legally and with all honesty required of the office of director.

(iv) *Duty not to make secret profit* – Directors are under a duty not to make secret profit using their position in the company – *Boston Deep Sea Fishing Co. v. Answell (1888); and Regal (Hastings) Ltd v. Gulliver (1942)*

(v) *Duty to act with care and skill* – Directors need to act with care and skill. However, they do not need to exhibit greater skill than may reasonably be expected from a person of his knowledge and experience and must act with care, not recklessly Re City Equitable Fire and Insurance Co. Ltd (1925).

(vi) *Duty to account for any Secret Profit and duty to declare interest* – A direct has a duty to account to the company any secret profits made in the course of his position as director. In an event that he has interest in a particular matter, he must delay his interest beforehand and failure to do is a ground for disqualification. *Boston Deep Sea Fishing Co. v. Answell (1888); and Regal (Hastings) Ltd v. Gulliver (1942)*

SOLUTION FOUR

(a) Justice Minister Given Lubinda shall be advised that the stages of the bill are as follows:

First reading

The first reading of a bill is when a Minister (Given Lubinda) or a member presenting the bill introduces it to the entire house (Parliament). The presenter simply reads out the title of the bill and there are no debates on the bill at this stage by the members.

Second reading

The bill is then debated in detail under the second reading. The presenter (Given Lubinda) of the bill gives details of what the bill is all about it and what it intends to do. Members of the house then debate the bill, either supporting or opposing it. They indicate what changes or additions they would like to make to the bill.

Committee stage

The committee stage is when the bill is considered either by the committee of the whole house or a specialised committee of a few members. The committee examines the bill in detail, clause by clause. Members are free to make amendments to the bill. The purpose of this stage is to perfect the bill in terms of content, purpose, language and punctuation to ensure that the ideas contained therein are properly expressed. Here, you find technocrats or experts who look into the bill in detail.

Report stage

The committee that considered the bill reports back to the whole house on the work done on the bill. Members are free to make further amendments during the report stage of the bill. This stage becomes noticeable in the process only if the bill has been amended at the Committee stage. If the bill has not been amended at Committee stage, the Report stage is by-passed

Third reading

From the committee or report stage, as appropriate, the bill is then read to the house. This is the final stage that the bill is looked at in the house. If the house is satisfied that the bill has been properly dealt with, it is sent to the next stage.

Presidential assent or veto

After the bill has been passed by the house, Given Lubinda must know that it is now presented to the President for assent pursuant to Article 66 of the Amended Constitution.

If the President assents to the bill, he or she signs the bill and it becomes law immediately or at a later date, depending on what the bill itself states. A signed bill is called an 'Act of Parliament'.

If the President withholds assent or vetoes the bill, it has to be sent back to Parliament with recommendations. – Where Parliament passes the bill with amendments, the Speaker submits the bill to the President for assent within seven days: the President must sign the bill within seven days of receipt. – Where Parliament fails to pass the bill, in accordance with clause (2) (b), the bill shall not be presented to Parliament again in that session. Thus, where the President does not assent to a Bill within the period prescribed in clauses (1) and (4), the Bill shall be considered assented to upon the expiry of those periods.

At this point, Given Lubinda is advised accordingly

(b) The remedies available for the buyer in case of breach are:

i. **The right to reject the goods**

If the seller is in breach of a condition of the contract, the buyer may reject the goods unless he has lost his right to do so by accepting the goods or part of them. In addition he may claim damages.

ii. **Recovery of the price**

If the buyer has paid the price and the consideration has failed entirely, for example if the seller has no title or delivers goods which the buyer is entitled to reject, the buyer may sue to recover the price.

iii. **Damages for breach of condition or warranty**

If there is breach of warranty by the seller, or if the buyer is obliged (or prefers) to treat a breach of condition as a breach of warranty (that is, a claim for damages), the buyer may either reduce the amount paid to the seller by an allowance for the breach of warranty or sue for damages for breach of warranty.

iv. Damages for non-delivery

A buyer may also claim damages for non-delivery, calculated under the same principles as described earlier when a seller claims damages. This claim may be made if the seller either fails to deliver altogether or delivers goods which the buyer is entitled to, and does, reject. The buyer's claim for damages for loss of profit or liability for damages arising on that contract is not affected by a resale by him, unless it can be shown that the parties to the original sale contemplated that there would be a resale.

SOLUTION FIVE

(a) **Partner by estoppel** – This is a partnership by holding out (conduct). Thus if a person allows a partnership or others to hold themselves as if they are in partnership with him, they will be stopped (stopped) from denying that they are in partnership with him. The persons held out to be partners must be aware of that fact and have let things like that will doing anything to stop the holding out. Thus a creditor or any third party can sue them for breach of contract as part of the partnership. Whilst a **General Partner** is an ordinary partner with the rights to management of the partnership and all the other duties or roles arising from the partnership unless restricted by the partnership deed. He is a partner proper

(b) Before the actual detail is given, it must be noted that this question is almost similar to the case of **Pamdozi Hotel v Godwin Mbewe (1987)** where the terms and conditions of the employment were set out under the Collective Agreement, stated that dismissal could only occur after a final written warning for a previous breach. As no warning had been given, the summary dismissal was unlawful.

    Thus, this case looks at the procedure for summery and wrongful dismissal under a written agreement for someone who is drunk.

On the other hand, Musamvele's issue looks at an agreement made on the procedure for dismissal with at least 2 witnesses. Among the issues to be looked at is whether sleeping on duty would warranty a summary dismissal and the type of dismissal raised here.

Musamvele must be advised that dismissal that is contrary to the terms of employment is called wrongful dismissal. It is the form rather than the merits of the dismissal that is considered when examining an allegation of wrongful dismissal. Therefore, the question is not why, but how, the dismissal was effected, for example, where an employer fails to give the requisite notice.

In this instance, a contract of employment will have a provision for the termination of the employment contract with the employee by the employer by giving the required notice or payment of money in lieu of notice. This was not done by the Resort. If the employer dismisses the employee without giving him due notice or by giving less than the required notice, the employee may challenge such dismissal on the basis of lack of sufficient notice.

In this case, Musamvele has very high prospectus under wrongful and summery dismissal.

(c)

A company limited by shares is one that shareholder's liability is limited to the amount of share capital issued to them, whether paid for or not, usually formed for profit making, whilst a company limited by guarantee is one whereby the shareholder's liability is limited to the amount of money pledged or guaranteed to pay in case of liquidation. Companies limited by guarantee are usually used for non-profit activities such as charitable organizations.

SOLUTION SIX

(a) Before a company is formed someone would have conceived the idea alone or in association with others. These are the promoters although the term promoter is one of commerce and not law. It is not defined in the Companies Act and is a term of business that sums up in one word a number of business operations familiar to the commercial world by which a company is brought into existence. Note: A promoter is not an agent of the company as an agency relationship cannot be formed before a principal is formed. [Similarly, he/they are not trustees].

The promoters will decide such matters as (a) the company name, (b) the kind of business the company will engage in, (c) if the company will be public or private (d) if the company will be limited by shares or guarantee etc. After deciding on these issues the promoter(s) will take steps to actualize his/their intention.

Promoters play an important role e.g. they decide on the scope of the business of the company and if necessary can negotiate the purchase of existing businesses or property. They instruct lawyers, accountants etc. to prepare the necessary incorporation documents and they provide the necessary pre-incorporation expenses.

Although promoters are very important in the life of a company, the Act is unfortunately silent as to their legal position. However, as far as the legal position of promoters *vis a vis* the company is concerned, the common law has developed considerably. The position is that the promoter stands in a fiduciary relationship with the company he floats. He is neither an agent nor a trustee but the old familiar principles of the law of agency and trusteeship are applied. [He is not an agent because there is no principal - see Kelner v Baxter, [1866], there is no trustee as there is no trust in existence. Erlanger v New Sombrero Phosphate Co.]

Status of a Promoter

May not be defined in legal terms but many of the principles of the law of agency and trusteeship are extended to the promoter/company relationship. It is therefore well settled that the promoter of a company is accountable to it for all monies secretly received by the promoter, just as an agent is liable to his principal for any secret profits. The same principles apply in relation to a trustee and the beneficiaries (*cestuique trust*). This fiduciary relationship between the promoter and the company he floats imposes on the promoter the following specific duties.

(a) The promoter may not directly or indirectly make any profit at the expense of the company without the knowledge of the company. If he does so, he will be compelled to account for it. I.e. the company is entitled to any profit that the promoter makes during formation.

Gluckstein v Barnes [1900] AC 240. A syndicate bought property for 140,000 pounds and resold it to the company for 180,000 pounds. Previously, the syndicate had bought charges ion the property at a discount and after they bought the property, the vendor paid these charges in full. He prospectus issued for the new company showed only the 40,000 pounds the syndicate made on the sale of the property to the company but no disclosure of the 20,000 pounds it made on the charges. However, the 40,000 pounds was disclosed in a way that "excluded profits made on interim investments". The House of Lords held that the promoters were liable to account to the company for the 20,000 pounds made on the charges as well as the 40,000 pounds.

(b) Promoters should never be allowed to derive gain from the sale of their own property to the company they float unless all material facts are disclosed (no conflict of interest). Where the promoter contracts to sell his own property to the company without disclosing fully, then the company can either repudiate the sale or affirm the contract and recover the profit made by the promoter. [Erlanger v New Sombrero Phosphate Co. [1878] Note: it is not the making of a profit that the law seeks to forbid but any non-disclosure of this profit - see Salomon v Salomon - the profit was disclosed. The law only requires that the promoter make a full disclosure.

(c) The promoter must not make any unfair/unreasonable use of his position. He is under a duty to avoid anything that may suggest undue influence/fraud. This is a cross cutting issue.

(d) The promoter has a duty not only to be honest to the company and its shareholders but also to be careful towards them as well. The standard of duty - Hedley Byrne & Co v Heller & Partners Ltd [1964]. The promoters' liability is imposed by both the common law and the Companies Act.

Promoters Liability

The liability of the promoter is imposed by both the Common Law and the Companies Act. It is important to note that the rules under which a promoter will be liable for any secret profit made and for failure to disclose are identical to the rules of the Common Law which impose liability on agents and trustees. The Companies Act makes reference to the liability of a promoter in numerous sections, e.g. S.129(1) - liability of promoter for misstatements or omissions in the prospectus issued to the public.

(b). In law, a liquidator is the officer appointed when a company goes into winding-up or liquidation who has responsibility for collecting in all of the assets of the company and settling all claims against the company before putting the company into dissolution. In most jurisdictions, a liquidator's powers are defined by statute. In compulsory liquidation, the liquidator must assume control of all property to which the company appears to be entitled. Dissolution is the last stage of liquidation, the process by which the assets and property of the company redistributed. The companies that have the capacity to engage in this activity are listed here.

The law classifies liquidations into two types: voluntary (which is by a shareholders' resolution) or compulsory (by a court order).

Liquidations are also classified according to whether the company is solvent or insolvent.

Solvent and insolvent liquidations

If the company is insolvent, this means it is unable to pay its debts as they fall due. In this situation there is potential conflict between creditors (those to whom money is owed), as there will be insufficient assets for all creditors to be paid in full.

Voluntary liquidation (by shareholders' resolution)

Voluntary liquidation refers to the process whereby the shareholders appoint a liquidator, who is then answerable to the creditors or shareholders. It is not necessary to make any application to the court for this; however, the liquidator may apply to the court for directions and the court has power to remove a liquidator.

A voluntary liquidation may also by commenced by the board of directors if an event specified in the company's constitution has occurred.

Voluntary liquidation may be in one of two forms, depending on whether or not the company is solvent. If the company is solvent the shareholders can supervise the liquidation. However, if the company is insolvent, the creditors may take control of the liquidation process by applying to the court. The court will require proof of solvency or insolvency to determine this matter.

Compulsory liquidation (by court order)

Compulsory liquidation of a company requires obtaining a court order. This process starts with an application to the court alleging that one or more of the required grounds exist. The application may be brought by the company or a majority of its directors, or by the Registrar of Companies, or by a creditor. Applications by creditors are by far the most important and common.

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.5: MANAGEMENT THEORY AND PRACTICE

MONDAY 9 DECEMBER 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 Which theory assumes that people are naturally lazy and will avoid work and responsibilities if possible?

A. Theory W

B. Theory X

C. Theory Y

D. Theory Z (2 marks)

1.2 The objectives in corporate governance are

A. Profits

B. Clarity

C. Shareholders value maximization

D. Satisfaction (2 marks)

1.3 The advantage of delegation of authority is that it results in prompt ________.

A. Understanding

B. Decision making

C. Planning

D. Patience (2 marks)

1.4 Costliness of the ________ is the overriding factor determining the extent of decentralization.

A. Decision

B. Staffing

C. Controlling

D. Managing (2 marks)

1.5 Management is said to be the combination of three factors; arts, science and the third is:

A. Profession

B. Authority

C. Communication

D. Administration (2 marks)

1.6 Who is the father of the Three-Need Theory?

A. Vroom

B. McClelland

C. Peter Drucker

D. Elton Mayo (2 marks)

1.7 Which one of the following is an example of a financial motivator:

A. Encouragement

B. Freedom

C. Recognition

D. Bonus (2 marks)

1.8 Fredrick Winslow Taylor's Mechanism of Scientific Management does **NOT** include:

A. Scientific task setting

B. Planning the task

C. Standardization of tools and equipment's

D. Socialization

(2 marks)

1.9 The different A's of the service sector are:

A. Acceptability, Awareness, Answerability

B. Acceptability, Awareness, Availability

C. Administration, Awareness, Availability

D. Acceptability, Acknowledgement, Availability (2 marks)

1.10 The external factor(s) that **DO NOT** limit control is (are)

A. Government policies

B. Market changes

C. Economic changes

D. Recruitment (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 four.

<u>QUESTION TWO</u> – (COMPULSORY)

(a) An understanding of management and what is needed for good management has evolved over many years. Several theories have been developed and each theory presents a different view of management. Stewart defines management as getting things done through other people. In this regard managers play key roles in work planning, resource allocation and project management.

Required:

Explain the various activities that managers carry out in work planning, resource allocation and project management. (15 marks)

(b) Max Weber a Germany sociologist studied the growth of large bureaucratic organizations. He suggested that bureaucracies had grown because they were a successful form of organization as they provide a rational system for coordinating human activities, based on a hierarchy of authority. However, bureaucracy as a system of management has received a lot of criticisms.

Required:

Outline any five (5) reasons why bureaucracy is criticized. (5 marks)

[TOTAL: 20 Marks]

<u>QUESTION THREE</u>

Organizational change may be triggered by internal or external factors. Consequently change may be planned or unplanned.

Required:

(a) Define organizational change. (5 marks)

(b) Explain what is meant by planned change and unplanned change. (5 marks)

(c) Explain three (3) internal triggers for change which could develop within an organization. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) ZESCO supplies electricity to all people regardless of their status in a fair manner with the intention of closing up where private sector cannot or has left. Like Zambia Development Agency all its activities are aimed at making the citizenry happy and comfortable and to pledge allegiance to the government.

Required:

(a) Use the statement above to contrast (differentiate) the characteristics of public and private sector organizations. (6 marks)

(b) Define the statutory bodies. (6 marks)

(c) Explain with examples the roles of such bodies in the business environment in Zambia. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

Management is said to be the process of coordinating the various functions of a business organization. It is also the process of overseeing the activities of the workers in order for them to work efficiently and effectively to facilitate the achievement of the organization's objectives. According to Henry Fayol, there are five functions of management.

Required:

(a) Describe the five (5) functions of management. (10 marks)

(b) Explain any five (5) principles of Management (10 marks)

[Total: 20 Marks]

QUESTION SIX

The performance of an organization depends on having an appropriate structure for the nature and size of the business, and suitable internal relationships. In addition, the structure of an organization may also affect efficient decision-making process.

Required:

(a) Define the term divisionalisation. (4 marks)

(b) State two (2) reasons for making such a movie in an organization. (4 marks)

(c) Explain the six (6) conditions required for successful divisionlisation. (12 marks)

[Total: 20 Marks]

END OF PAPER

CA 1.5 SUGGESTED SOLUTIONS

SOLUTION ONE

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

SOLUTION TWO

a. Managers have key roles in work planning, resource allocation and project management.

Work planning: this involves establishing work methods and practices to ensure that predetermined objectives are met. The following activities will be involved:

I. **Task Sequencing or Priotization**. Managers put tasks into an order of importance for achieving objectives and meet deadlines.

II. **Scheduling and Time Tabling Tasks:** Tasks should then be allocated to individuals or project teams for completion within a given deadline.

III. **Establishing Checks and Controls** to ensure that deadlines are being met and routine tasks are achieving their objectives.

IV. **Contingency Plans**: Managers should make alternative plans to be used in an event where the unexpected happens. Contingency planning means having a plan B ready in case plan A does not work.

V. **Co-ordinating**: Managers should integrate activities and schedules so that data and work flows smoothly from one stage of operation to another.

Resources Allocation: Managers have access to the following resources, which they should allocate between tasks in order to carry out their responsibilities:

I. Human resources: staff time and skills

II. Material resources: such as raw material, equipment, machine time, office spaces etc.

III. Financial resources: Managers are given authority to spend within budget lines

IV. Managers may be responsible to allocate resources between different activities or projects where total resources are limited.

V. Managers may be responsible to allocate resources between different ways of trying to achieve the same objective i.e. an objective to increase sales revenues or to reduce costs.

Project management: A project is an undertaking that has a beginning and an end and is carried out to meet established goals within costs, schedule and quality objectives.

Projects generally:

I. Have specific start and end points.
II. Have well defined objectives, costs and time schedules,
III. Cut across organizational and functional boundaries i.e. members of project team come from different functional departments.

The job of project management is to foresee as many contingencies as possible and to plan, organize, co-ordinate and control activities.

b. The following are the five (5) reasons why bureaucracy is criticized:

I. There is too much emphasis on conformity with rules and procedures, and record keeping.
II. Managers within a bureaucracy may have too much concern for position and status, and may not be flexible and adaptable in their approach to management.
III. Initiative may be discouraged by the existence of rules and procedures.
IV. Impersonal relations can lead to stereotyped behavior and a lack of responsiveness to individual incidents or problems.
V. Bureaucracies are slow to react to change in a dynamic and ever changing business environment.
VI. Bureaucracies may create an opportunity for managers to hide from responsibility by following the rules and claiming that they were just following the rules.

SOLUTION THREE

(a) Change may be defined as doing or making things differently. Organisational change involves the total change implemented in the organisation to alter the operations in the organisations or the way things are done. This change can be triggered by internal or external forces. This can be planned or unplanned

(b) (i) Planned change: Planned change is largely influenced by the need to respond to the new challenges or opportunities in the external environment or anticipated changes in the future that would affect the organisation negatively, if nothing is done. It is part of the strategic process in the organisation operation.

(ii) Unplanned change: this is a responsive change, generally due to evolutionary or even revolutionary circumstances where the external environment compels the organisation to go into the change mode for instance due to the change in technology, change in the composition of people etc.

(c) Internal triggers for change in an organization includes any of the following:

i. A general sense that the organisation could perform better;
ii. The need to improve organisational flexibility, quality or to develop new customer concern;
iii. A sense that skills and abilities of people are under-utilised or concerns about a lack of commitment from employees;
iv. The need to introduce changes in technology or working practices;
v. Workers feeling over-controlled by supervision or the process or jobs seen as being boring;
vi. Concerns about ineffective communications or poor performance indicators;
vii. Fractious relationship between managers and the managed.

SOLUTION FOUR

a) Contrast of characteristics of public and private sector organization:

Public sector organization characteristics	Private sector organization characteristics
Fairness	Limited liability
Provide security	Employees move to more interesting roles
Public interest	Has a lifetime existence unless it is liquidate

b) Statutory bodies are organisations created through an ACT of Parliament which provides for the establishment of a new organization. They include the Competition and Consumer Protection, Zambia Wildlife Authority, Pensions and Insurance Authority, Zambia Information and communications Technology Authority, Energy Regulations Board and Roads Development Agency.

c) -The competition and consumer protection, for instance was established to regulate anti-competitive market behavior by dominant firms in their market

-The energy regulation board ensures that customers are not exploited

SOLUTION FIVE

a. *You are required to describe these functions of management*

i. **Planning:-**This is the first and most important function of management. According to Fayol, every company needs a good plan of action. However, a critical thing related to planning is the involvement of the entire organization. Managers should focus on planning so as to prepare a course of action that can help them manage production, personnel and resources. A plan of action helps the management remain ready for upcoming challenges as well. Planning should remain linked to all the layers in the organization. All the layers should participate in planning and implementation. An important concern while planning for the managers is to take into accounts the organizational resources and human resource capability. Moreover, planning can be short term as well as long term and should be seen as a continuous process. Managers should plan, implement and review continuously to adjust the plan as per the progress made.

ii. **Organization**:-This is also a critical function for the survival of any organization. Organizations cannot survive unless they are properly organized. It also helps at coordination of tasks between various levels and departments. Organizations can have different structures and sizes. However, a proper structure is still essential irrespective of the company's size. If the resources are organized properly, they can be utilized efficiently. Organizations with a proper structure find themselves in a better position to utilize their resources. Workflow and decision making are also impacted by organization. This element is an important function of management and also affects productivity and profits.

iii. **Commanding:** - Commanding is an essential management function. The management should give clear commands to its workforce so it can produce the desired output. Giving concrete instructions or clear commands also ensures that the performance of the workforce is optimized. Communication assumes an important role in the context of management. Managers should act with integrity in this respect and communicate clearly to the employees what is expected of them. Clear cut instructions also keep the employees motivated. Employees need commands to know how they are desired to act and what targets they need to achieve.

iv. **Coordination:-**Another important management function that can have a direct impact on productivity is coordination. Leadership must focus on coordination to ensure proper workflow, employee motivation as well as high productivity. All these things can be achieved through coordination. To achieve a high level of coordination, communication must be used as a tool. Coordination leads to synchronization throughout the organization which leads to increased productivity. Proper training and communication helps achieve a high level of coordination throughout the organization. Lack of coordination can have negative effects on employee performance and organization's productivity.

Control:-Control or monitoring ensures that everything is running as per the plan. Evaluation is a very important component of this function. Managers should evaluate employee performance regularly to ensure adherence to the plan. It requires the managers to see if there are obstacles to the implementation of the plan or if there is a critical deviation from the plan. The managers can set performance standards and measure performance based on them. After having compared results, it is easy to take corrective action to fill the gaps. Continuous monitoring ensures that the plan is adhered to and that performance gaps are identified and filled.

b. State ten (10) principles of Management.

i. **Division of work-** work should be divided into jobs with separate areas of activity.
ii. **Authority and responsibility-** A manager should have authority and take responsibility over his decisions and over his span of control
iii. **Discipline-** Exercise of discipline at work place is an outward mark of respect for agreements between management and its members
iv. **Unity of command-** Employees should receive orders from just one boss. Dual command is the perpetual course of conflict.

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

vi. **Subordination of individual interest to general interest**- interest of the organization should come above individual interest.

vii. **Remuneration of personnel**- remuneration should as far as possible satisfy both the employees and the employer.

viii. **Centralization**- Centralization of decision making is necessary in any organization.

ix. **Scalar Chain**- the chain of command and line of reporting should be clear, sensible and understood.

x. **Order-** Employees need a sense of order in their work. They need to know how they fit in the organization and what the organization expects of them.

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

xii. **Stability of tenure of personnel**- employees should be kept in the same job for a reasonable long time for them to settle.

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

xiv. **Esprit de corps**- encouraging team spirit among workers develops a strong, positive work culture.

CA ZAMBIA PROGRAMME EXAMINATIONS

KNOWLEDGE LEVEL

CA 1.6: BUSINESS COMMUNICATION

WEDNESDAY 11 DECEMBER 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.

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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 How many bits can a 160GB hard disk hold?

A. 1,280,000,000,000bits
B. 8bits
C. 160bits
D. 12 bits (2 marks)

1.2 What is knowledge, skill and experience developed by staff called?
A. Patents and Client lists
B. Organisations Human Capital
C. Patents and Human Capital
D. Human Capital and Client lists (2 marks)

1.3 The Unix operating systems was developed as a non- proprietary. What does the term non -proprietary mean?
A. Specific to one manufacturer
B. Not specific to one manufacturer
C. Specific to few manufacturers
D. Specific to more manufacturers (2 marks)

1.4 What does the concept "hyperlink" mean?

A. It is a text that contains links to other documents or website
B. It is a text that has images embodied in the text
C. It is text that appears as a super script
D. It is a text that appears above the normal text (2 marks)

1.5 Which one of the following can be used for security controls in any organisation

A. Leaking
B. Impersonation
C. Authentication

D. Phishing attack (2 marks)

1.6 Which of the following takes place in vertical communication?

A. Diagonal communication
B. Upward communication
C. Lateral communication
D. Horizontal communication (2 marks)

1.7 In the process of communication, what is the role of the sender?

A. Encoding
B. Decoding
C. Giving feedback
D. Receiving message (2 marks)

1.8 Which one of the following is currently a good example of how to effectively keep every member of the organization informed about the latest developments?

A. Sending emails to all
B. Calling meetings
C. Using the notice board
D. Establishing and utilising social chart groups (2 marks)

1.9 Which of the following is a characteristic of written communication?

A. Both illiterate and literate people can use it
B. It requires both listening and speaking skills
C. Only literate people are able to use it
D. Only illiterate people can use it (2 marks)

1.10 In an email what does the term **bcc** mean?

A. The receiver should be aware of the parties to whom the message has been copied
B. The recipient is unaware of the other recipients and their addresses
C. The sender does not know who has received copies of the message
D. The mail addresses of the receivers do not have a dot com (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)

In a meeting that was held three (3) weeks age, management at Mupala Software Company decided to reduce the cost of stationary by allowing most of its communication to be done electronically in particular using email as a channel of communication.

Required:

(a) Define the term email. (2marks)

(b) Write a memorandum to junior staff at Mupala Software Company about management's decision to reduce costs on stationary. In your memo includefive (5) advantages of using email as a channel of communication. (14 marks)

(c) State the four (4) main types of technical controls that management at Mupala Software Company can consider in order to control the dangers of email as a channel of communication. (4marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

You are a new employee in an organisation. You have observed that each computer stores its own data it needs for its operations and peripherals such as printers. As a result you also experience inefficiencies that come with this kind of operation.

Required:

(a) Explain how using a database to store organisation information would be advantageous in your new organisation. Give at least four (4) reasons. (8 marks)

(b) Explain the following features of MS Office:

(i) Word Wrap (3 marks)
(ii) Find and Replace (3 marks)

(c) Give three (3) advantages of client/server network over peer-to-peer network.

(6 marks)

[Total: 20 Marks]

QUESTION FOUR

Most organisations are now using computer technology to carry out work activities and store information. As a result of this situation, the issue of security of information has become more important to most business organisations.

(a) Explain the following terms in relation to computer security.

(i) Confidentiality (2 marks)

(ii) Authentication (2 marks)

(iii) Authorisation (2 marks)

(b) Briefly explain the following types of controls:

(i) Hardware Controls (2 marks)

(ii) Administrative Controls (2 marks)

(iii) Data Controls (2 marks)

(iv) Technical Controls (2 marks)

(c) Explain any three (3) problems associated with the use of computers in business organization. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

You were requested to carry out an investigation on the sales performance of the five (5) products that are produced at M &B Company that you work for. In your report you wish to include a multiple line graph as one of the appendices indicating the sales of the products from the first quota of the year 2019. The sales figures are indicated below:

Product	Month January	Month 2 February	Month 3 March
Coffee	208	114	108
Margarine	115	65	110
Cheese	30	80	115
Yogurt	50	215	125
Cooking oil	315	300	212

You also wish to structure your report in such a way that it will include the introduction, procedures, findings, conclusions and recommendations and other parts of a report.

Required:

(a) Using the information in the above scenario, draw a multiple line graph that will visually represent the sales figures for each product to be added as an appendix in the report. (6 marks)

(b) Briefly explain the following parts that will be included in your report.
- (i) Executive summary
- (ii) Introduction/ Terms of reference
- (iii) Findings
- (iv) Recommendations
- (v) Appendices
- (vi) Report title
- (vii) References (14 marks)

[Total: 20 Marks]

QUESTION SIX

You are a Finance Manager at Mukoma enterprise. You have received a letter from Mulemwa and Company requesting for information on Microsoft office which they wish to install in their organisation. The enquiry on the software package is very important to Mulemwa and Company so that an important decision is made regarding the purchase of a software package.

Required:

(a) Write a letter responding to Mulemwa and company's enquiry on Microsoft office. (15 marks)

(b) State one major difference between a memorandum and a business letter. (2 marks)

(c) State any three (3) **disadvantages** of written letters compared to oral communication (3 marks)

[Total: 20 Marks]

END OF PAPER

CA1.6 SUGGESTED SOLUTIONS

SOLUTION ONE

1 A

2 B

3 B

4 A

5 C

6 B

7 A

8 D

9 C

10 B

SOLUTION TWO

(a) Email is used to describe various systems of sending and receiving data or messages over a computer network. It is an interconnection of computers worldwide.

(b) **Mupala Software Company**

Memorandum

Ref : MUP/123/19

Date : Any date during exam time

To : All Staff Accounts department

From : The Finance manager

Electronic mail as a means of communication in the organisation

In order to much with the modern standard technological changes, Management has decided to reduce the cost of stationary by allowing most of its communication to be done electronically in particular using email as a channel of communication. Adopting the use of email as a channel of communication has some advantages that most people would benefit. Some of the advantages of using email are as follows:

- Email is a cheaper way of communicating
- It is efficient (ie a message which is prepared once can be sent to thousands of people at a touch of a button)
- Security (access can be restricted by the use of passwords)
- Documents can be attached from word processing and other packages
- Electronic delivery and read receipts can be requested
- It is easy to operate with easy automation.
- It is very fast

In addition to the above benefits, adopting email as a way of communicating would also reduce a lot of litter that is thrown around the offices. Kindly take this information as official notification. Your cooperation in this matter will be appreciated

Sender's signature

Sender's name

(c) Four (4) main type of technical controls

- Documentation
- Authorization
- Backup
- Recovery

SOLUTION THREE

a) Advantages of using a database
- Less duplication – data is input once only to update data on the file
- Less processing – by minimizing data redundancy
- Easy updating – data is equally up to date for all applications
- Data consistency – all users access the same data
- Improving access – this allows many users to access the same shared files
- Formal controls of data – this ensures that data is properly backed-up and that access is properly controlled

b)

i. Word Wrap is a feature that forces text to automatically move to next line when the current line is full without the user having to press the return key.

ii. It is a feature that enables the user to **find** a particular word, phrase, sentence, etc in a document and can replace it with another word, phrase, sentence, etc.

c) Advantages of client/server over Peer to Peer

i. Ability to share data through the organisation

ii. Ability to share resources.

iii. The client server architecture provides more security to the data

iv. Client/server networks are easier to manage.

SOLUTION FOUR

a) The three types of data security that it is necessary to have are:

- **Confidentiality** – keeps information encrypted so that only the owners can decipher their information
- **Authentication** – allows only certain people the access to information
- **Authorization** – allows only authorized people to make changes to information.

b) Types of controls

- **Hardware Controls:** Ensuring the safety and security of hardware from accidental or malicious damage.
- **Administrative Controls**: this ensures that passwords are changed regularly that employees have the correct access rights.
- **Data Controls**: Ensure that all data input has been authorised and has been input completely and accurately
- **Technical Control:** These are IT solutions to security concerns and often relate to the storage of and access to data as well as to amending and deleting data files.

c) Problems associated with using computers are as follows:

- Health risks: computers addiction and technology over load
- Impact on the environment

  Computer manufacturing processes and computer waster are depleting natural resources and polluting the environment.

  Once discarded inland fills, they can release toxic materials. These contain lead, mercury and flame retardants.

- Impact on labour force:

Indeed, computers have improved productivity in many ways and have created an entire industry with thousands of new jobs, but, the skills of millings of due to the new technology.

- Theft of personal details

  While using the internet, there is a high probability that your personal details like name, address and credit card number may be accessed by unknown artists and used for fraudulent purposes. These are con men that have infiltrated the computer industry.

- Pornography

  This definitely harmful for children, watching such programs can have bad influence on their mental health.

- Violation of privacy

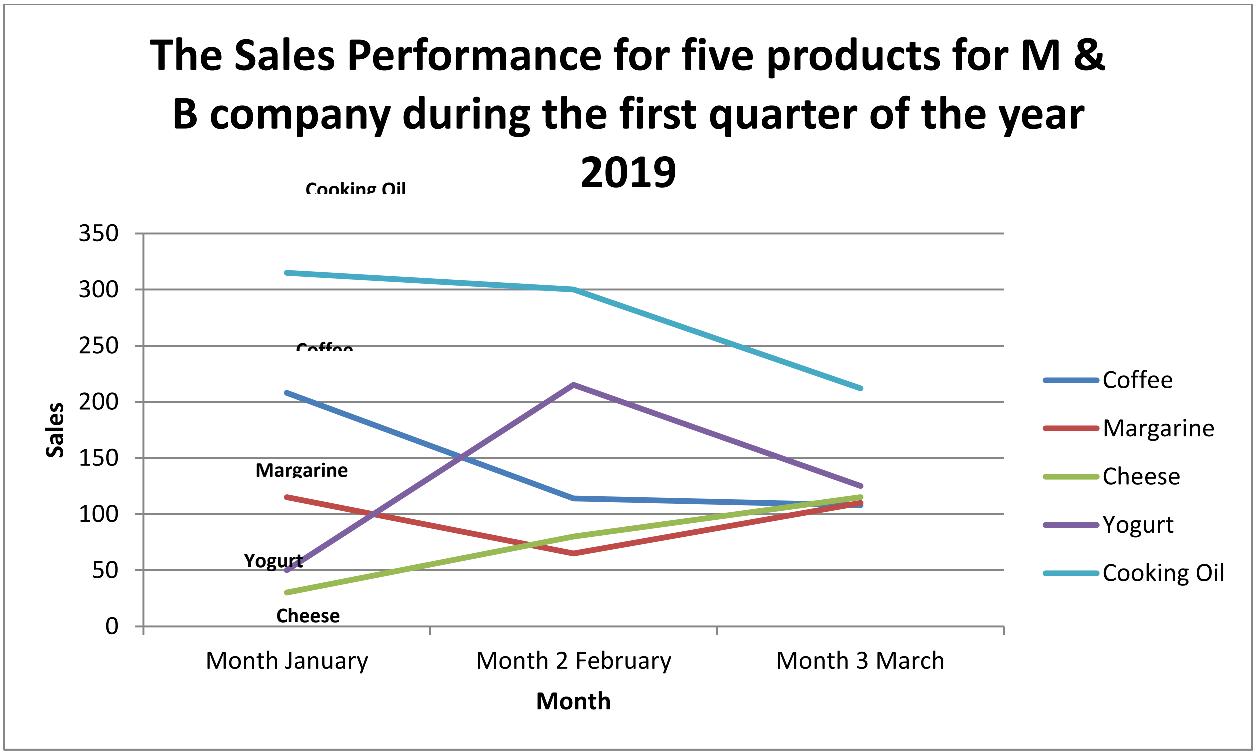
  In case where personal and confidentiality records are not protected properly, individuals have found their privacy violated and identities stolen.

- Virus threats:

  Computer programs that can replicate itself and spread from one computer to another

SOLUTION FIVE

(a)



(b) Briefly explain the following parts that will be included in your report.

- **Executive summary** – This is a very condensed contents of the report.it is usually meant for readers who cannot read the full report, but quickly want to find out what has been said in a report .
- **Introduction / Terms of reference** – This is a summary or an overview of what is covered in the report. (A breakdown of the contents of the report in summary) It may contain a brief background information to the subject matter and the conditions under which a report was written.
- **Findings** – This is the main body of a report. It contains detailed information of the report. This part contains factual information about an investigation, event or an occasion. The information is usually presented in a logical manner, taking care of a number of findings.
- **Recommendations** – These are the suggestions to a problem after the findings of an investigation.

- **Appendices** – contains detailed information which is referred to from the main body of the report. The referred information help to minimise any form of distractions by high volumes of technical information found in the main body of a report.
- **Report title** – is the main subject or topic of a report, usually written in brief form. It gives an idea of what the report is all about.
- **References** - provides details of the sources where the researcher obtained the information that is contained in the report.

SOLUTION SIX

(a)

Mukwa General Dealers

P O Box 31178

Lusaka

Our Ref: MUK /123/19

Your Ref:

Date during exam time

Mulemwa and company

P O Box 31369

Lusaka

Dear Sir,

Request for information on Microsoft office software package

We acknowledge receipt of a letter that we received from your organization in which you requested for information on Microsoft office software packages. We are pleased to learn that you are interested in such software packages.

We wish to inform you that we have in stock this type of software which means is available with us. It is worth to note that this software programs provide a range of tools, such as word processing, spreadsheets and databases. Microsoft office is an integrated software package which makes things easy for a user. To be specific, it includes word processing (word),spreadsheets (excel) presentation software (PowerPoint), database (access) and email organization (outlook)

We would like to inform you that we also have specilised staff who would assist you with the installation of the software when customers buy from us.

For any further information, you can contact our offices on 097671458. We hope that you will soon contact us for business regarding the same issue.

Yours faithfully

Sender's signature

Sender's name and position

(b) The difference between a memo and a letter is that a memo is meant for internal communication while a letter is meant for both internal and external communication.

(c)

- There is no immediate exchange of information
- It is time consuming.
- There is no immediate clarification of ideas
- There is no immediate feedback of information
- It does not easily promote interpersonal relations compared to oral communication

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.1: FINANCIAL REPORTING

MONDAY 9 DECEMBER 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

Both questions are compulsory and must be attempted

QUESTION ONE

(a) The following is the trial balance of Chala Plc for the year ended 31 December 2019.

	K'000	**K'000**
Revenue		2,280.00
Cost of sales	960.00	
Distribution costs	420.00	
Administrative costs	480.00	
Finance cost (Note 2)	108.00	
Dividends paid	90.00	
Trade receivables	288.00	
Trade payables		384.00
Bank	168.00	
Inventory	192.00	
Deferred tax asset as at 1 January 2019	156.00	
Current tax	65.00	
Property at valuation (Land K312,000)	1,032.00	
Plant and equipment at cost	600.00	
Investment property	320.00	
Investment income		32.00
Accumulated depreciation:		
Plant and equipment		216.00
Equity shares K0.8		240.00
Share premium		408.00
Retained earnings		419.00
Bank loan		900.00
	4,879.00	4,879.00

The following information is relevant:

1) On 31 December 2019, Chala Plc made a bonus issue of 300,000equity shares. This has not been recorded in the books of Chala Plc.

2) Finance cost relates to interest paid on a 20% bank loan. Chala Plc got the loan on 1 April 2019.

3) Property was revalued by professional valuers for the second time on 31 December 2019 toK1,056,000 of which K332,000 relates to land. The previous valuation was

done on 31 December 2018 which resulted in a deficit of K12,000. The deficit was charged to administrative cost. The effects of the latest valuation have not been reflected in the books of Chala Plc.

4) Chala Plc acquired an item of plant on a four year lease period on 31 December 2019. The plant has an economic useful life of five years. The fair value of the plant at that date was K180,000. The interest rate implicit in the lease agreement was 10%. Chala Plc is required to pay annual lease rentals of K56,780 in arrears.

   The lease has not been recorded in the books of Chala Plc.

   Note: Ignore present value of minimum lease payments.

5) Buildings are depreciated on straight line basis with nil scrap value. The building had a remaining useful life of 20 years at 31 December 2018. Plant and equipment on the other hand are depreciated at 20% per annum using reducing balance method.

   Depreciation of buildings is charged to administrative costs while that of plant and equipment and leased plant is charged to cost of sales.

6) The current tax figure represents an under/over provision of income tax. The directors have estimated income tax for the year to 31 December 2019 to be K98,000. Total net deductible temporary differences at 31 December 2019, before taking into account effects of revaluation in (3) above, amounted to K400,000. Deferred tax relating to valuation of property in (3) above was K3,000. The income tax rate applicable to Chala Plc is 35%.

7) Investment property in the above trial balance is based on its fair value at 31 December 2018. The fair value of property at 31 December 2019 was K340,000.

Required:

(i) Prepare the statement of profit or loss and other comprehensive income for Chala Plc for the year ended 31 December 2019. (11 marks)

(ii) Prepare the statement of changes in equity for Chala Plc for the year ended 31 December 2019. (4 marks)

(iii) Prepare the statement of financial position for Chala Plc for the year ended 31 December 2019. (10 marks)

(b) The Chairman of Paja Limited said the following in one of the board meetings: "it does not matter the basis used to prepare financial statements. A business can use either cash basis or accruals basis and the information provided to various stakeholders will still be useful."

Required:

Explain to the Chairman of Paja Limited the differences between financial statements prepared using accrual and cash bases. (4 marks)

(c) Yapa is thinking of investing in Galana Limited. He believes that all he needs to do is check the financial statements of the company for the past 4 years with particular interest in its profitability. This is because he believes financial statements have no flaws and that they provide all information relevant to decision making.

Required:

Explain to Yapa, with relevant examples, any four (4) limitations of financial statements. (8 marks)

(d) Kapa Plc is a listed company with several subsidiaries and associated companies. On 31 December 2019, Kapa Plc decided to dispose of the entire 100% equity shares in Laya Limited for a cash consideration of K600,000. The following information relates to investment in Laya Limited as at 31 December 2019:

	K'000
Fair value of net assets	450.00
Unimpaired goodwill	80.00

Required:

Calculate gain on disposal of 100% equity shares in Laya Limited for inclusion in the consolidated financial statements of Kapa Plc group for the year ended 31 December 2019. (3 marks)

[Total: 40 Marks]

SECTION B

Attempt any three (3) questions in this section

<u>QUESTION TWO</u>

The following are the draft statements of financial position of Saama Plc, Dasa Plc and Zava Plc as at 31 December 2019:

	Saama Plc	Dasa Plc	Zava Plc
	K'000	**K'000**	**K'000**
Assets			
Non-current assets			
Property, plant and equipment	968.00	600.00	360.00
Investments in:			
Zava Plc	79.00	-	-
	1,047.00	600.00	360.00
Current assets	447.00	312.00	276.00
Total Assets	**1,494.00**	**912.00**	**636.00**
Equity and liabilities			
Equity			
Equity shares of K0.50 each	276.00	228.00	216.00
Share premium	126.00	102.00	90.00
Retained earnings	174.00	(30.00)	72.00
Total Equity	**576.00**	**300.00**	**378.00**
Liabilities			
Non-current liabilities	720.00	438.00	204.00
Current liabilities	198.00	174.00	54.00
Total Liabilities	**918.00**	**612.00**	**258.00**
Total equity and liabilities	**1,494.00**	**912.00**	**636.00**

The following information is relevant in the preparation of group accounts.

(1) Saama Plc acquired 60% of Dasa Plc's equity shares on 1 January 2018 for a consideration of K300,000payable on 31 December 2020. Share premium and retained earnings were K102,000 and K5,000 respectively at that date. The fair values of net assets at acquisition were equal to their carrying values except for an item plant. The fair value of plant was above its carrying value by K10,000. It had a remaining useful economic life of 5 years at acquisition date. The fair value adjustment has not been incorporated in the above statements of financial position.

(2) Saama Plc acquired 40% of Zava Plc's equity shares on 31 December 2018 for a cash consideration of K79,000. Share premium and retained earnings were K90,000 and K32,000 respectively at that date. The fair values of net assets at acquisition were equal to their carrying values.

(3) Saama Plc has cost of capital of 10%. The discount factors below are relevant:

Year	**DF @10%**
1	0.909
2	0.826
3	0.751

(4) During the year to 31 December 2019, Dasa sold goods to Saama Plc for K18,000. The goods cost Dasa Plc K15,000 to buy. 20% of these goods were still in the inventory of Saama Plc.

(5) Dasa Plc and Zava Plc have not issued any additional shares since being acquired by Saama Plc.

(6) Investment in Zava Plc is shown in the statement of financial position of Saama Plc at cost. Investment in Dasa Plc has not been incorporated in the books of Saama Plc.

(7) Goodwill in Dasa Plc has been impaired by K2,000 as at 31 December 2019.

(8) It is group policy to value non-controlling interests at fair value of net assets at acquisition. The fair value of non-controlling interest in Dasa Plc on 1 January 2018 was K150,000.

Required:

Prepare the consolidated statement of financial position for Saama Plc as at 31December 2019. **[Total: 20 Marks]**

QUESTION THREE

(a) On 1 January 2019, Lamana Plc borrowed K600,000 for building a new warehouse. The loan carries an annual interest rate of 25%. Building of the new warehouse started on 1 March 2019 and by 31 December 2019, the company had spent K120,000.

When preparing the draft financial statements for the year ended 31 December 2019, the Directors are proposing to show interest of K150,000 (25% x K600,000) as finance cost in the statement of profit or loss.

Required:

Evaluate the appropriateness of proposed accounting treatment. (4 marks)

(b) Bala Limited has been in existence for more than 12 years. In recent years the company has been experiencing a steady decline in its customer base which has adversely affected its ability to generate cash from its operations to settle liabilities when they fall due. The Directors of Bala Limited, based on recent cash flow projections, believe the company will be liquidated by June 2020. Consequently, the Directors held an emergence board meeting on 1 October 2019 in which they unanimously agreed to have the company liquidated by 30 June 2020. The accountant of Bala Limited is not sure of the basis for preparing financial statements for the year ended 31 December 2019.

Required:

Explain the appropriate basis of accounting to be used for preparing financial statement for the year 31 December 2019. (4 marks)

(c) Masano Plc acquired 30,000 of the 100,000 issued equity shares of Sada Limited on 1 August 2019. This resulted in Masano Plc having one (1) seat on Sada Limited's board of directors.

The group accountant of Masano Plc is not sure of how the investment in Sada Limited should be treated in the consolidated financial statements of Masano Plc for the year to 31 December 2019.

Required:

From the information given, state with reasons, whether Sada Limited is a subsidiary or an associate of Masano Plc. (4 marks)

(d) Hala Plc acquired an item of machinery at a total qualifying cost of K400,000 on 1 January 2019. The company paid K300,000 and the balance of K100,000 was in form of government grant. The company has a policy of treating grants as deferred income.

Hala Plc depreciates machinery on straight line basis with nil scrap value over an economic useful life of 5 years.

Required:
Prepare extracts of Hala Plc's financial statements for the year to 31 December 2019 to show the accounting treatment of the government grant. (2 ½ marks)

(e) Daya Plc acquired 50% of the equity shares in Gana Plc on 1 January 2019 which gave it joint control of the company. The cost of the 50% investment was K270,000.

During the year ended 31 December 2019, Gana Plc made trading losses of K10,000. Gana Plc did not pay out any dividends.

Required:
Prepare extracts of Daya Plc consolidated financial statements for the year to 31 December 2019 to show the accounting treatment of the investment in Gana Plc. (2 marks)

(f) Lakala Limited imported a double cab Toyota Hilux from Japan on 1 January 2019 at a total cost of K80,000 up to Nakonde border. Non–refundable duty amounted to K63,000. Freight charges from the Nakonde border to company premises were K2,000. The Toyota Hilux was at the company premises on 1 April 2019. On the same day, Lakala Limited incurred the following costs:

- Insurance cost of K3,000for the period 1 April to 31 December 2019; and
- Road tax of K600 for the period 1 April to 31 December 2019.

LakalaLimited depreciates motor vehicles on straight line basis with nil scrap value over an economic useful life of 5 years.

Required:
Prepare extracts of Lakala Limited's financial statements for the year to 31 December 2019 to show the accounting treatment of transaction above. (3 ½ marks)

[Total: 20 Marks]

QUESTION FOUR

(a) The following transactions relate to Catala Plc for the year ended 31 December 2019 and Directors' proposed treatment in the company's financial statements.

1) An item of plant with cost and carrying value of K400,000 and K240,000 respectively was reviewed for impairment on 1 January 2019. This showed that it had fair value less costs to sale of K180,000 and value in use of K210,000. Plant is depreciated at an annual rate of 20% on straight line basis with nil scrap value.

   When preparing the draft financial statements for the year ended 31 December 2019, the Directors are proposing to show depreciation charge for the year of K80,000 (20% x K400,000) for consistence purposes. (6 marks)

2) Inventory with a cost of K90,000 had net realisable value of K88,000.

   When preparing the draft financial statements for the year ended 31 December 2019, the Directors are proposing to include this inventory in other inventories figure at a cost of K90,000. (2 marks)

3) Catala Plc built a filling station and put it to use on 1 January 2019 at a total cost of K100,000. The company was allowed to build the filling station provided it were dismantled and site restored as close as possible to its original state at the end of 10 years. The company has been advised by other operators that the cost of site restoration in 10 years could cost K30,000. Catala Plc has cost of capital of 10%.

   When preparing the draft financial statements for the year ended 31 December 2019, the Directors are proposing to show the filling station at a cost of K100,000 subject to depreciation charges. (6 marks)

   The following is relevant:

Year		**10%**
1 to 10	Annuity factor	6.145
10	Present value factor	0.386

   Required:

   Evaluate the appropriateness of proposed accounting treatment.

(b) The accountant of Chasa Limited is preparing financial statements for the year 31 December 2019. She knows that items recognised on the face of financial statements should be supported by quality disclosures. However, she is not sure of the qualitative characteristics that the disclosures to the financial statements should possess.

Required:

Explain to the accountant of Chasa Limited any three (3) qualitative characteristics which disclosures to the financial statements of the company should possess.

(6 marks)

[Total: 20 Marks]

QUESTION FIVE

Samala Limited deals in assorted hardware goods. It was formed 10 years ago. In January 2019, the Directors of the company introduced the following strategies in order to improve its operational and financial performance:

- Increase the selling price of all its products by 20%;
- Dispose of old property and plant and intangible assets;
- Raise funds by issuing additional equity shares and borrowing;
- Increase customer credit period; and
- Buy from cheaper suppliers.

The following are the financial statements of Samala Limited for the year to 31 December 2019 and 31 December 2018.

Statements of profit or loss and other comprehensive income:

	2019	2018
	K'000	K'000
Revenue	1,660.00	2,400.00
Cost of sales	(600.00)	(720.00)
Gross profit	1,060.00	1,680.00
Other income (note 1)	60.00	-
Distribution cost	(300.00)	(420.00)
Administrative cost	(540.00)	(720.00)
Finance cost	(215.00)	(155.00)
Profit before tax	65.00	385.00
Taxation	(26.00)	(154.00)
Profit for the period	39.00	231.00
Other comprehensive income		
Revaluation gain	120.00	-
Total comprehensive Income	159.00	231.00

Statements of financial position:

	2019	2018

	K'000	K'000
Assets		
Non-current assets		
Property, plant and equipment	1,330.00	1,260.00
Intangible assets	142.00	252.00
	1,472.00	1,512.00
Current assets		
Inventory	220.00	120.00
Trade Receivables	310.00	187.00
Bank	319.00	28.00
	849.00	335.00
Total Assets	**2,321.00**	**1,847.00**
Equity and liabilities		
Equity		
Equity shares of K0.50 each	384.00	210.00
Share premium	284.00	110.00
Revaluation surplus	120.00	-
Retained earnings	295.00	356.00
Total Equity	**1,083.00**	**676.00**
Liabilities		
Non-current liabilities		
Deferred Tax	46.00	156.00
25% Loan Note	860.00	620.00
	906.00	776.00
Current liabilities		
Trade payables	156.00	163.00
Taxation	26.00	154.00
Finance cost payable	150.00	78.00
	332.00	395.00
Total Liabilities	**1,238.00**	**1,171.00**
Total equity and liabilities	**2,321.00**	**1,847.00**

The following information is relevant:

1) Other income relates to profit on disposal of items of property, plant and equipment and intangible assets. The company did not acquire any items of property, plant and equipment and intangible assets.

2) Samala Limited had the following ratios for the year ending 31 December 2018:

• Return on capital employed	37%
• Net assets turnover	1.65 times
• Gross profit margin	70%
• Operating profit margin	23%
• Current ratio	0.85
• Inventory turnover	61 days
• Trade receivables collection period	28 days
• Trade payables payment period	83 days
• Gearing (prior charge capital/prior charge capital + equity)	48%

Required:

(i) Calculate the above ratios for the year ending 31 December 2019 for Samala Limited. (9 marks)

(ii) Assess the operational and financial performance and position of Samala Limited for the year ending 31 December 2019. (11 marks)

[Total: 20 Marks]

END OF PAPER

CA2.1 SUGGESTED SOLUTION

SOLUTION ONE

a) (i) **Chala Plc**

for the year ended 31 December 2017

	K'000
Revenue	2,280.00
Cost of sales **W4**	(996.00)
Gross profit	1,284.00
Investment income	32.00
Other income (340 - 320)	20.00
Distribution cost	(420.00)
Administrative cost **W4**	(544.80)
Finance cost 20% x 900 x 9/12	(135.00)
Profit before tax	236.20
Income tax **W5**	(179.00)
Profit for the period	57.20
Other comprehensive income:	
Revaluation gain 48**W1** – 3	45.00
Total comprehensive income	102.20

Total

(ii) **Chala Plc**

	Equity Shares K'000
Balances at 1 Jan. 2017	240.00
Total comprehensive income	
Dividends paid	
Issue of shares K0.8 x 300,000 shares	240.00
Balances at 31 Dec. 2017	480.00

(iii) **Chala Plc**

Assets
Non-current assets
Property, plant and equipment **W2**
Investment property
Deferred tax 140**W5** – 3

Current assets
Inventory
Trade receivables
Bank

Total Assets
Equity and liabilities
Equity shares K0.80
Share premium
Revaluation surplus
Retained earnings

Liabilities
Non-current liabilities
Obligations under finance lease **W3**
Bank loan

Current liabilities
Trade payables
Obligations under finance lease (56.78-18)
Accrued interest (135 - 108)
Taxation

Total equity and liabilities

Total

WORKINGS FOR QUESTION TWO

W1 Goodwill

	K'000
Dasa Plc	
Cost of investment 300 x 0.751	
Fair value of non- controlling interests	
Fair value of net assets acquired:	
Equity shares	228.00
Share premium	102.00
Retained earnings	5.00
Fair value adjustment - Plant	10.00
Fair value of net assets acquired	
Goodwill	
Less: Impairment	

Additional depreciation on FV adjust.
(10 x 2/5yrs)

W2 Deferred consideration

	K'000
Present value at 1 January 2016 **W1**	225.30
Unwinding of interest(yr1)@10%	22.53
Unwinding of interest(yr2)@10%	24.78
Value at 31 December 2017	272.61

W3 Investment in associate

	K'000
Cost of investment	79.00
Share of post acquisition retained earnings W4	16.00
	95.00

W4 Retained earnings

	K'000
Saama Plc	174.00
Share of post acquisition in:	
Dasa Plc 60% x [(-30-5) - {20% x (18 - 15)}URP-4W1]	(23.76)

Zava Plc [40% x (72-32)]	16.00
Goodwill impairment in Vala Plc (60% x 2)	(1.20)
Unwinding of interest (22.53+24.78)W2	(47.31)
	-
	117.73

W5 Non - controlling interests

	K'000
Dasa Plc	
Fair value at acquisition	150.00
Share of post acquisition:	
Retained earnings (40% x -39.6)	(15.84)
Goodwill impairment (40% x 2)	(0.80)
Total	**133.36**

b) It is clear from his comments that the Chairman of Paja Limited does not know the differences between the two bases of accounting, cash and accruals. The cash basis of accounting recognises revenues when cash is received and expenses when they are paid. Accruals basis of accounting on the other hand, revenues and expenses are recorded when they are earned, regardless of when the money is actually received or paid. Consequently, accruals method recognises accounts receivable or accounts payables which are not recognised under cash method of accounting. Cash basis of accounting shows a track record of how much the business actually has at any time while accrual accounting does not provide any awareness of cash flow.

c) Financial statements are of course useful in decision making. However, they have their own flaws and do not provide all the information which may be very useful in making an investment decision as can be seen in the following limitations associated with them:

- Financial statements are historical in terms of reporting. They report on transactions which have already taken place. They do not reflect conditions of the company prevailing at the time they are being prepared. For example, financial statements for the year ended 31 December 2017 will have to be prepared in 2018.

- Financial statements include estimates such as provisions for depreciation, site restoration cost which may be unrealistically high or low as they involve use of judgement. For example, assuming that a motor vehicle will have an economic useful life of 5 years for the purposes of calculating depreciation may not be realistic. This is because motor vehicles still remain useful even after being fully depreciated. Further, the number of drivers and their respective skills, lifestyles and experiences are ignored in determining the economic useful life of motor vehicles.

- Financial statements are not very informative as they may exclude non-financial information which may provide predictive characteristic needed by users of financial statements to make informed decisions. For instance, financial statements may not include information on quality of services or products being offered by the company. They may also not reflect the skill and education of the company's employees. These are some of the pieces of information needed by users of financial statements to determine the sustainability of the company's profitability.

- Financial statements may not be comparable across companies because of varying accounting policies adopted. One company may for example choose to subsequently measure its non – current assets using revaluation model of IAS 16 another may simply stick to the standard's cost model.

- Financial statements can easily be manipulated in order to portray good performance by the company. For instance, the directors may choose to inflate income or under state expenses in order to report a high profit or may decide to keep liabilities off their financial statements in the quest to improve gearing of the company and have access to cheaper sources of finance as it may be perceived to be a low risky company.

		K'000	**K'000**
d)	Disposal proceeds		600.00
	Less: Fair value of net assets	450.00	
	Unimpaired goodwill	80.00	
			530.00
			70.00

SOLUTION TWO

Saama Plc Group

	K'000
Assets	
Non-current assets	
Property, plant and equipment (968+600+10-4**W1**)	1,574.00
Investment in associate **W3**	95.00
Goodwill **W1**	28.30
	1,697.30
Current asset (447+312-0.6URP)	758.40
Total Assets	**2,455.70**
Equity and liabilities	
Equity	
Equity shares of K0.50 each	276.00
Share premium	126.00
Retained earnings **W4**	117.73
	519.73
Non - controlling interests **W5**	133.36
Total Equity	**653.09**
Liabilities	
Non-current	
Non-current liabilities (720+438 + 272.61W2)	1,430.61
Current liabilities (198+174)	372.00
Total Liabilities	**1,802.61**
Total equity and liabilities	**2,455.70**

Available

Maximum

WORKINGS FOR SOLUTION ONE

W1 Revaluation of property

	Building
	K'000
Valuation at 31 December 2016	720.00
Depreciation (K720,000/20yrs)	(36.00)
Carrying value at 31 December 2017	684.00
Revaluation surplus (bal. fig)	40.00
Valuation at 31 December 2017	724.00
Total revaluation surplus (40+20)	60.00
Transferred to administrative cost	
Transferred to other comprehensive income	

W2 Property, plant and equipment

	K'000
Property	
At valuation	
Plant and equipment	
At cost	600.00
Depreciation:	
Balance b/f	216.00
Charge for the year 20% x (600 - 216)	76.80
Balance c/f	292.80
Leased plant	
At fair value	180.00
Depreciation charge	-
Total	

W3 Finance lease obligation

	K'000
Fair value of asset at inception of lease	180.00
Interest @ 10%	18.00
Rental	(56.78)
Obligation after next 12 months	141.22

W4 Cost of sales & admin. Costs

	COS K'000
As per trial balance	960.00
Depreciation:	
Buildings W1	36.00
Plant and equipment W2	
Reversal of revaluation surplus	
	996.00

W5 Taxation

	K'000
Deferred tax asset:	
At 31 December 2016	156.00
At 31 December 2017 35% x 400	140.00
Decrease in deferred tax asset	
Current tax	
Under provision	

SOLUTION THREE

a) Loan of K600,000

The transaction of Lamana Plc should be treated in accordance with applicable accounting standards and Generally Accepted Accounting Practice.

It would have been appropriate to charge interest cost of K150,000 to the statement of profit or loss if no works were carried on the building the whole year to 31 December 2017. Interest will be capitalised based on amount of the loan spent on the building. This equals K120,000 in the year to 31 December 2017. The interest cost of K30,000 (K120,000 x 25%) should therefore be capitalised by adding it to the cost of the building. Interest cost of K120,000 (K150,000 – K30,000) is what should be charged to the statement of profit or loss for the year ended 31 December 2017.The treatment of borrowing costs is covered by IAS 23'*Borrowing costs*'.

b) The appropriate basis of preparing the financial statements of Bala Limited for the year ended 31 December 2017 is break-up basis of accounting as opposed to going concern. This is because the company is no longer in operational existence for the foreseeable future, that is, the next 12 months. Further, its assets will have to be realised to settle its obligations. Under the break – up basis of accounting assets are shown at their net realisable value. Historical cost accounting is no longer relevant.

c) Investment in Sada Limited

In identifying whether investment in Sada Limited is a subsidiary or an associate there is need to establish if Masano Plc has control or significant influence in Sada Limited. Control resulting in having a subsidiary is presumed if an entity has atleast 51% equity interests in another entity. In the case of Masano Plc, its equity interests in Sada Limited amounts to 30% (30,000/100,000). This shows that Sada Limited is not a subsidiary of Masano Plc given that information to the contrary is not provided. For an entity to be presumed to have significant influence in another entity, its equity interest in another entity should be at least 20% but less than 50%. Masano Plc has significant influence in Sada Limited. This is because its equity interest in the company is 30% and it has a representation on the board of directors of Sada Limited. Sada Limited is therefore an associate of Masano PLC.

d) Hala Plc

Statement of profit or loss (extract) for the year ended 31 December 2017

	K'000
Other income	
Government grant (K100,000/5yrs)	20

Hala Plc

Statement of financial position (extract) as at 31 December 2017

	K'000
Liabilities	
Non – current liability	
Government grant (K80,000 – K20,000)	60
Current liabilities	
Government grant (K100,000/5yrs)	20

e) Daya Plc

Consolidated statement of profit or loss (extract) for the year ended 31 December 2017

	K'000
Share of loss in Gana Plc (50% x K10,000)	(5)

Daya Plc

Consolidated statement of financial position (extract) as at 31 December 2017

Assets	
Non – current assets	
Investment in Gana Plc (K270,000 – K5,000)	265

f) Lakala Limited

Statement of profit or loss (extract) for the year ended 31 December 2017

	K'000
Expenses	
Insurance cost	3
Road tax	0.6
Depreciation (K145,000/5 years) x 9/12	21.75

Statement of financial position (extract) as at 31 December 2017

K'000

Assets

Non – current

Motor vehicle K145,000**W** – K21,750	123.25

Working – Calculation of initial cost of asset

	K'000
Total cost up to the border	80
Non – refundable duty	63
Freight charges	2
Total	**145**

SOLUTION FOUR

a) All transactions of Catala Plc should be treated in accordance with applicable accounting standards and Generally Accepted Accounting Practice.

Plant

Depreciation charge of plant can only be the same from one year to another if the period of use and value on which it is calculated are the same. With respect to the plant in question its value has to be reduced to its recoverable amount of K210,000. This is because the impairment review revealed that its recoverable amount of K210,000 is less than its carrying value of K240,000. This represents an impairment loss of K30,000 (K240,000 – K210,000) which should be charged to the statement of profit or loss for the year ended 31 December 2017. This is in accordance with IAS 36'*Impairment of assets*'. The correct depreciation charge for the year ended 31 December 2017 should be K70,000 (K210,000/3years). This is because the recoverable amount should be spread over the remaining useful life of 3 years {5years - [(K400,000 – K240,000)/(20% x K400,000)]}. (6 marks)

Inventory

Inventory should be recognised at the lower of cost and net realisable value in accordance with IAS 2'*Inventories*'. As such, the company can only show them at cost if it lower than net realisable value. Inventory in question has net realisable value of K88,000 and cost of K90,000. This means inventory should be reduced to net realisable value of K88,000 resulting in an inventory loss of K2,000 (K90,000 – K88,000). (2 marks)

Filling station

The filling station could be shown at the cost of K100,000 if the company did neither have legal nor constructive obligation to dismantle the filling station and restore the site to its original state. It is clear from the scenario that Catala Plc has a legal obligation to dismantle the filling station and restore the site to its original state as this was the condition for allowing the company to put up a filling station. The cost of the filling station should therefore include present value of the provision for dismantling and site restoration of K11,580 (K30,000 x 0.386). The same amount should be recognised as a liability on 1 January 2017. The provision should be increased to K12,738(K11,580 x 1.1). Increase in provision of K1,158(K12,738 – K11,580) will be charged to the statement of profit or loss for the year ended 31 December 2017. Catala should also recognise depreciation charge of K11,158[(K100,000+K11,580)/10years] to its statement of profit or loss. Lastly, the filling station will be shown at a carrying value of K100,422(K111,580 – K11,158) under non-current assets in the statement of financial position as at 31 December 2017. (6 marks)

b) The disclosures to the financial statements of Chasa Limited should possess the following qualitative characteristics:

- Understandability. The disclosures must be clearly presented. They should not conflict with items recognised in the financial statements and not be ambiguous.
- Relevance. Disclosures should influence decision of users of financial statements if they were omitted. The accountant should only include material disclosures which shade more light to items recognised on the face of financial statements.
- Reliability. Disclosures should be free from material error and bias, and not misleading. The accountant should not only include those disclosures portraying a positive performance of the company but also those portraying negative performance.
- Comparability. The accountant should not be materially changing the way the same item is disclosed from one period to another unless this provides more meaningful information to the users of financial information. (6 marks)

[Total: 20 marks]

SOLUTION FIVE

i) **Return on capital employed** = Profit before interest & tax x 100%
Capital employed
= 65+215/2,321-332 = **14%**

Net assets turnover = Sales/Capital employed = 1,660/1,989 = **0.83 times**

Gross profit margin = Gross profit x100%
Sales

= 1,060/1,660 = **64%**

Operating profit margin = Operating profit x100%
sales
= 280/1,660 = **17%**

Current ratio = Current assets/current liabilities
= 849/332 = **2.56**

Inventory turnover = Inventory x 365 days
Cost of sales
= (110/600) x 365 = **134 days**

Trade receivables collection period = Trade receivables x 365 days
Sales
= (150/1,660) x 365 = **68 days**

Trade payables payment period = Trade payables x 365 days
Cost of sales
= (130/600) x 365 = **95 days**

Gearing = Prior charge capital x 100%
Prior charge capital + equity
= 860/860+1,083 = **44%**

ii) Performance of Samala Limited for the year ended 31 December 2017.

Three broad areas will be looked at in evaluating the performance of Samala Limited for the year ended 31 December 2017. The first area is profitability and return on capital, the second is liquidity and the third is gearing.

Profitability and return on capital

The company's profitability has generally declined compared to the previous year. Return on capital employed has decreased from 37% to 14% representing a 66.26% decrease. This is attributable to a decrease in operating profit margin to 17% from 23%. This is mainly as a result of a decrease in gross profit margin from 70% to 64%. Further, the sales for the year to 31 December 2017 reduced from K2.4million to K1.66million. It seems the increase in credit period given to customers and strategy to buy from cheaper suppliers did not offset the negative effects of 20% increase in selling prices. Net assets turnover also reduced from 1.65 times to 0.83 times. This is due to an increase in capital employed as a result of revaluing of property, plant and equipment upwards as evidenced by revaluation surplus in the statement of profit or loss and other comprehensive income of K120million and the significant decrease in sales.

Liquidity

The company's liquidity has worsened overall despite current ratio showing a significant improvement from 0.85 to 2.56. This is largely owing to a material increase in bank balance from K28million to K319million. The cash is mainly from issuing additional equity shares, disposal of non-current assets and borrowings. These sources of funds are not sustainable in the long run if the company's operational performance does not improve. Increase in selling prices has increased inventory turnover period from 61 days to 134days. Trade receivables collection period has increased from 28 days to 68days. This has been used as a strategy to boost sales though yet to come to fruition. As a consequence of increasing trade receivables period, the company's trade payable payment period had equally increased from 83 days to 95 days. The increased trade receivables collection period may result in an increase in irrecoverable debts. The increased trade payables payment period may lead to a company not taking up cash discounts and having an increase in its purchases as a result. This could further decrease its profitability in the long run.

Gearing

The gearing ratio shows a decrease to 44% from 48% despite additional borrowings during the year. This is largely attributable to increase in equity relating to revaluation surplus and issue of additional equity shares.

Conclusion

The company's overall performance has declined. The directors of the company need to consider the long term effect of their strategies on the future of the company. They might have to reverse some of the strategies if they have not yielded what they envisioned at their formulation.

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 10 DECEMBER 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.

<u>QUESTION ONE</u> – (COMPULSORY)

Falcon Ltd is preparing budgets for the three months January to March 2019. The following information has been provided:

1. Sales for January are expected to be K140,000 and increase by 10% in February by 5% of February's total in March and by 20% of March's total in April. 25% of total sales are paid for in the month of sale, 55% in the following month and the remainder in the month after that.

2. Debtors at 31 December 2018 are estimated to be K160,000. Of these, K120,000 are expected to pay in January, 5% will be bad debts and the balance will pay in February. No other bad debts are expected to be incurred for the period January to March 2019.

3. The company has a gross profit margin of 25% and purchases are made one month before the month of sale. Suppliers allow a credit period of 30 days.

4. Administration and distribution expenses are expected to be K17,000 each month. Of these, K1,000 each month consists of a depreciation provision. The remaining expenses are paid for in the month that they are incurred and at an even monthly rate.

5. Rent is K12,000 per annum and is paid quarterly in arrears on 31 March, 30 June, 30 September and 31 December each year.

6. The company will have an overdraft balance of K216,000 on 1 January 2018. Interest is calculated at 1% per month, calculated on the closing balance at the end of each month and paid on the opening day of the following month.

7. A share issue will take place on 1 February 2019 of 100,000 K1 ordinary shares payable in full by 28 February 2019.

Required:

(a) Prepare a cash budget for Falcon Ltd for the three months to 31 March 2019. (10 marks)

(b) Prepare a budgeted Income Statement of Falcon Ltd for the three months ending 31 March 2019. (6 marks)

In the month of April 2018, the company manufactured its product using a system of standard costing to control costs. The standard cost for the product is as follows:

		K
Direct materials	0.50 m^3 @K150 per m^3	75.00
Direct labour	30 minutes @K10 per hour	5.00
Fixed overhead	30 minutes @K6 per direct labour hour	<u>3.00</u>
Total cost		<u>83.00</u>

Fixed overhead absorption rates are based upon budgeted monthly fixed overheads of K24,000 and monthly output of 8,000 units. All inventories are recorded at standard cost.
In April 2018, the company manufactured 9,000 units using 5,000 cubic metres of direct materials. Purchases for the month were 6,000 cubic metres at K140 per cubic metre. 4,750 direct labour hours were worked at K10.50 per hour. Actual fixed overheads for the month were K23,500.

Required:

(c) Calculate the following variances for the month of April 2018:
(i) Raw material price
(ii) Raw material usage
(iii) Labour rate
(iv) Labour efficiency
(v) Fixed overhead expenditure
(vi) Fixed overhead volume
(9 marks)

(d) (i) Explain the apparent contradiction indicated by the two labour variances calculated above. (4 marks)

(ii) Explain how standard costing is used as a system for recording and reporting costs**.** (4 marks)

(e) Discuss four essential requirements of information provided by a management accounting system. (7 marks)

[Total:40 Marks]

SECTION B

Attempt any Three (3) out of four (4) questions.

QUESTION TWO

Mwinilunga Ltd (M Ltd) is engaged in the canning of two types of pineapple brands; Chunk (C) and Smooth (S). It processes and cans these two brands using the same production methods and equipment. M Ltd currently determines its prices by adding a certain mark-up to the budgeted full cost of the system. The fixed overheads are absorbed on the basis of labour hours.

The following data is provided for the two product brands.

	Chunk Brand	Smooth Brand
Production and sales demand	2,500	7,500
Direct material per unit	K60	K24
Labour costs per hour	K8	K3.2
Labour hours per unit	5 hrs	5hrs
Total direct labour hours	12,500	37,500

The Directors of M Ltd are considering assigning overheads to products thereby improving the accuracy of product pricing. After analysing the cost accounting data, the management accountant has come up with the following activities, budgeted cost pools and activity drivers.

Cost Pool	**Cost Driver**
Set ups	Number of set ups
Materials handling and despatch	Number of Order executed
Stores receiving	Number of requisitions raised
Machine running	Machine hours

Total production overheads are K1,000,000 and are further analysed as follows:

Costs relating to set-ups	15%
Costs relating to material handling & despatch	3.75%
Costs relating to stores receiving	6.25%
Costs relating to machine running	75%
	100%

The following total activity volumes are associated with each product line for the period as a whole:

Product	Number of Set Ups	Material Handling & Despatch	Stores Receiving	Machine Running
C	100	2,500	2,500	25,000
S	50	5,000	3,750	50,000
	150	7,500	6,250	75,000

Required:

(a) Calculate the product cost per unit using the current basis. (4 marks)

(b) Calculate the product cost per unit using ABC. (8 marks)

(c) Compare and comment on the costs computed under the current system and the ABC system. (4 marks)

(d) Explain the importance of flexing budgets in performance management. (4 marks)

[Total: 20 Marks]

QUESTION THREE

(a) Suba Zosala (SZ) Plc manufactures a chemical product and has been worried for some time that the product is wrongly priced. Currently the product price is K9.94 per unit. This price was arrived at by calculating an estimated cost of production (including fixed overheads) and adding a mark-up for profit of 40%. The calculations are as follows for the year 2017

	K
Materials 3 litres x K1.30 per litre	3.90
Labour 0.20hrs x K4.0 per hour	0.80
Variable Overheads per unit	1.40
Fixed Overheads (K80,000 ÷ 80,000 units)	1.00
Total unit cost	7.10
Profit (40% x K7.10)	2.84
	9.94

In producing a price for the coming year, 2019, SZ Plc, estimates that material prices will rise by 20%, labour cost by 10%, variable overheads by 10% and fixed overheads by 20%. It was felt that, considering these price rises of input resources, the profit percentage should be reduced to 35% because customers may not be prepared to accept a huge rise in price. Even so, it is considered that sales might be only 75,000 units instead of 2018 sales of 80,000 units.

Required:

(i) Using the cost plus pricing basis, calculate a selling price for the coming year, 2019. (6 marks)

(ii) Calculate the profit which will be achieved if the expected activity of 75,000 units is achieved. (2 marks)

(iii) Calculate the break-even sales level in units. (3 marks)

(iv) Calculate what percentage change in the forecast for materials cost would be required to bring the profit figure below K200,000 if the selling price is kept at the figure found in part (a), all other costs remaining constant, and sales of 75,000 units are achieved. (4 marks)

(b) SZ Ltd is thinking of employing a more advanced method of determining sales price and asks for assistance from Unilus Analytica, a firm of marketing consultants. The firm carries out a market survey and comes up with the following sales forecasts given a range of sales prices.

Selling prices per unit (K)	Sales demand (in units)
8.98	140,000
9.98	100,000
10.98	80,000
11.18	75,000
11.31	70,000
11.98	60,000
12.98	40,000

Required:

Using this price/demand relationship above:

(i) Determine the profit that would be made at each of the selling prices. State the optimum selling price and optimum sales demand. (4 marks)

(ii) Calculate the difference in profit if this price is selected rather than the price calculated in part (a). (1 mark)

[Total: 20 Marks]

QUESTION FOUR

Lerato Ltd (L Ltd) had nearly completed an order for a client when it discovered that its client had gone out of business. After searching, the marketing director has finally found a potential customer who will buy the product if certain conversion work is done.

L Ltd has already spent K40,000 on the product. Additional modification/conversion work had been collected as follows:

	K	Note
Estimated material cost required at cost	4,000	1
Direct labour (six workers required)	5,000	2
Variable overhead	800	3
Depreciation (monthly)	2,000	4
Site supervisor	300	5
General fixed production overhead	1,750	6
Machine hire	3,500	7
	17,350	

Note 1: the materials which are to be used are in inventory. The material could be used in the production of another product in place of material that the company would otherwise have to purchase at a cost of K8,000.

Note 2: To complete the conversion, six workers would be required. They would be taken from a department which is currently working below capacity.

Note 3: This cost will be incremental to the desired conversion cost.

Note 4: Machinery which was bought nine years ago for K240,000 and has a life of ten years will be used. Depreciation is spread on a straight-line basis.

Note 5: A site supervisor currently employed by L Ltd will be used. 8% of his time will be spent on this conversion. His current salary is K5,000 per month.

Note 6: The general fixed overheads are absorbed at a rate of 35% of direct labour.

Note 7: It will be necessary to hire a specialist machine for this conversion. In total the conversion will require the machine for seven days but it is difficult to predict which day would be needed within the month (see note 8 below). One option is to hire the machine for the whole month at a cost of K600 and then sublet it for K100 a day when its not required by L Ltd. L Ltd estimates that it would be able to hire the machine for 21 days. As an alternative, L Ltd can hire the machines on the days it needs the machine and the hirer would guarantee its availability at a cost of K500 a day.

Note 8: The conversion will take one month to complete.

Note 9: If the conversion does not take place, the nearly completed product can be sold for scrap for K2,000.

Note 10: L Ltd's policy is to price its product at 30% mark-up on cost.

Required:

(a) Prepare a statement that shows the relevant cost of the conversion product that L Ltd should quote to the new customer. For each of the resources indicated in notes (1) to (10), give reasons for inclusion or exclusion of the items in your calculations.

(14 marks)

(b) Performance measurement in the public sector has traditionally been perceived as presenting special difficulties. Explain six (6) problems that make it difficult to measure performance in the public sector. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

The social services department of Vubwi City Council decided to implement a system of devolved budgeting. Prior to this implementation, budget preparation had been largely centralised with budget inputs coming from the director. This pre-empted a non-executive director who chairs the finance committee of the city council board to comment as follows:

"Budgeting is too often looked upon from a purely mechanistic viewpoint. The human factors in budgeting are more important than the accounting techniques. The success of a budgetary system depends upon its acceptance by the company employees who are affected by the budgets. No wonder employees fear implementing modern manufacturing philosophies such as Just-In-Time techniques."

Required:

(a) (i) Explain why incremental budgeting might not be appropriate as a basis of budgeting if budgetary slack is to be minimised. (4 marks)

(ii) Explain the conditions that should be available if JIT is to be implemented in a manufacturing organisation. (5 marks)

(iii) Outline the objectives of budgetary control. (4 marks)

(iv) Distinguish between product costs and period costs. (4 marks)

(v) The traditional methods of cost allocation, cost apportionment and absorption into products are being challenged by some writers who claim that much information given to management is misleading when these methods of dealing with fixed overheads are used to determine product costs.

Required:

(b) Explain what is meant by cost allocation, cost apportionment and absorption.

(3 marks)

[Total: 20 Marks]

END OF PAPER

CA2.2 SUGGESTED SOLUTIONS

SOLUTION ONE

Part (a)

Cash budget for the three months to March 2018

	Jan	Feb	Mar
	K	**K**	**K**
Sales (w1)	155,000	147,500	153,125
Share issue		100,000	
Total income	**155,000**	**247,500**	**153,125**
Purchases (w2)	105,000	115,500	121,275
Administration and distribution	16,000	16,000	16,000
Rent			3,000
Overdraft interest	2,160	1,842	700
Total expenses	**123,160**	**133,342**	**140,975**
Net income/(expenditure)	31,840	114,158	12,150
Bal b/fwd	-216,000	-184,160	-70,002
Bal c/fwd	-184,160	-70,002	-57,852

Workings		Dec	Jan	Feb	Mar	Balance
1. Sales						
Dec	160,000		120,000	32,000	8,000	Write-off
Jan	140,000		35,000	77,000	28,000	
Feb	154,000		38,500	84,700		
March	161,700				40,425	
April	194,040					
Sales cash received			155,000	147,500	153,125	

2. Purchases

Creditors (75% of next month's sales Paid 1 month after purchase Purchased 1 months before sale)

Jan 140,000 x 75%	105,000
Feb 154,000 x 75%	115,500
March 161,700 x 75%	121,275

Part (b)

Income Statement for the 3 months ending 31 March 2015

K

Sales (140,000 + 154,000 + 161,700)		455,700	
Cost of sales (455,700 x 75%)		341,775	
Gross profit (25% of K455,700)		113,925	
Less:			
Administration and distribution (3 x 17,000)		51,000	
Rent		3,000	
Bad debts		8,000	
Overdraft interest (1,842 + 700 + (57,852 x 1%)		3,121	
Net profit		**48,804**	

Part (c) (1.5 marks x 6 variances) max 9 marks

(i) Raw material price		K	
Standard - 6,000 cubic metres x K150			900,000
Actual - 6,000 x K140			840,000
Variance			60,000 Fav
(ii) Raw material usage		K	
Standard - 9,000 units x 0.50	4,500		
Actual	5,000		
Variance500 x K150 =K75,000Adv			
(iii) Labour rate			
Standard - 4,750 x K10			47,500
Actual - 4,750 x K10.50			49,875
Variance2,375 Adv			
(iv) Labour efficiency			
Standard- 9,000 x 0.50	4,500		
Actual - 9,000	4,750		
Variance250 x K10 = K2,500Adv			
(v) Fixed overhead expenditure			
Budgeted			24,000
Actual			23,500
Variance500 Fav			
(vi) Fixed overhead volume			
Budgeted units	8,000		
Actual units	9,000		
Variance1,000 x K3 = K3,000 Fav			

Part (d) i)

An adverse labour rate variance usually leads to a favourable efficiency variance.
In this case, the adverse materials usage variance and favourable materials price variance suggests that inferior raw materials were purchased resulting in production taking longer hence the adverse labour efficiency variance.

Part (d) ii

- A standard unit cost is calculated for each type of product or service
- Costs are recorded in the costing system at standard cost rather than at actual cost
- Actual costs incurred and actual profits earned are compared with standard costs and budgeted profits
- Any differences are reported to management as variances
- Management then decides which variances to investigate

Part (e)

A management accounting system should provide information which is:

- Relevant: All information provided should relevant to its purpose and not contain details that can be ignored. It should be clear to the recipient as to what he is expected to do with the information

- Timely: It should be provided to a manager in time for the manager to act upon it. Old information becomes irrelevant to the current situation

- Understandable: A manager must be able to understand the information being provided to him. A lack of understanding will not help him to make a decision; misunderstanding it might lead to a bad or incorrect decision. It should also be free from unnecessary jargon

- Accurate: Accuracy is important but not unless cost is kept to a minimum. Complete accuracy is costly and can often disguise true trends. Complete accuracy is often only necessary when it comes to establishing the cost of a single unit.

- Communicated: Information should be communicated to the right manager who must be able to both use and do something with it. There is no value in communicating information to a manager who has no control over it.

SOLUTION TWO

a) Product Cost per Unit Using Current Basis

	C Brand	S Brand
	K	K
Direct Material	60	24
Direct Labour (5hrs x K8/K3.20)	40	16
Overheads (W.1) (5hrs/5hrs x K20)	100	100
Product cost per unit	200	140

Workings

W.1 Overhead Absorption rate = $\frac{K1,000,000}{(12,500+37,500)}$

$= \frac{K1,000,000}{50,000\ DLH}$

= K20/DLH

b) Product cost Per Unit Using ABC

	C Brand	S Brand
	K	K
Direct Material	60	24
Direct Labour	40	16
Overheads (W.3)	155	81.67
	255	121.67

Workings

W.2 Overhead Cost Pool Analysis

Set ups	15% x K1,000,000 =	K150,000
Material Handling	3.75% x K1,000,000 =	K37,500
Stores Receiving	6.25% x K1,000,000 =	k62,500
Machine Running	75% x K1,000,000 =	K750,000
		K1,000,000

M.3 Overhead Analysis

Cost Pool	Share Basis	C (K)	S (K)	Total (K)
Set Ups	100:50	100,000	50,000	150,000
Material Handling	2,500:5,000	12,500	25,000	37,500

Stores Receiving	2,500:3,750	25,000	37,500	62,500
Machinery Running	25,000:50,000	250,000	500,000	750,000
Total		387,500	612,500	1,000,000
		÷	÷	
Production Units		2,500	7,500	
		K155/units	K81.67/units	

c) Even though both the models have widely different cost driven activities, the overhead cost per unit is the same for both models, i.e. K100 according to the traditional method. This is because the overhead costs are allocated on the basis of labour hours and the activities which have a cause-effect relationship with the overheads are ignored. For example, the company recorded 100 setups for the Chunk brand and 50 setups for the Smooth brand.
As the ABC system used the cost of each activity as the basis for assigning costs to the model, the ABC system has come up with more realistic product costs. The overhead cost of the Chunk brand has gone up by K55 whereas the overhead cost of the Smooth brand has fallen by K18.33. Therefore, it is appropriate to use the activity based costing method for allocating overhead costs to the products.

d) Importance of flexing budget in performance management
A flexed budget is a form of a master budget, which shows the effect of changes in volume on cost structures. Hence, a flexible budget can be used at any output level. A flexed budget therefore helps to estimate how revenue and costs should behave over a range of production volume.

A flexible budget need not necessarily be relevant only for a specific period of time. They can be used either before or after a specific period. This can help managers to make decisions with regards to the volume of production for planning purposes. It can also assist managers in analysing the actual results at the end of the period.

A flexed budget helps to make important comparisons between actual costs incurred and a realistic budget allowance for costs. In a flexible budget, each item of costs is evaluated into fixed and variable elements. When the actual activity level is known, the budget can be flexed to produce a standard cost allowance against which actual costs can be legitimately compared. Unless the actual level of activity is equal to the budgeted level, a fixed budget cannot be used effectively for control purposes. Hence, flexible budgets are helpful for control.

SOLUTION THREE

a)

i. Selling price

	K
Materials (K3.90 x 120%)	4.68
Labour (K0.80 x 110%)	0.88
Variable Overheads (K1.40 x 110%)	1.54
Marginal cost per unit	7.10
Fixed Overheads (K80,000x120% ÷ 75,000)	1.28
Total cost per unit	8.38
Profit (35% x K8.38)	2.93
Selling price per unit	11.31

ii. Budgeted profit for 75,000 units

	K
Selling price per unit	11.31
Cost per unit	(8.38)
Unit profit	2.93
	x
Sales demand	75,000
Budgeted profit	K219,750

iii. Break-even point in units.

$$B.E.P = \frac{Total\ Fixed\ Cost}{Contribution\ per\ Unit}$$

$$= \frac{K80,000\ x\ 120\%}{(K11.31 - K7.10)}$$

= 22,803 Units

iv. Sensitivity Factor of Material Cost

Budgeted profit	K219,750
Required minimum profit	K200,000
∴Fall in profit	K19,750

Profit would fall below K200,000 if material costs were to rise by more than K19,750.
Total budgeted material cost = 75,000 x K4.68
= K351,000

$\therefore$ % change = $\frac{K19,750}{K351,000}$ x 100%
= 5.63%

b) (i) Optimum selling price and optimum demand

Selling Price	Sales Demand ('000 Units)	Contribution/unit	Total Contribution K'000	Fixed cost	Total Profit K'000
K8.98	140	K1.88	263.20	80	183.20
K9.98	100	K2.88	288.00	80	208.00
K10.98	**80**	**K3.88**	**310.40**	**80**	**230.40**
K11.18	75	K4.08	306.00	80	226.00
K11.31	70	K4.21	294.70	80	214.70
K11.98	60	K4.88	292.80	80	212.80
K12.98	40	K5.88	235.20	80	155.20

The Optimum price and quantity are K10.98 and 80,000 units, respectively.

(ii) Difference in profit

Price	**Profit**
K10.98	K214,400
K11.31	K203,600
Difference in profit	K10,800

SOLUTION FOUR

a) Relevant Cost of Converted Product

	Note	K
Direct material	1	8,000
Direct labour	2	0
Variable overhead	3	800
Depreciation	4	0
Site supervisor	5	0
General Fixed production overhead	6	0
Machine hire	7	(1,500)
Scrap proceeds foregone	9	2,000
Relevant cost or minimum price		9,300

Note 1: The original material in inventory is a sunk cost and not relevant. The relevant cost is the opportunity cost of the saving foregone on the other materials which now have to be purchased for K8,000. The material could have been used elsewhere.
Note 2: Direct labour cost is irrelevant. The workers would be paid even if the conversion work was not undertaken.
Note 3: the variable overhead cost is relevant: it is incremental and specifically incurred on the conversion.
Note 4: Depreciation is not a cashflow and, therefore, irrelevant. The original cost, the remaining life and depreciation policy are irrelevant.
Note 5: the site supervisor is already being paid. His salary is not incremental to the conversion work and therefore, irrelevant.
Note 6: The absorbed overhead is not relevant: general overheads are not incremental.
Note 7: The relevant cost is the lower of the 7 days hire and monthly hire less 21 days sub-hire costs:

7 days hire: 7 x K500/day = K3,500

Hire & sub-hire: K6,000 – (100 x 21) = (K1,500)

Note 8: The conversion period is for information.

Note 9: If the product is converted, K2,000 scrap proceeds be foregone. So this is an opportunity cost.

Note 10: The 30% mark-up policy is not relevant because only a minimum price is required and profit is not a cashflow.

The K40,000 already spent is irrelevant to the decision whether to convert the product or not.

b) Problems with performance measurement in non-profit seeking organisations

(a) Multiple objectives

Non-profit seeking organisations tend to have multiple objectives, so that even if they can all be clearly identified it is impossible to say which is the overriding objective.

(b) Measuring outputs

Outputs can seldom be measured in a way that is generally agreed to be meaningful. (For example, are good exam results alone an adequate measure of the quality of teaching?)

(c) Lack of profit measure

If an organisation is not expected to make a profit, or if it has no sales, indicators such as ROI and RI are meaningless.

(d) Nature of service provided

Many non-profit seeking organisations provide services for which it is difficult to define a cost unit. For example, what is the cost unit for a local fire service? This problem does exist for commercial service providers but problems of performance measurement are made simple because profit can be used.

(e) Financial constraints

Although every organisation operates under financial constraints, these are more pronounced in non-profit seeking organisations. For instance, a commercial organisation's borrowing power is effectively limited by managerial prudence and the willingness of lenders to lend, but a local authority's ability to raise finance (whether by borrowing or via local taxes) is subject to strict control by central government.

(f) Political, social and legal considerations

(i) Unlike commercial organisations, public sector organisations are subject to strong political influences. Local authorities, for example, have to carry out central government's policies as well as their own (possibly conflicting) policies.

(ii) The public may have higher expectations of public sector organisations than commercial organisations. A decision to close a local hospital in an effort to save costs, for example, is likely to be less acceptable to the public than the closure of a factory for the same reason.

(iii) The performance indicators of public sector organisations are subject to far more demanding legal requirements than those of private sector organisations.

SOLUTION FIVE

a)

i. Incremental budgeting is a system of budgeting that starts with the current year's budget and 'builds' on this to produce the budget for next year. There is no attempt at questioning the activities undertaken or the costs incurred in undertaking them. Most often the values are simply adjusted for inflation and for any known changes in the activity level for the next period.

Incremental budgeting is hence a rather unquestioning approach which allows budget holders and/or budget preparers to build in budget slack so that they will not be criticised but will rather be praised simply for achieving an unchallenging budget.

Unnecessary expenditure or budget slack is perpetuated in the budget and there is a continuing incentive to spend the budget, even if it is not required, otherwise the budget holder might not be allocated the same resources in the budget for the next period.

ii. A number of conditions are necessary for the successful implementation of a JIT manufacturing system. .

- Accurate production scheduling. In order to avoid the build-up of finished inventory, it is important that production is undertaken only in accordance with demand. Each stage of production needs to be responsive to the next process in line, and produce in accordance with their requirements. This requires very careful, constant monitoring, which means that the information systems must be accurate and properly applied.

- Staff training and empowerment. Being flexible and responsive to the 'internal customer' as above is something that may not come naturally to all staff members. Therefore some training in team working might be necessary. Workers should feel empowered to behave in the way that is most desirable.

- Plant and equipment must be regularly inspected and maintained. The JIT system cannot afford any downtime due to unreliable machinery.

- Long term relationships with suppliers. Relationships with suppliers should be based on their reliability and the quality of their supply. Price will often become a secondary consideration. They should ideally be holders of ISO certificates. Since no buffer inventories are held there is no room for a breakdown in supply or the delivery of sub-standard items.

- Quality control. Since no spare inventories are kept there would be a requirement for 100% quality at all stages in the production process.

iii. The objectives of budgetary control are as follows.

- To compel managers to plan their activities into the future

- To establish a system of control by having a plan against which actual results can be continuously compared
- To co-ordinate the activities of all parts of an organisation into one master plan
- To motivate management to achieve better results through their participation in the budgetary process
- To communicate the policies and targets to every manager in the organisation responsible for carrying out a part of the budgetary plan

iv. Product costs are those costs that are identified with goods purchased or produced for resale. In a manufacturing organization they are costs that the accountant attaches to the product and that are included in the inventory valuation for finished goods, or for partly completed goods (work in progress), until they are sold; they are then recorded as expenses and matched against sales for calculating profit.

Period costs are those costs that are not included in the inventory valuation and as a result are treated as expenses in the period in which they are incurred. Hence no attempt is made to attach period costs to products for inventory valuation purposes.

In a manufacturing organization all manufacturing costs are regarded as product costs and non-manufacturing costs are regarded as period costs. Companies operating in the retailing or wholesaling organizations, purchase goods for resale without changing their basic form. The cost of the goods purchased is regarded as a product cost and all other costs such as administration and selling and distribution expenses are considered to be period costs. Both product and period costs are eventually classified as expenses. The major difference is the point in time at which they are so classified.

v. Cost allocation is the process by which whole (discrete and identifiable) cost items are charged directly to a cost unit or cost centre. In the case of overhead costs, overhead cost items are charged direct to various overhead cost centres.

(ii) Cost apportionment is the process by which cost items, or cost centre costs, are divided between several cost centres in a 'fair' proportion based on the estimated benefit received. A fair basis for apportioning overheads of the machine maintenance department might be the number of maintenance hours in the benefiting centres.

(iii) Absorption is the process whereby costs of cost centres are added to unit, job or process costs. Overheads absorption rates are generally calculated thus:

OAR = $\frac{Total\ Budgeted\ Overheads\ Costs}{Total\ Budgeted\ Activity}$

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 12 DECEMBER 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.

QUESTION ONE

Warthog Ltd. is a private company in the hospitality industry. Up until the current year, the company was privately owned by Chris and his wife who jointly owned 100% of the shares.

In the current year, the dual decided to sell the company to a competitor who will own 75% of the shares while they will retain a minority 10% interest. The remaining shares will be sold to the public on the Lusaka Stock Exchange.

Warthog Ltd. has a board of Directors comprising Executive Directors who include Chris the Chief Executive Officer and his wife, the Hotel Manager and the Finance Manager. The board of directors determines the remuneration of the Executive Directors who currently are on five year contracts with fixed salaries. The acquirers of Warthog Ltd have indicated that Chris will be the first Board Chairman of the listed company and until a new Chief Executive Officer is appointed he will also continue with his current role as Chief Executive Officer.

Arrangements to have the shares of Warthog Ltd. listed have reached an advanced stage and the company will be required to meet the listing requirements including matters relating to corporate governance.

The new shareholders of Warthog Ltd. have approached your firm of Chartered Accountants for assistance with regards promoting and dealing with the shares of Warthog Ltd. that will be issued. They have further requested that your firm of Chartered Accountants should evaluate the adherence of Warthog Plc. with the principles of corporate governance and where appropriate make recommendations that should be considered in order to meet the listing requirements. The new owners want your firm to review the current internal controls in Warthog Ltd paying particular attention to internal controls relating to Cash, Bank Balances, Procurement of materials and inventory controls.

The following additional information has been provided:

The company runs a 100 room hotel with rooms ranging from single rooms, double rooms and executive rooms. The daily rates per room vary depending on the type of room. The company offers accommodation to visitors who pay cash for duration of stay and payment is made on checking in for the rooms and at checking out for food and refreshments. The majority of the cash customers make payment in cash while the rest use credit cards. In an effort to boost revenue in the current year, the board of Directors has approved the giving of a 40% rebate for rooms to its corporate customers. The rebates have been extended to the audit team members for duration of the audit only.

The hotel offers credit terms to some corporate customers who pay for services offered at the end of each month. Currently the decision as to which customers should enjoy credit is made by the hotel accountant. Credit customers deposit money directly into the bank account of the hotel the hotel currently does not have a receivable ledger and the hotel accountant maintains a list of outstanding amounts from credit customers. Bank reconciliations are prepared by the hotel accountant on a quarterly basis and are filed away for review by Chris when he has the time to do so.

The hotel employs a purchasing officer who is responsible for the procurement of all the hotel requirements. There is a stores under the responsibility of a stores officer whose main responsibilities include custody and accounting for all stores and requirements of the hotel.

Your firm of Chartered Accountants offers audit and non-audit services. In addition to requesting your firm to perform the non-audit services above, the new owners of Warthog Ltd have intimated to you that they would want your firm to offer external audit services of the now Warthog Plc.

Required:

(a) Suggest three (3) each suitable controls in Warthog Ltd. relating to cash on hand, bank balances and the purchases and inventory systems. (9 marks)

(b) Evaluate the function of the Board of Warthog Ltd. in terms of adherence with the UK Corporate Governance Code regarding:

- (i) Leadership (2 marks)
- (ii) Effectiveness (2 marks)
- (iii) Accountability (2 marks)
- (iv) Remuneration and (2 marks)
- (v) Relations with shareholders (2 marks)

(c) (i) Explain four(4) advantages of a principles based conceptual framework rather than rules for professional ethics. (4 marks)

(ii) Identify the ethical issues in Warthog Ltd. and suggest suitable safeguards that should be applied. (6 marks)

(d) (i) Distinguish fraudulent financial reporting from misappropriation of assets giving two (2) suitable examples for each. (5 marks)

(ii) Identify and explain the fraud risk factors in Warthog Ltd. (6 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

Mutinta and Mable are in partnership running a cleaning services company. This company has grown over the years with a turnover of over K4 million. Mable is in fulltime employment and is not involved in the day to day running of the business.

Mutinta is fully involved in the day to day running of the company and she has a complement of ten full time employees. From its inception the business has not been subject to external audits because the two partners feel this is a cost that can be avoided especially that Mutinta who is one of the owners is responsible for running the company.

An international cleaning company has offered to buy and takeover the business of Mutinta and Mable. They have been offered $2 million and they are seriously considering accepting the offer. The company that wishes to take-over the business has requested that the latest financial statements of the cleaning company be audited by independent auditors. Subject to an unmodified opinion being issued the deal will be sealed.

The new prospective owners of the company would wish to grow the company and they hope to achieve this through being a good corporate citizen and also promote the 'green revolution' by ensuring that the company will not cause damage to the environment through its activities. The new owners will be looking for auditors who can perform social and environmental audits in addition to audits of financial statements.

Mutinta is worried that the external auditors may require disclosure of confidential information relating to the business. She is of the view that the two would only agree that an external audit be performed if only financial information will be requested by the auditors. She does not understand the meaning of an unmodified opinion and would like this to be explained to her.

Required:

(a) Explain four (4) benefits of an external audit of the financial statements of a business such as the partnership run by Mutinta and Mable. (4 marks)

(b) Explain four(4) rights of the auditors in an audit of financial statements. (6 marks)

(c) Explain the social and environmental audits suggesting reasons why these would be beneficial to the client company. (6 marks)

(d) Explain four (4) matters that are implied in an unmodified audit opinion of financial statements in accordance with the Company's Act 1994. (4 marks)

[Total: 20 Marks]

QUESTION THREE

Your firm of Chartered Accountants has been auditor of Bear Ltd for the past three years. At the time of accepting appointment as auditors of Bear Ltd the preconditions for an audit existed in Bear Ltd and as per requirement a letter of engagement was issued by your firm.

Previously, Bear Ltd had been audited by BST Chartered Accountants. The company terminated the services of BST Chartered Accountants three years ago at the time when your firm became auditor of Bear Ltd.

Management of Bear Ltd has invited your firm for a meeting with the audit committee to discuss matters of concern arising from the work your firm has been performing in the last three years.

Your partner in the firm has assigned you to attend the meeting on his behalf. He is concerned that your clients have reduced in the last two years and he has requested you to draft an advertisement for the services that your firm offers for discussion with him as soon as you return from the meeting with the audit committee of Bear Ltd.

You established the following information during the meeting with the audit committee:

The audit committee of Bear Ltd have expressed concern that the previous auditors did not perform any work regarding internal controls. Further, Bear Ltd experienced a fraud during the time that BST Chartered Accountants were the auditors. Management was not pleased that the fraud was only discovered after the audit and the audit report made no mention of the fraud in the audit report even after it was brought to their attention. This is partly the reason why Bear Ltd removed BST Chartered Accountants from being their auditors. The audit committee and the main board are concerned that the approach to the audit by your firm is similar to that of the previous auditors and that in the last three years they have not seen much work that your firm has performed with regards internal controls and prevention of fraud.

One of the non-executive directors in the audit committee stressed that it is high time that auditors take responsibility for their work. He wishes that unlike the previous auditors your firm should provide absolute assurance on the credibility and quality of the financial statements and that your firm should as part of the audit review the existing internal controls of the company and make recommendations where the controls are lacking.

Bear Ltd has experienced increased growth over the last few years. This is attributed to the fact that the company took over a competitor company which was going through financial difficulties. Bear Ltd agreed as part of the conditions of the takeover that three senior managers of the company taken over will be part of the new management team and this resulted in the retirement of three senior existing managers of Bear Ltd.

Recently a major amendment to the act that regulates the industry that Bear Ltd is in was revised by parliament. A copy of the act was made available during the meeting and it was observed that there are new reporting requirements which must be adhered to by companies in this industry.

Required:

(a) State four (4) factors supporting the argument that auditors can only give a reasonable assurance and not absolute assurance on the financial statements of Bear Ltd.

(4 marks)

(b) Evaluate whether the preconditions for an audit exist in Bear Ltd in deciding whether or not to accept appointment as auditors. (4 marks)

(c) Briefly explain the importance of an engagement letter by the auditor and explain five (5) matters that will be contained in the engagement letter. (6 marks)

(d) Using the information in Bear Ltd, suggest four (4) reasons why a new engagement letter may be appropriate to Bear Ltd. (4 marks)

(e) Briefly state (4) ethical matters with regards advertising of services offered by your firm that you will consider in drafting an advertisement for discussion with your partner.

(2 marks)

[Total: 20 Marks]

QUESTION FOUR

You are the Audit Senior in a firm of chartered accountants called Chienge Associates. You are responsible for the audit of the financial statements for Nzonzi Plc for the year ended 30 June 2019 and you are currently evaluating the Internal Audit function. The Directors of Nzonzi Plc have asked whether you will use the work of Internal Audit function. They also want to know what impact the reliance will have on the External Audit.

Nzonzi Plc is a public company which is listed on the Lusaka Stock Exchange (LuSE). The company is engaged in the manufacture and distribution of organic fertiliser. The Internal Audit function, which reports to the Finance Director, was established two (2) years ago. The Head of Internal Audit function is a chemist with over ten (10) years experience in the production of fertilisers. The Internal Audit function has a part-qualified Supervisor with two Assistants who have just completed their senior secondary school.

During the year, the Internal Auditors were involved in the verification of non-current assets for Nzonzi Plc. The company has automated its non-current asset register. You are happy with the way the verification exercise was carried out and you have decided after consultations with the Engagement Partner to perform more work on obtaining evidence on completeness, rights and obligations and existence of non-current assets. The figures shown in the financial statements for both depreciation and non-current assets are material. The company made many disposals during the year which are yet to be audited by the audit team.

Required:

(a) Explain the possible impact of the reliance on the work of Internal Audit function on the External Audit of Nzonzi Plc. (3 marks)

(b) Using the information in the scenario, evaluate whether Chienge Associates should rely on the work of the Internal Audit function of Nzonzi Plc. (7 marks)

(c) Explain why it will be important to use computer assisted audit techniques (CAATs) in the audit of non-current assets in Nzonzi Plc. (5 marks)

(d) Suggest three (3) audit procedures required to obtain sufficient appropriate evidence regarding the completeness of the non-current asset figure. (3 marks)

(e) Suggest two (2) audit procedures required to obtain sufficient appropriate evidence on the accuracy of the profit or loss on disposal. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

Joga Ltd, a medium sized Zambian resident company, started operating on 1 October 2018. The company operates various retail outlets in Zambia and Zimbabwe selling computer spares and accessories. Large customers are given a credit period of 45 days. You are the Audit Manager in the audit of the financial statements for Joga Ltd, for the year ended 30 September 2019. During the course of the audit of Joga Ltd, the Audit Supervisor brought the following three (3) matters to your attention:

Payables

Joga Ltd has strong controls in place to ensure that all liabilities are recorded. The Auditor responsible for the audit of payables sent confirmations to suppliers with large balances. Some suppliers disputed the amounts giving a number of reasons which were verified as correct by the Auditor. However, the Directors have refused to make the required adjustments. The total amount of the understatement is immaterial and the Audit Supervisor has suggested a qualified opinion, with an emphasis of matter paragraph.

Inventory

The inventory held in the retail outlets in Zimbabwe is material to the financial statements but the Auditors were unable to obtain sufficient appropriate audit evidence through direct confirmation or inspection due to logistical problems. The Audit Supervisor has concluded that the possible effects of undetected misstatements, if any, could be material but not pervasive.

He has suggested that the opinion should not be modified but the matter should be included as a key audit matter.

Allowance for doubtful accounts

Audit tests on the allowance for doubtful accounts indicate a deficiency in the relevant internal control system used by management to make accounting estimates. There is a potential understatement of the allowance included within the statement of financial position in the region of K7.5 million, which is material and pervasive. The Audit Supervisor has suggested an adverse opinion.

The Directors are aware that they are required to produce financial statements annually which give a true and fair view of the affairs of the company and its profit or loss for the period. They have requested you to explain what is meant by true and fair so that they can be sure that they are in compliance with the requirement.

Required:

(a) Explain the meaning of true and fair view in respect of the audit report issued by an external auditor. (4 marks)

(b) Explain the contents and importance of the following basic elements of the auditor's report:

(i) Opinion paragraph. (4 marks)

(ii) Key audit matters paragraph. (3 marks)

(c) For each matter, clearly evaluate whether the Auditor Supervisor's suggested audit opinion is appropriate, and if not, recommended an alternative. (9 marks)

[Total: 20 Marks]

END OF PAPER

CA 2.3 AUDITING PRINCIPLES AND PRACTICE SUGGESTED SOLUTIONS:

SOLUTION ONE

a) Suitable internal controls in Warthog Ltd:

Cash on Hand:

1. There should be clear segregation of duties between the person handling cash and the one recording in the accounting records.
2. Reconciliations of daily cash deposited into the bank with the daily cash receipt should be done by an independent person in order to ensure that all cash received is banked.
3. Random cash counts should be made by a person other than the one who handles cash and the amounts agreed to the accounting records.
4. Cash held on hand should be kept in a secure place whose access should be restricted to the handler of the cash.
5. Cash received should be banked promptly within a day of receipt.

Bank Balances:

1. The accounting records should be updated daily with the bank transactions that take place.
2. Regular monthly bank reconciliations should be performed preferably by someone different from the person who banks the money.
3. The completed bank reconciliations should be checked by a senior person and the checking should be evidenced in writing.

Purchases and inventory system:

1. All purchases of goods and materials should be supported by a duly approved purchase order.
2. The custodians of inventory should be different from the ones who purchase materials.
3. There should be stock records for all materials whose balances should agree with the physical stocks held.
4. Random inventory count should be independently performed and results compared with the physical inventory.

b) Warthog Ltd adherence with the UK Corporate Governance Code:

i. Leadership:

The code requires that every company should have a well-balanced board of directors whose role will be take responsibility for the long term success of the

company. The board of directors should have a balance of executive and non-executive directors.
The board of directors of Warthog Ltd comprises largely of executive directors and the board chairman is also the chief executive officer contrary to the provisions of the code.

ii. **Effectiveness:**
The code requires that the board of directors should have a balance of skills in order to be effective.
In the case of Warthog Ltd the board comprises a mixture of skill but what is lacking is the objectivity of the board members because they are all executive directors.

When the company will be listed, it will be required that there is a mix of skill from amongst the non-executive directors who should be inducted in the operations of the company and be able to spend sufficient time on company business in order to be effective.

iii. **Accountability:**
The code provides that the board should be responsible for directing the company. This includes managing risk and putting in place sound internal control systems.

The board of directors of Warthog appears to be failing in this regard because they have requested the audit firm to perform these responsibilities for them. This means that even where they outsource this service they should take responsibility for these tasks.

iv. **Remuneration:**
The code recommends that executive remuneration should be performance based in order to encourage management achieve results with a view to meeting the objectives of the company.

In the case of Warthog Ltd executive management are paid fixed salaries on fixed term contracts without considering the performance. This falls short of the requirements of the code.

v. **Relations with shareholders:**
Currently the company is a private company and the shareholders are also involved in managing the company.

When the company obtains a listing on the stock exchange, there will be clear separation between management and ownership. In the case the code requires that there should be dialogue and mutual understanding between shareholders and management. This will be achieved through the holding of general meetings at which shareholders will participate.

c) i. Advantages of principles based guidance over rule based framework:

1. Rules have to be complied with and application may not be the best under some circumstances but then breach of rules may be considered criminal.
2. Codes can be applied internationally whereas rules may not be applicable beyond the jurisdictions of the countries that enact them.
3. Codes can and do give detailed guidance on how they should be applied unlike rules. This guidance assists in ethical decision making when faced with an ethical dilemma.
4. Principle based guidance allows for variations that may be found in different situations. This is because situations are likely to differ.
5. Principles prevent the professionals from interpreting rule based requirements narrowly in order to get around ethical requirements.
6. Principles based guidance responds to rapidly changing environment faster than rules.
7. Principles based guidance can contain examples of how the principles are applied.

ii. Ethical issues in Warthog Ltd:

1. **Promoting and dealing in the shares of Warthog Ltd:**

   Dealing in the shares of an assurance client may create a self-interest threat and ultimately impact on the objectivity of the auditor.

   The request that the assurance provider should promote and deal in the shares of Warthog on listing gives rise to self-review threat because the assurance provider will have been involved in determining figures on which they are required to provide assurance.

   Ethical guidance prohibits assurance firms to promote, deal or underwrite shares of an assurance client. The firm should make its position clear to the shareholders of Warthog Ltd.

2. **Providing non-audit services:**

   The request by the new shareholders of Warthog Ltd that the assurance provider should provide risk assessment and internal control reviews in addition to auditing gives rise to a self-interest threat to the assurance provider.

   Unless the assurance firm can apply suitable safeguards such as using different teams to perform the non-audit services and the audit the firm should decline the carrying out of the non-audit work.

3. **Special room and restaurant rates:**
   The giving of special room rates which are discounted to business associates may not be a problem in itself.

   With regards the offer of discounted rates to assurance providers gives rise to a self-interest threat. This will impact on the objectivity of the auditors in the performance of their work.

   Guidance provides that such offers of hospitality should not be accepted by assurance providers. The firm should not accept this offer from Warthog Ltd as it will impair their independence and subsequently objectivity.

d) i. Distinction between fraudulent financial reporting and Misappropriation of assets:

Fraudulent financial reporting:
This is the falsification of accounting records with a view to commit fraud or misrepresent the financial statements.

Fraudulent financial reporting can take different forms including:
1. Any manipulation, falsification or alteration of accounting records or supporting documents.
2. Misrepresenting events or transactions with a view to mislead the users of financial statements.
3. Intentional misapplication of accounting principles resulting in misleading the users of financial statements.

Misappropriation of assets:
This is the theft of company assets for personal gain and can be include the following:
1. Stealing of proceeds that are for the organization.
2. The theft of physical assets that belong to the organization.
3. Making the organization pay for goods not received through falsification of documents.
4. The use of organizational assets for personal use.

ii. Fraud risk factors in Warthog Ltd:
1. **Poor internal controls:**
   The poor internal controls in Warthog Ltd are a fraud risk factor in that perpetuators of fraud may be motivated to commit fraud thinking that any such fraud may not be detected by the internal controls which are lacking or poor.

2. **Cash payments:**
   Cash is by nature risky in that it can be used without any problem. There is a risk that the accountant who is the sole hander of cash may misapply company funds and try to hide such misapplication.

3. **Lack of regular reviews of bank reconciliations:**
   The preparation of bank reconciliations help to detect any errors or fraud committed early. The ideal situation is that the bank reconciliations should be checked by an independent person from the person who prepares the reconciliations.

   The lack of regular checks of the bank reconciliation is a fraud risk factor in that the perpetrator knows that there is no independent check of the bank reconciliations prepared.

4. **Lack of segregation of duties of the accountant:**
   The accountant is handling cash as well as recording in the financial statements. This lack of segregation of duties in this respect is a fraud risk factor in that the accountant may commit fraud and hide it since there is no check by an independent person of the work that he performs.

SOLUTION TWO

a) **External benefits of external audits to Chris and Mable:**

1. Audited financial statements will be useful to Chris who is not involved in the day to day running of the business. Through the audited financial statements he can obtain assurance that Mable is running the business in their best interest as against her individual interest.
2. Audited financial statements will benefit both Chris and Mable in their negotiations for the consideration to be paid by the company that wishes to hold a majority of shares.
3. In the event that there is a dispute between the partners, audited financial statements would be most ideal as a basis of sharing the interest in the business.
4. The duo will find it easier to settle their tax liabilities using audited financial statements rather than unaudited financial statements.
5. In the event that the two partners wanted to borrow funds from lending institutions, it is most likely that the financial institutions may look at them more favorably if they present audited financial statements instead of unaudited financial statements.

b) **Rights of statutory auditors:**

1. Statutory auditors have a right to any information that they require from the client company which will assist them perform the audit.
2. The right to any explanation that they require from management and others within the organization.
3. The auditors have a right to attend the general meeting at which the audited financial statements shall be presented.
4. They have a right to receive notice of any meeting at which a causal vacancy arising from their resignation will be filled.
5. The right to speak and be heard at any such meeting concerning matters related to the financial statements.

c) **Meaning of social audits:**

Organizations carry out their activities in communities in which they are based. The organizational activities impact on the lives of the people in the community in which they live.

Most organizations wish to be good citizens of the communities in which they operate and so carry out certain functions as part of giving back to the community such as supporting sporting events or the general welfare of the community.
Usually the organizations set targets on what they intend to do as part of social responsibility.

Social audits may be carried out to check whether the organization has achieved the targets that it has set for itself.

Benefits to an audited entity of social audits:
The social audits that will be carried out will give assurance to the new owners of the company that their new acquisition is that the acquisition is meeting its social responsibilities which are part of corporate responsibility for the group.
Management will also benefit from the outcome of an independent audit on its performance in trying to meet its set targets for social responsibility.

Meaning of environmental audits:
Organizations extract materials from the environment. It is a general requirement that organizational activities should not cause harm to the environment. As a result most organizations are subject to numerous environmental laws and regulations. Further, organizations may suffer by way of customers shunning their products if they do not protect the environment.

Environmental audits, therefore, seek to establish the extent to which the organization has met its objective of protecting the environment. This is done by assessing how the organization has performed in comparison with the policies it has set and also in relation to external regulations.

Benefits to an audited entity of social &environmental audits:
The environmental audit reports help the organization see how it has performed in meeting its objectives and take necessary action wherenecessary. Environmental audits will also assist the organization see where they are not complying with policies and regulations and take corrective action. The public and other stakeholders will be happy that an organization undergoes environmental audits.

d) Matters implied in an unmodified audit opinion:
1. That the auditors have received all the explanations that they required during the course of the audit.
2. That the auditors have received returns from branches that they have not visited.
3. That the financial statements have been prepared in all material respects in accordance with the applicable financial reporting framework.
4. That the financial statements are in agreement with the underlying financial records.
5. That accounting records have been properly kept by the company.

SOLUTION THREE

a) Factors that make auditors give a reasonable assurance:

On conclusion of an audit, the auditors give a reasonable assurance to the shareholders that the financial statements show or do not show a true and fare view. This is a high level of assurance but not an absolute one due to the following reasons:

1. Audits by nature have limitations such as having not been performed in accordance with the auditing standards.
2. The financial statements do contain accounting estimates and so such estimates cannot be confirmed with certainty.
3. Auditors do not test all the transactions and balances contained in the financial statements and so cannot vouch that the financial statements are correct when some items have not been tested.
4. There are limitations in the accounting and control systems such that misstatements may go undetected.

b) The preconditions that must exist before accepting appointment as auditors of Bear Ltd:

1. The auditors must establish the financial reporting framework that Bear Ltd is using and ensure that it is appropriate for the industry that Bear Ltd is involved in.
2. The auditors should obtain acknowledgement from management that:
    - Management is responsible for the preparation of the financial statements.
    - That management is responsible for assessing risk in Bear Ltd and putting in place suitable controls to mitigate any risks that exist.
    - They will disclose and give the auditors any information that they may require in the cause of the audit.

c) The importance of the engagement letter:

The engagement letter is written by the auditor and given to the client company. It is important to both parties in that it sets out the terms of the agreement in order in order to avoid misunderstandings.

Matters that will be contained in an engagement letter:

1. The scope of the engagement should be clearly spelt out in the engagement letter.
2. The responsibilities of the auditor which is to gather evidence on the financial statements form an opinion should be spelt out in the engagement letter.
3. The responsibilities of management in the preparation of financial statements and risk and internal control responsibilities.
4. The applicable financial reporting framework should be identified and stated in the engagement letter.
5. The expected form and content of any reports that will be issued by the auditor.
6. Fees and fee arrangements.
7. Involvement and use of internal audit by the statutory auditors.

8. The need for use of experts during the cause of the audit.
9. Arrangements regarding planning and performance of the audit including the composition of the audit team that will undertake the audit.

d) Reasons for the need to issue a new engagement letter to Bear Ltd:

1. There is a clear misunderstanding on the part of the management of Bear Ltd on the responsibilities of the auditors and that of management. This is sufficient ground to issue a new engagement letters so that the responsibilities of management and auditors are clearly explained.
2. There have been changes in senior management and this will necessitate the issue of a new engagement letter to avoid possible misunderstandings.
3. The growth of Bear Ltd due to the acquisition of a competitor may suggest a change in the scope of the audit and so a new engagement letter will be appropriate.
4. The change in the Act that applies to the financial services providers will necessitate a revision of the engagement letter to ensure that it contains matters relevant to the new act.
5. The scope of the auditors is restricted to the financial statements and the objective is to form an opinion on the financial statements. The requirement that the auditors carry out non audit functions such as risk review and setting out internal controls is a change in the scope of the engagement. This will necessitate a revision of the engagement letter so that it is clear the new role of the auditor under these circumstances.
6. The management team will change after the acquisition with some existing managers retiring and new managers from the acquired company coming in. this will necessitate that the engagement letter be changed in order to avoid misunderstanding with the new management.

(e) Ethical matters to consider in an advertisement:

1. The advertisement should not be misleading.
2. The advertisement should not exaggerate the services offered by the firm.
3. The advertisement should not bring the name of the profession and ZiCA in disrepute.
4. The advertisement should not disparage the work of other professionals.

SOLUTION FOUR

a) Possible impact on the External Audit

The possible impact of the reliance on the work of Internal Audit on the External Audit of Nzonzi Plc will depend on the results of the evaluation of the Internal Audit function. If Chienge Associates concludes that the Internal Audit function for Nzonzi Plc is effective, then this may reduce, modify or alter the timing of external audit procedures, but it can never eliminate them entirely. The effectiveness of the Internal Audit function of Nzonzi Plc will also have a great impact on how Chienge Associates assess the whole control system and the assessment of audit risk.

It will be important for Chienge Associates to determine whether the work of the Internal Audit function can be used for the external audit and, if so, establish the nature and extent of work that can be used.

b) **Evaluating the Internal Audit function for Nzonzi Plc**

The criteria to be used in the evaluation process per ISA 610 (Revised) *Using the work of Internal Auditors* is as follows:

- The extent to which its objectivity is supported by its organizational status, relevant policies and procedures – The Internal Audit function was established two (2) years ago. It is unlikely that Nzonzi Plc has the relevant policies and procedures to support objectivity and independence of the Internal Audit function. In addition, the Internal Audit function reports to the Finance Director which is against recommended best practice aimed at protecting Internal Audit independence.
- The level of competence of the function – The Head of Internal Audit function is a chemist with over ten (10) years' experience in the production of fertilizers. He does not have the relevant professional skill and experience to competently handle such a sensitive portfolio in a public company. The Internal Audit function has a part-qualified Supervisor with two Assistants who have just completed their senior secondary school. It appears Nzonzi Plc has no established policies for hiring internal audit staff.
- Whether the internal audit function applies a systematic and disciplined approach (including quality control) – It is unlikely that the internal audit activities in Nzonzi Plc include a systematic and disciplined approach to planning, supervising, reviewing and documenting assignments since there are no qualified personnel in the Internal Audit function who could be expected to develop and implement a systematic and disciplined approach (including quality control).

The Internal Audit function in Nzonzi Plc is lacking in all areas evaluated and therefore Chienge Associates should not rely on the work of the Internal Audit function.

c) Importance of use of CAATs:

Computer Assisted Audit Techniques (CAATs) are applications of auditing procedures using the computer as an audit tool. There are two particularly common types of CAAT, audit software and test data.

In Nzonzi Plc, the non-current asset register is automated and this means Chienge Associates cannot just audit around the computer but also seriously audit through the computer using CAATs. Without CAATs it could prove very difficult for Chienge Associates to audit through the computer. With CAATs, Chienge Associates will test programme controls as well as general internal controls associated with computers. In addition, Nzonzi Plc had many disposals during the year, meaning only CAATs can enable Chienge Associates to test a greater number of items more quickly and accurately than would be the case otherwise.

d) **Audit procedures regarding completeness of the non-current asset figure:**

The audit procedures include:

- Obtain or prepare a summary of tangible non-current assets showing how gross book value, accumulated depreciation and net book value reconcile with the opening position
- Compare non-current assets in the general ledger with the non-current assets in the financial statements and obtain explanations for differences
- For a sample of assets which physically exist agree that they are recorded in the non-current asset register

e) **Audit procedures regarding accuracy of the profit or loss on disposal**

The audit procedures include:

- Verify disposals with supporting documentation, checking transfer of title, sales price and dates of completion and payment
- Recalculate profit on disposal
- Consider whether proceeds are reasonable

SOLUTION FIVE

a) **Meaning of true and fair view:**

External auditors give an opinion on the truth and fairness of financial statements. This is not an opinion of absolute correctness. "True" and "Fair" are not defined in law or audit guidance, but the following definitions are generally accepted:

- True – information is factual and conforms to reality. In addition the information conforms to the required standards and law. The financial statements have been correctly extracted from the books and records.
- Fair – information is free from discrimination and bias and in compliance with expected standards and rules. The accounts should reflect the commercial substance of the company's underlying transactions.

An audit gives the reader reasonable assurance on the truth and fairness of the financial statements, which is a high, but not absolute, level of assurance. The auditor's report does not guarantee that the financial statements are correct, but that they are true and fair within a reasonable margin of error.

b) **Contents and importance of:**

i. **Opinion paragraph**

The opinion paragraph must identify the entity being audited, state that the financial statements have been audited, identify the title of each statement that comprises the financial statements being audited, refer to the summary of significant accounting policies and other explanatory notes, and specify the date or period covered by each statement comprising the financial statements.

If the auditor expresses an unmodified opinion on financial statements prepared in accordance with a fair presentation in framework, the opinion shall use one of the following equivalent phrases:

The financial statements present fairly, in all material respects,… in accordance with [the applicable financial reporting framework]; or

The financial statements give a true and fair view of… in accordance with [the applicable financial reporting framework.]

The opinion paragraph is important because auditors are required by law to give their opinion on truth and fairness of the financial statements. It is a legal duty.

ii. **Key audit matters paragraph**

For the audit of listed entities, where required by law or regulation, the auditor should include a 'Key audit matters' section. This section describes the matters that, in the auditor's professional judgment, are most significant to the audit.

Listed company auditor's reports include a description of the key audit matters.

Reporting on KAMs is important because it aims to improve **transparency** by helping users to understand the most significant issues the auditor faced. This should enhance the **communicative value** of the auditor's report.

c) **Evaluation of suggested audit opinions**:

1. Payables

The total amount of the understatement is immaterial and therefore the audit opinion cannot be qualified. A qualified opinion suggested by the Audit Supervisor is given if a misstatement is material. The emphasis of matter paragraph is only used where the auditor has obtained sufficient appropriate audit evidence that the matter is not misstated. It cannot be used together with a modification.

The appropriate opinion will therefore be an unmodified opinion given that the misstatement is immaterial.

2. Inventory

The possible effects of undetected misstatements, if any, could be material but not pervasive. The possible misstatement is material and therefore not modifying the audit opinion is wrong. Key Audit Matters (KAMs) do not constitute a modification of the opinion or report. They are not a substitute for a modification. The use of KAM is therefore not appropriate.

The appropriate opinion will therefore be qualified opinion since the misstatement is material but not pervasive.

3. Allowance for doubtful accounts

There is a potential understatement of the allowance included within the statement of financial position in the region of K7.5 million, which is material and pervasive. The misstatement is material and therefore the audit opinion will need to be modified. An adverse opinion is expressed when the auditor, having obtained sufficient appropriate audit evidence, concludes that misstatements are both material and pervasive to the financial statements.

The suggested adverse audit opinion by the Audit Supervisor is therefore appropriate.

END OF SOLUTIONS

CHARTERED ACCOUNTANT ZAMBIA

APPLICATION LEVEL

CA 2.4: TAXATION

THURSDAY 12 DECEMBER 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 from Section B.

3. Enter your student number and your National Registration Card number on the front of the answer booklet. Your name **MUST** not appear anywhere on your answer booklet.
4. Do NOT write in pencil (except for graphs and diagrams).
5. **Cell 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 K	Tax per day 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

Motor vehicles for the transport of ten or more persons, including the driver	Aged less than 5 years		Aged 5 years and over	
	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

Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	Aged less than 5 years		Aged 5 years and over	
	Customs duty K	Excise duty K	Customs duty K	Excise duty 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.

QUESTION ONE

James Ching'ambu is self-employed running a music shop. His statement of profit or loss for the year ended 31 December 2019 is as follows:

	K	K
Gross profit		3,960,000
Less expenses:		
Depreciation	52,800	
Motor expenses (note 1)	294,000	
Professional fees (note 2)	93,600	
Repairs and renewals (note 3)	13,400	
Travelling and entertaining (note 4)	92,600	
Wages and salaries (note 5)	1,446,000	
Other expenses (note 6)	1,575,600	
		3,568,000
Net profit		392,000

Note 1 – Motor expenses

It has been agreed with the Commissioner General that 20% of the mileage done by James during the year ended 31 December 2019 relates to private journeys.

Note 2 – Professional fees

The figure for professional fees consists of K18,400 for accountancy, K10,800 for personal financial planning advice, K12,400 for debt collection, and K52,000 for fees in connection with an unsuccessful application for planning permission to enlarge James's music shop.

Note 3 – Repairs and renewals

The figure for repairs and renewals consists of K1,500 for a replacement hard drive for the shop's computer, and the balance represents cost of computer printer.

Note 4 – Travelling and entertaining

The figure for travelling and entertaining consists of K73,600 for James's business travelling expenses, K9,600 for entertaining suppliers, and K9,400 for entertaining employees.

Note 5 – Wages and salaries

The figure for wages and salaries includes a salary of K320,000 paid to James's wife for the work she did during the year ended 31 December 2019. She works in the music shop as a sales assistant. The other sales assistants doing the same job are each paid a salary of K240,000 per annum.

Note 6 – Other expenses

The figure for other expenses includes K1,500 in respect of a wedding present to an employee, K14,200 for James's health club subscription, K1,200 for a donation to a political party, and K3,600 for a trade subscription to the Guild of Musical Instrument Retailers. The remainder is made of allowable expenses.

Note 7 – Use of office

James uses one of the six rooms in his private house as an office when he works at home. The total running costs of the house for the year ended 31 December 2019 were K86,400, which have not been included in the statement of profit or loss.

Note 8 – Private telephone

James uses his private telephone to make business telephone calls. The total cost of the private telephone for the year ended 31 December 2019 was K13,600, and 25% of this related to business telephone calls. The cost of the private telephone is not included in the statement of profit or loss expenses of K3,568,000.

Note 9 – Goods for own use

During the year ended 31 December 2019James took goods out of the music shop for his personal use without paying for them, and no entry has been made in the accounts to record this. The goods cost K12,000, and had a selling price of K19,000.

Note 10 – Implements, plant and machinery

The income tax values for capital allowances purposes at 1 January 2019 were as follows:

	K
Old Delivery Van	56,250
James's Toyota Avensis motor car	30,000
Old office furniture	5,000
Old office computer	1,500

The purchase costs of the above assets were: K75,000 for the old delivery van, K50,000 for James's Toyota Avensis motor car, K20,000 for the old office furniture and K6,000 for the old office computer.

Transaction during the year ended 31 December 2019 were as follows:

Date	Transaction	Cost/ (proceeds)
		K
1 February 2019	Bought James's Mercedes Benz motor car for	70,000
1 March 2019	Sold old delivery Van for	(50,000)
30 June 2019	Bought new office furniture for	36,000
1 August 2019	Sold old office furniture for	(9,000)
1 November 2019	Bought a new office computer for	6,500

James used both the Toyota Avensis motor car and the Mercedes Benz motor car for both business and private purposes as indicated in note 1 above.

Note 11–Music shop

On 31 August 2019,James sold his music shop for K1,900,000 to an unconnected third party. The disposal proceeds of K1,900,000 include the disposal proceeds attributed to the land of K500,000. James purchased this music shop on 1September 2009 for K1,100,000, including the cost of land of K250,000. James had always used the music shop for business purposes throughout the period of its ownership and at 1 January 2019, the music shop had an income tax value of K680,000 for capital allowances purposes. Jamesdoes not manufacture any musical instruments.

On 1 August 2019, James had relocated his business into a new music shop that he had constructed at a cost of K1,850,000, including land costing K650,000. Construction of the new music shop commenced in May 2018 and completion was in June 2019.

Note 12 – Other information

For the tax year 2019, James paid provisional income tax that was calculated on an amount of provisional income of K690,000. The whole of this amount of provisional income was made up of provisional business profit from the music shop. James paid the provisional income tax on the appropriate due dates and he had also submitted the return of provisional income on the due date.

In February 2019, James got employment as a part time lecturer in music at a local private college. He was paid at a gross rate of K540 per session and he had a total of 120 sessions in the period from February 2019 to 31 December 2019. The college deducted income tax of K24,300 from James's salary under the Pay As You Earn system. The college paid the income tax to the Zambia Revenue Authority on the appropriate due dates.

The Bank of Zambia discount rate for the year ended 31 December 2019 is 15.75% per annum.

Required:

(a) Calculate the amount of provisional income tax paid by James for the tax year 2019, and prepare a schedule showing the due dates when the payments were made. (5 marks)

(b) Calculate the capital allowances for the tax year 2019 on:

(i) Implements, plant and machinery and (10 marks)

(ii) Buildings (4 marks)

(c) Calculate James's taxable business profit figure after capital allowances for the tax year 2019. (10 marks)

(d) Calculate the income tax payable by James for the tax year 2019 and advise him of the consequences of paying that income tax on 21 September 2020. (7 marks)

(e) Advise James of the Property Transfer Tax issues relating to the disposals of the old delivery van, the office furniture and the music shop and calculate the amount of property transfer tax paid by James for the tax year 2019. (4 marks)

[Total: 40 marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

The following information relates to Mayeya for the tax year 2019:

Employment

Mayeya had been employed by TMN Ltd as a sales representative for many years. He was retrenched on 31 May 2019 as part of a restructuring programme undertaken by the company. On his retrenchment, he was paid repatriation pay of K21,000 and a salary in lieu of notice of K31,500. He also received a total sum of K70,000 as pension refunds. Half of this amount was a refund of employee's pension contributions and the remainder was employer's pension contributions. He had accrued 21 leave days which were commuted at K350 per day.

His annual basic salary in the final year of employment was K126,000. He was also entitled to a housing allowance of 12% of his annual basic salary, and a utility allowance of 5% of his annual basic salary.

He was entitled to a sales bonus which was payable whenever he met his monthly sales target at the end of that particular month. In December 2018 he met his sales target, and his bonus of K5,250 was paid on 5 January 2019. He also met his sales target for January 2019 and his bonus of K6,500 was paid on 2 February 2019.

In March 2019, the company paid for the medical treatment of his sick daughter amounting to K8,000. The company additionally paid life insurance premiums of K800 per month on behalf of Mayeya throughout his employment.

The following payments were made from his employment earnings during the tax year 2019:

	K
Pay As You Earn	13,163
NAPSA contributions	7,200
Golf club subscription	1,600
Donation to approved public benefit organisation	7,000
Donation to political party	5,000

Investments

Mayeya holds various investments from which he received following income in the tax year 2019:

	K
Copyright royalties	20,400
Interest from Fixed Deposit bank account	850
Dividends from Eden Plc, a LuSE listed company	17,000
Dividends from HVN Ltd a private limited company	30,600
Income from letting of property	43,200

These were the actual amounts received in all cases.

Transactions in capital assets

During the tax year 2019, Mayeya had the following transactions in capital assets:

(1) On 2 March 2019, he sold two acres of land for K192,000, before deducting estate agents fees of K5,000. He had originally purchased the land on 4 August 2005 for K50,500.

(2) On 29 April 2019 he sold his Ford Ranger motor van for K194,000. He had purchased the motor van on 17 January 2015 for K267,000.

(3) On 14 January 2019, he disposed of 5,000 K1 ordinary shares out of 15,000 shares he holds in Eden Plc a LuSE listed company, when the shares were quoted at K3.50 per share. He acquired the entire holding in April 2012 at a total cost of K30,000.

(4) On 5 May 2019, he transferred 3,000 out of the 20,000, K1 ordinary shares he holds in HVN Ltd, a private Ltd company, to his niece Charissa at nil consideration as a wedding gift. On that date the shares were valued at K5.50 each using valuation techniques approved by the Commissioner General. He acquired the shares 10 years ago at a price of K3.20 per share.

(5) On 14 May 2019, he bought 2,000 acres of arable land in Central Province at a discounted price of K1,200,000, when the market value of the land was K1,350,000.

(6) On 10 June 2019, he sold a residential house at a discounted price K250,000, the Market value of the property on that date being K300,000. The property was acquired in January 2005 at a cost of K90,000.

Required:

(a) Explain using supporting computations the amount of any property transfer tax arising on each of the transaction in capital assets in notes (1) to (6) above during the tax year 2019. (6 marks)

(b) Calculate the total withholding tax paid at source on the investment income received by Mayeya for the tax year 2019. You should clearly show the amount of withholding tax paid on each type of investment income. (5 marks)

(c) Calculate the final income tax payable by Mayeya for the tax year 2019. (9 marks)

[Total: 20 marks]

QUESTION THREE

You are employed in a firm of Chartered Accountants. Your firm is dealing with the tax affairs of Mataka Ltd, a chain of supermarkets. You are helping the company in computing the final company income tax payable as well as preparing the self-assessment company income tax return for the tax year 2018.

You have established that during the year ended 31 December 2018, the company spent a significant amount of money on major improvements and refurbishments of its stores throughout the country to give them a unique, modern look. This has put a strain on the cash resources of the company and it is currently facing liquidity problems. The directors have suggested that this expenditure should be written off as an allowable expense in computing the taxable profit for the year 2018, as they do not want the final income tax payable to be too high. The directors have further informed you that due to these liquidity problems, the company will only manage to pay the final company income tax liability for the tax year 2018, on 20 September 2019 and submit the self-assessment return on the same date, when the liquidity position of the company is expected to improve.

Required:

(a) Explain the possible causes of and the differences between tax evasion and tax avoidance and discuss the practical consequences of practicing each of them.

(6 marks)

(b) Explain the fundamental principle of integrity and discuss how this will apply in the provision of tax services to Mataka Ltd, commenting on how your firm should deal with the directors' suggestion to write off the refurbishment expenditure incurred in the tax year 2018 as an allowable expense in the computation of the company's final company income tax for that year. (6 marks)

(c) Explain the consequences for Mataka Ltd of:

(i) Submitting the self-assessment company income tax return in respect of the year ended 31 December 2018, on 20 September 2019. (2 marks)

(ii) Paying the final company income tax in respect of the tax year ended 31 December 2018 on 20 September 2019. (2 marks)

(d) State the reasons why the Commissioner General may make enquiries into a self - assessment company income tax return submitted by a tax payer. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

MNC Mining Corporation is a mining company operating an underground mine in Zambia. The company is engaged in the extraction of copper. The company made the following exports of copper in the following months of the charge year 2019:

March 2019:	700 tonnes of Copper
June 2019:	1,000 tonnes of Copper
October 2019:	1,200 tonnes of Copper
December 2019:	500 tonnes of Copper

The Zambian kwacha per US$1 exchange rate approved by the Commissioner General from January 2019 to 31 December 2019 should be taken to be K11.50/ US$1.

The average London Metal Exchange (LME) cash prices per metric tonne were as follows:

March 2019:	US$6,300
June 2019:	US$5,900
October 2019:	US$7,600
December 2019:	US$4,400

Required:

(a) Explain the meaning of the following terms in the context of the taxation of mining operations:

(i) Norm value (3 marks)

(ii) Gross value (2 marks)

(iii) Mineral Royalty (3 marks)

(b) Calculate the mineral royalty tax paid by the company, for each export, stating the due date for each payment. (8 marks)

(c) Explain the consequences of the following:

(i) Paying mineral royalty late. (2 marks)

(ii) Submitting the mineral royalty tax return late. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

Assume today's date is 20 March 2019

In March 2019, Luyando imported the following two motor vehicles to be used in his public passenger transportation business which he will commence running on 1 April 2019.

Toyota Caldina

A second hand Toyota Caldina sedan car with a seating capacity of five persons, including the driver, and a cylinder capacity of 2000cc. The car was manufactured in March 2016. The purchase price was $3,100, whilst the insurance cost in transit to the port of Durban, South Africa, was $300 and Freight charges were $500. A further amount of $200 was paid to a clearing and forwarding agent to clear and transport the car from the port of Durban to the Chirundu border post. Incidental costs from the Chirundu border post to Lusaka were $150.

Toyota Coaster Bus

A second hand Toyota Coaster bus with a seating capacity of twenty-eight persons including the driver, at a purchase price of $15,000. Insurance cost in transit to the port of Durban in South Africa was $1,500 and Freight charges were $2,800. A further amount of $700 was paid toa clearing and forwarding agent to clear and transport the bus from the port of Durban to the Chirundu border post. Incidental costs from the Chirundu border post to Lusaka were $500. The bus was manufactured in February 2009.

Exchange Rate

The exchange rate provided by the Commissioner General at that time was K9.80/US$.

Other information

The Toyota Caldina will earn K600 per day starting from 1 April 2019, for six working days per week, for four weeks per month. The salary for the driver of the Toyota Caldina car will be K1,500 per month. Motor car running expenses will average K1,200 per month.

The bus will generate gross income of K1,000 per day starting from 1 April 2019, for six working days per week, for four weeks per month. The salary for the bus driver will be K5,000 per month. The bus running expenses will average K3,500 per month.

He will incur other expenses wholly and exclusively for the purposes of the transportation business of K2,500 per month.

Luyando will not have any other income in the tax year 2019.

Required:

(a) Determine the total amount of import taxes paid on the importation of each of the following motor vehicles:

(i) Toyota Caldina sedan car. (6 marks)

(ii) Toyota Coaster bus. (6 marks)

(b) Explain how Luyando will be assessed to tax on the income from the transportation business in the tax year 2019. Your answer should specifically include:

(i) An explanation of the tax treatment of the expenditure he will incur wholly and exclusively for tax purposes. (4 marks)

(ii) A computation of the total amount tax that will be paid on the income he will generate from the transportation business in the tax year 2019. (4 marks)

[Total: 20 Marks]

END OF PAPER

CA2.4 SUGGESTED SOLUTIONS

SOLUTION ONE

(a) James

Provisional Income Tax computation for the tax year 2019

	K
Provisional Income	690,000
Provisional Income Tax	
On the first K39,600 x 0%	0
On next K9,600 x 25%	2,400
On next (K25,200 x 30%)	7,560
On the balance(K690,000 – K74,400) x 37.5%	230,850
Provisional Income Tax paid	240,810

Schedule of payments of provisional income tax

Due date	Amount
	K
10 April 2019: 25% x K240,810	60,202
10 July 2019	60,202
10 October 2019	60,203
10 January 2020	60,203
Total provisional income tax paid	240,810

(b) (i) Capital Allowances on Implements, Plant and Machinery for the tax year 2019

		Capital Allowances
Old Delivery Van	K	K
Income Tax Value b/f	56,250	
Disposal	(50,000)	
Balancing Allowance		6,250
Toyota Avensis Motor Car		
Wear and Tear Allowance		
20% x K50,000	10,000 x 80%	8,000
Old office furniture		
Income Tax Value b/f	5,000	
Disposal	(9,000)	
Balancing Charge		(4,000)
Old Office Computer		
Wear and Tear Allowance		
25% x K6,000		1,500
Mercedes Benz Motor Car		
Wear and Tear Allowance		
20% x K70,000	14,000 x 80%	11,200
New Office Furniture		

Wear and Tear Allowance		
25% x K36,000		9,000
New Office Computer		
Wear and Tear Allowance		
25% x K6,500		1,625
Office Printer		
Cost (K13,400 – K1,500)	11,900	
Wear & tear allowance		
(K11,900 x 25%)	(2,975)	2,975
	36,550	
Total Capital Allowances		36,550

(ii) Capital Allowances on Commercial Buildings for the tax year 2019

	K	Capital Allowances K
Old Music Shop		
Income Tax Value b/f	680,000	
Disposal		
(K1,100,000 – K250,000)	(850,000)	
Balancing Charge		(170,000)
New Music Shop		
Total Construction Cost	1,850,000	
Less cost of land	(650,000)	
Qualifying cost	1,200,000	
Wear and Tear Allowance		
2% x K1200,000		24,000
Net balancing charge		(146,000)

(c) James

Computation of taxable business profit for the tax year 2019

	K	K
Net profit as per accounts		392,000
Add:		
Depreciation	52,800	
Motor car Expenses		
294,000x 20%		
	58,800	
Personal financial planning advice	10,800	
Cost of computer printer	11,900	
Entertaining suppliers	9,600	
Excess salary (K320,000 – K240,000)	80,000	
James' health club subscription	14,200	
Donation to political party	1,200	
Goods for personal use	19,000	
		258,300
		650,300
Less:		
Use of office at home (K86,400 x 1/6)	14,400	

Private telephone (K13,600 x 25%)	3,400	
		(17,800)
Tax adjusted business profit		632,500
Capital allowances		
Capital allowances on implements, plant and machinery	36,550	
Net balancing charge on commercial buildings	(146,000)	
Net balancing charge		109,450
Taxable business profit		741,950

(d) James

Personal Income Tax computation for the tax year 2019

	K
Taxable business profit	741,950
Emoluments from part time employment (K540 x 120)	64,800
	806,750
On the first K39,600 x 0%	0
On next K9,600 x 25%	2,400
On next (K25,200 x 30%)	7,560
On excess(K806,750 – K74,400) x 37.5%	274,631
	284,591
Less: tax already paid	
Provisional income tax	(240,810)
Pay As You Earn	(24,300)
Income tax payable	19,481

If James paid the income tax of K19,481 on 21 September 2020, it would have been overdue by three months because the due date is 21 June 2020. The consequences of this late payment are that:

(1) A penalty at the rate of 5% of the unpaid tax per month or part thereof would be charged. The amount of penalty would be = 5% x K19,481 x 3 = K2,922

(2) Interest on over due tax would also be charged at the Bank of Zambia discount rate plus 2% per annum. The rate of interest on overdue tax would be 15.75% + 2% = 17.75%. The amount of interest charged would be
= 17.75% x K19,481 x 3/12 = K864

(e) The Property Transfer Tax issues are as follows:

(1) In respect of the disposal of the old delivery van on 1 March 2019, James is not required to pay Property Transfer Tax because motor vehicles are not chargeable property for the purposes of Property Transfer Tax.

(2) In respect of the disposal of the office furniture on 1 August 2019, James is still not required to pay Property Transfer Tax because office furniture is not chargeable for the purposes of Property Transfer Tax.

(3) In respect of the disposal of the music shop on 1 November 2019, James is required to pay Property Transfer Tax because the disposal of a music shop is a transfer of property. The realized value is the actual disposal proceeds amount of K1,900,000 and the Property transfer Tax payable is = 5% x K1,900,000
= K95,000.

SOLUTION TWO

(a) Sale of Land

The realised value of land is the higher of its open market valuation and the agreed contract price. The realised value of the commercial plot will therefore be K192,000. Incidental costs of sale such as estate agents fees are not deductible for the purposes of determining the realised value and the original purchase cost of the land is irrelevant.

Property transfer tax arising was:

K192,000 x 5% = K9,600

Sale of Ford Ranger

No PTT will arise on the sale of the Ford Ranger as it is not chargeable property for the purposes of Property Transfer Tax.

Sale of Shares in Eden Plc

Shares in a company that is listed on the LuSE is not chargeable property under the Property Transfer Act and therefore, no property transfer tax will arise on the transfer of the shares in Eden Plc.

Transfer of shares to niece

Property transfer tax will arise on the transfer of shares in HVN Ltd to his niece because the company is not listed on the Lusaka Stock Exchange and the niece is not a member of the immediate family.

The realised value of the shares is the higher of the nominal value of the shares and their open market valuation. The amount of PTT arising is:

(3,000 x K5.50)x 5% = K825

Purchase of Arable land

Property transfer tax is payable by the transferor of the property and not the transferee. Therefore, no property transfer will be assessed on Mayeya on the acquisition of the land being the transferee.

Sale of Residential House

Property transfer tax will arise on sale of the residential house. The realised value of the house will be taken as its open market value and property transfer arising is:

K300,000 x 5% = K15,000

(b) COMPUTATION OF WITHHOLDING TAX DEDUCTED AT SOURCE

	K
WHT on:	
Copyright royalties (K20,400 x 15/85)	3,600
Fixed deposit interest	0
Dividends from Eden Plc (K17,000 x 0%)	0
Dividends from HVN (K30,600 x 15/85)	5,400
Income from letting (K43,200 x 10/90)	4,800
Total	13,800

(c) MAYEYA'S
PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K	K
Salary (K126,000 x 5/12)		52,500
Housing allowance (K126,000 x12% x 5/12)		6,300
Utility allowance (K126,000 x 5%) x 5/12		2,625
Bonus		6,500
Life insurance (K800 x 5)		4,000
Accrued leave pay (K350 x 21)		7,350
		79,275
Less donation to approved public benefit organization		(7,000)
		72,275
Investment income		
Copy right royalties (K20,400 x 100/85)		24,000
		96,275
Income Tax		
K39,600 x 0%		0
K9,600 x 25%		2,400
K25,200 x 30%		7,560
K21,875 x 37.5%		8,203
		18,163
Less: PAYE		(13,163)
WHT on Royalties		(3,600)
Final income tax payable		1,400

SOLUTION THREE

(a) Tax evasion refers to the use of illegal means to avoid tax. Such means include failing to disclose the relevant amounts of income and other forms of fraud which the tax payers may engage in. The aim of the tax payer practicing tax evasion is to defraud the government of the revenue.

Tax evasion arises when taxes are perceived to be too high or unfair on the tax payers. Another cause of tax evasion may be intentional where the tax payer intentionally hides some income.

Tax evasion is an offence and may be punishable by fines and/or imprisonment.

On the other hand, tax avoidance is concerned with identifying any loop holes in the taxes legislation, and using them to minimize or defer tax liabilities. Tax avoidance is, however difficult to define more thoroughly.

Tax avoidance is caused by tax payers planning their tax affairs so as to minimise or defer taxation liabilities.

Tax avoidance is not an offence, though, to discourage its practice, the government may issue anti-avoidance legislation. Anti-avoidance legislation aims at sealing the loop holes in the taxes legislation so as to prevent taxpayers from taking advantage of them, and thereby reducing their tax liabilities lawfully.

(b) Integrity means that a professional accountant should be straightforward and honest in all professional and business relationships. The principle of integrity imposes an obligation on the practitioner to ensure straightforwardness, fair dealing, a commitment not to mislead or deceive and truthfulness.

This means that your firm should ensure that the tax obligations of Mataka Ltd are properly discharged. It also means that in providing tax services to the company your firm 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.

Your firm should therefore advise the directors against writing off the refurbishment expenditure as an allowable expense in computing the taxable profit for the previous year. This expenditure is essentially capital in nature and as such is not deductible. The suggested treatment will result in an understatement of the taxable profits and hence understatement of the final company income tax resulting in under payment of tax by the company which will amount to tax fraud. This will expose the company to fines, penalties and interest once discovered by the ZRA. Failure by your firm to provide this advice to the company will amount to a breach of the principle of integrity as then your firm will knowingly be associated with the preparation of a return containing incorrect or misleading information.

(c) (i) If the self-assessment return is return is submitted on 20 September 2019, then it would have been submitted late by 3 months given that the due date for the submission of the self-assessment in respect of the tax year 2018 is 21 June 2019.

A penalty of 2,000 penalty units (K600) per month or part thereof will be charged. The total amount of the penalty will therefore be 6,000 penalty units (K1,800)

(ii) If the final amount of company income tax is paid late on 20 September 2019, then it will be paid late by 3 months given that the due date for the payment of the final company income tax in respect of the tax year 2018 is 21 June 2019. Therefore, a penalty 5% of that income tax per month will arise. This penalty will run from the due date of payment of income to the date of actual payment.

Additionally, interest on overdue tax is charged at the Bank of Zambia discount rate plus 2% per annum. The interest will be calculated on the income tax that is paid late and will run from the due date of payment of income tax to the date of actual payment.

(d) Enquiries into a tax payer's self-assessment income tax return may be made in the following situations:

(1) The Commissioner General needs to be satisfied that tax payers submit correct returns and may make enquiries into a tax return in order to determine whether the tax return submitted is correct in all respects.

(2) The Commissioner General may make an enquiry where he suspects that income hasnot been declared in full.

(3) The Commissioner General may make an enquiry where it is suspected that some deductions which a taxpayer is not entitled to have been claimed.

(4) Enquiries may also be made into tax returns as a random check on the correctness of the tax returns.

SOLUTION FOUR

(a) (i) Norm value means:

The monthly average London Metal Exchange Cash price per metric tonne multiplied by the quantity of the metal or recoverable metal sold or;

The monthly average Metal Bulletin cash price per tonne multiplied by the quantity of the metal sold or recoverable metal sold to the extent that the metal price is not quoted on the London Metal Exchange or;

The monthly average cash price per metric tonne of any other exchange market approved by the Commissioner-General multiplied by the quantity of the metal or recoverable metal sold to the extent that the metal price is not quoted on the London Metal Exchange or Metal Bulletin.

(ii) Gross value

Gross value means the realised price for a sale free-on-board (FOB), at the point of export from Zambia or point of delivery within Zambia.

(iii) Mineral Royalty

Mineral Royalty is a Royalty that is payable on either the norm value or the gross value of minerals extracted from within Zambia. Every person who holds a mining licence and who extracts the minerals shall pay mineral royalty.

Mineral Royalty is accounted for as a tax and therefore administered by the Zambia Revenue Authority.

(b) Mineral royalty tax

<u>March 2019</u>

Norm value;

\$6,300 x 700 tonnes x K11.50 = K50,715,000

Mineral Royalty

K50,715,000 x 7.5% = K3,803,625

The due date for this tax is 14 April 2019

<u>June 2019</u>

Norm value;

\$5,900 x 1,000 tonnes X K11.50 = K67,850,000

Mineral Royalty

K67,850,000 x 6.5% = K4,410,250

The due date for this tax is 14 July 2019

October 2019

Norm value;

$7,600 x 1,200 tonnes X K11.50 = K104,880,000

Mineral Royalty

K104,880,000 x 8.5% = K8,914,800

The due date for this tax is 14 November 2019

December 2019

Norm value;

$4,400 x 500 tonnes X K11.50 = K25,300,000

Mineral Royalty

K25,300,000 x 5.5% = K1,391,500

The due date for this tax is 14 January 2020

(c) (i) Consequences of paying mineral royalty late

(1) A penalty of 5% per month or part thereof is charged on late payments of mineral royalty.

(2) Additionally, interest is charged on the overdue mineral royalty at the Bank of Zambia discount rate plus 2% per annum.

(ii) Consequences of submitting mineral royalty returns
(1) A penalty of K300 (1,000 penalty units) for individuals or;

(2) K600 (2,000 penalty units) for companies is charged per month or part thereof for failure to submit a monthly mineral royalty return.

SOLUTION FIVE

(a) (i) COMPUTATION OF IMPORT TAXES PAID ON THE TOYOTA CALDINA:

Purchase price	$3,100
Insurance	$300
Freight	$500
Clearing and forwarding costs	$200
	$4,100
Exchange rate	x K9.80
VDP	40,180

Since the Toyota Caldina sedan car is 3 years old from the date of manufacture and has a cylinder capacity of 2,000cc, the total amount of import taxes payable will be determined as follows:

	K	K
VDP	40,180	
Customs duty	16,545	16,545
	56,725	
Excise duty	21,508	21,508
	78,233	
VAT @ 16% x K78,233	12,517	12,517
	90,750	
Total import taxes paid		50,570

(ii) COMPUTATION OF IMPORT TAXES PAID ON THE TOYOTA COASTER BUS:

The Value of the bus for the purposes of determining import VAT will be determined as follows:

Purchase price	$15,000
Insurance	$1,500
Freight	$2,800
Clearing and forwarding costs	$700
	$20,000
Exchange rate	x K9.80
	196,000

Since the Toyota Coaster bus is more than 5 years old from the date of manufacture and has a seatingcapacity of 28 persons, the total amount of import taxes payable will be determined as follows:

	K	K
VDP	196,000	

Customs duty	13,840	13,840
	209,840	
Excise duty	0	0
	209,840	
VAT @ 16%	33,574	33,574
	243,414	
Surtax charge		2,000
Total import taxes paid		49,414

(b) (i) Luyando is an individual carrying on the business for the transportation of passengers for a reward and as such will be required to pay presumptive taxes for transporters. The amount of presumptive taxes payable will be fixed amounts based on the seating capacity of each motor vehicle used in the transportation business.

Luyando will not be required to pay income tax on the profit generated by the transportation business and therefore, there will be no tax implications for the drivers' salaries, bus running expenses, and other expenses he will incur wholly and exclusively for purposes of the transportation business.

Similarly, because it will not be necessary to compute taxable profits for the purposes of determining the amount of presumptive tax payable, capital allowances will not be available on the cost of the bus and the Toyota car.

(ii) COMPUTATION OF TAXES PAYABLE

Toyota Caldina Sedan

The seating capacity of the car is 4 passengers beside the driver and the daily tax payable for the car is K2.40. The car will also operate for 6 days per week for 4 weeks per month giving 24 days per month starting in April 2019. The total presumptive tax payable on the car in the tax year 2019 will therefore be:
K2.4 x 24 days x 9 months = K518.40.

Toyota coaster bus

The seating capacity of the bus is 27 passengers beside the driver and the daily tax payable for each bus is K15.00. The bus will operate for 6 days per week for 4 weeks per month giving 24 days per month starting in April 2019. The total presumptive tax payable on the bus in the tax year 2019 will therefore be:
K15 x 24 days x 9 months = K3,240.

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 13 DECEMBER 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

MKM Plc is reviewing investment proposals that have been submitted by divisional managers. The investment funds of the company are limited to K10million in the current year. Details of three possible investments, none of which can be delayed, are given below:

Project 1
An investment of K4.96million in customer service equipment that is expected to reduce administration costs by K3.62million per annum in money terms for the next five years. The equipment attracts capital allowance at the rate of 25% on a reducing balance basis.

Project 2
An investment of K6.4million in efficient production equipment that would lead to savings in labour costs and reduction in production wastage. Savings in production costs from this investment in money terms are expected to be as follows:

Year	1	2	3	4	5
Cash flows(K'000)	3,900	5,600	6,000	5,000	4,000

The production equipment attracts capital allowances at the rate of 20% on straight-line basis.

Project 3
An investment of K6.2million in new point of sale machines. Cash savings of K4.2million per annum are expected in current price terms and these are expected to increase by 8% per annum due to inflation during the five-year life of the machines.

MKM Plc has 20million shares trading at K5 per share and 10% bonds with five years to maturity trading at K1, 020 per K1,000.The book value of the bonds is K40million. The expected market rate of return is 15% and government treasury bills are 6%. The company asset beta is 0.79. Corporate tax is payable at the rate of 30% one year in arrears.

Required:

(a) Calculate the current weighted average cost of capital (WACC) of MKM Plc.
(9 marks)

(b) Evaluate the best way in which MKM Plc can invest the available funds based on the following assumptions:

(i) That each of the three projects is divisible;
(ii) That none of the projects are divisible. (25 marks)

(c) Explain the reasons for capital rationing under investment situations.
(6 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

HD Ltd is a private company in the retail sector. The company is considering listing its shares on the stock exchange in the near future. However the company directors are uncertain whether the company will meet the conditions for a stock market listing. Alternative forms of finance such as private equity and venture capital are also being considered by the company. HD Ltd shares are expected to pay a dividend of K550,000 one year from now. During the next 3 years the dividend is expected to grow at 10% per annum. After that growth will equal 15% per annum for the next two years. Finally growth will settle down to an average of 12% per annum.

Required:

(a) Explain the factors that a venture capital organization will consider before making a decision to invest in HD Ltd. (10 marks)

(b) Estimate the current value of HD Ltd shares if the required return to shareholders of quoted companies in the same industry as HD Ltd is 20%. (10 marks)

[Total: 20 Marks]

QUESTION THREE

BCA Ltd a Lusaka based wholesale company operates a conservative working capital management policy. BCA Ltd management is concerned with the length of it cash operating cycle. They are looking at ways of reducing it.

The company is also concerned with the size of its cash balance in its current account. The Managing director believes that the balance is too high and it could be better if the cash was utilized elsewhere. However the finance manager believes that BCA Ltd cannot survive without a sizeable amount of cash in hand. He believes that instead of maintaining the cash in the current account it can be invested in marketable securities. Cash in hand earns no income at all while marketable securities earn relatively low interest. BCA Ltd credit terms offered by its suppliers together with additional information are provided in the following table:

Normal credit period	30 days
Discount for payment within 10 days of invoice	2% of invoice value
Current short term deposit interest	12% p. a
Value of invoice issued to BCA Ltd	K100,000

Required:

(a) Advise BCA Ltd whether or not they should take up the discount. (4 marks)

(b) Discuss the reasons for and against the maintenance of some cash in hand or in near-cash balances such as marketable securities. (8 marks)

(c) i. Discuss the reasons a lengthening cash operating cycle should be a cause of concern for BCA Ltd. (2 marks)

ii. Outline the measures that can be taken to shorten the cycle. (6 marks)

[Total: 20 Marks]

QUESTION FOUR

BIG Plc a private company owns a chain of Hotels. The company has in issue five (5) million shares with an ex dividend market value of K50.76 per share. The company is considering diversifying into the manufacturing sector. The company plans to issue an additional bond in order to finance the diversification but the board chairman had expressed concern over increase in exposure to financial risk. Instead they suggested that finances for the project could be raised from the existing resources. The board chairman observed that the company has only one objective which is to maximize the shareholders wealth and this can be threatened if the additional debt is contracted. However, one of the non-executive directors argued that additional objectives should be considered in areas such as the management of working capital because of the nature of the manufacturing industry.

Required:

(a) Explain the nature of business risk and financial risk that the shareholders of BIG Plc are exposed to and how each can be assessed. (8 marks)

(b) Discuss the objective of working capital management of a company such as BIG Plc. (6 marks)

(c) Discuss whether it is appropriate for BIG Plc to have only one objective. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

Equity Leasing Holdings (ELH) is considering listing on LuSE at the beginning of 2019. Its projected financial statements at the end of the current year ending December 2018 are as follows:

	K' million		K' million
Income	159	Non–Current Assets	181
Operating expenses	(92)	Current Assets:	
Profit before interest & tax	67	Investment securities	111
Interest expense	(24)	Loans Receivable	146
Profit before tax	43	Cash	110
Income tax (30%)	(13)		367
Distributable Profits	30	Total assets	**548**
Dividends	-		
Retained earnings	30	Current Liabilities	
		Trade payables	253
		Bank Overdraft	6
			259
		Equity	99
		Non–Current Liabilities	190
		Total equity and liabilities	**548**

Equity Lease Holdings competes in the same business segments as the industry leader, Prime Estates Zambia Plc (PEZ) and expects to improve its financial ratios to be in line with those of PEZ after listing. The key financial indicators for PEZ for the current and following year ending December 2019 are projected as follows:

	PEZ
Return on (long - term) capital employed	22% (pre-tax)
Return on equity	42% (post-tax)
Operating profit margin	50%
Current ratio	1.2:1
Gearing (long – term debt/equity)	88%
Interest cover	4
Dividend payout ratio	30%
P/E ratio	13:1

Equity Lease Holdings has authorized and fully paid ordinary shares with a par value of K33.00 per share. The last sale of shares in Equity Lease Holdings as a privately held company took place at a price of K66.00.

Required:

(a) Explain five (5) possible reasons EHL may be seeking a listing on LuSE. (5 marks)

(b) Prepare a report including the following:

(i) Comparison of the current financial performance of Equity Lease Holdings to that of the industry leader, PEZ, using P/E, dividend payout, profitability, liquidity and gearing ratios in form of an appendix. (10 marks)

(ii) Explaining how Equity Lease Holdings can restructure its financial statements after listing to enhance its financial indicators in line with those of PEZ.

(5 marks)

[Total: 20 Marks]

END OF PAPER

Formula Sheet

Economic order quantity

$$= \sqrt{\frac{2C_oD}{C_H}}$$

Miller – Orr Model

$$\text{Return point} = \text{Lower limit} + (\frac{1}{3} \times \text{spread})$$

$$\text{Spread} = 3\left[\frac{\frac{3}{4} \times \text{transaction cost} \times \text{variance of cash flows}}{\text{interest rate}}\right]^{\frac{1}{3}}$$

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

$$s_1 = S_0 \times \frac{(1+h_c)}{(1+h_b)} \qquad f_0 = s_0 \times \frac{(1+i_c)}{(1+i_b)}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA2.5 SUGGESTED SOLUTION

SOLUTION ONE

a) WEIGHTED AVERAGE COST OF CAPITAL						
Equity beta:						
0.79= Be x 0.71/0.71+0.29(0.7)						
Be = 1.02						
Market Value:	K'm	%				
Equity: (20m x K5)=	100	0.71				
Debt(K40mx1020/1000)	40.8	0.29				
	140.8					
Cost of Equity = 6% + 1.02(15%-6%)=15.18%						
Cost of Debt						
Period		Cash flow	Discount @11%	PV	Discount @5%	PV
0	MV	(1,020)	1	(1,020)	1	(1,020)
1 to 5	Interest(I x 1-t)	70	3.696	258.72	4.329	303
5	Redemption	1,000	0.593	593	0.784	784
				(168)		67
IRR= 5% + 67/67+168 (11%-5%) = 6.71%						
WACC= 15.18% x (0.71) + 6.71% x (0.29) =13%						
b) CAPITAL RATIONING						
i) Divisible Projects						
	Investment Required	Total PVs	NPV	Profitability Index	Ranking using PI	Ranking using NPV
Project 1	4.96	10.28	5.32	2.07	3rd	3rd
Project 2	6.4	13.85	7.45	2.16	2nd	1st
Project 3	6.2	13.49	7.29	2.18	1st	2nd

Best way to Invest Using PI:						
	Initial Outlay	NPV				
Project 3	6.2	7.29				
Project 2	3.8	4.42				
Total	**10**	**11.72**				
Investing Using NPV						
	Initial Outlay	NPV				
Project 2	6.4	7.45				
Project 3	3.6	4.24				
Total	**10**	**11.69**				

Therefore, the best way is to implement Project 3 and 2 basing on the PI ranking because it gives us higher total NPV compared to ranking using the NPV method

Non divisible Projects

Only project 2 should be undertaken because it gives us a higher NPV of K7.45m compared with other projects and the balance(K3.6m) from funds available cannot cover any other projects.

WORKINGS

PROJECT 1

Year	1	2	3	4	5	6
Savings in Admin costs	3.62	3.62	3.62	3.62	3.62	-
Tax@30%	-	(1.09)	(1.09)	(1.09)	(1.09)	(1.09)
Capital allowances	-	0.37	0.28	0.21	0.16	0.47
Net cash flows	3.62	2.91	2.81	2.74	2.69	(0.62)
Discount@13%	0.885	0.783	0.693	0.613	0.543	0.480
Present Values	**3.20**	**2.28**	**1.95**	**1.68**	**1.46**	**(0.30)**
Total PVs	10.28					
Initial Outlay	(4.96)					
NPV	**5.32**					

Capital Allowances	WDV	CA@25%	Tax@30%			
Year 1	4.96	1.24	0.37			
Year 2	3.72	0.93	0.28			
Year 3	2.79	0.70	0.21			
Year 4	2.09	0.52	0.16			
Year 5	1.57	1.57	0.47			
PROJECT 2						
Year	1	2	3	4	5	6
	K'm	K'm	K'm	K'm	K'm	K'm
Pduction costs savings	3.9	5.6	6	5	4	0
Tax@30%	0	(1.2)	(1.7)	(1.8)	(1.5)	(1.2)
Capital Allowances	0	0.38	0.38	0.38	0.38	0.38
Net Cash flows	3.90	4.81	4.70	3.58	2.88	(0.82)
Discount@13%	0.885	0.783	0.693	0.613	0.543	0.480
Present Values	**3.45**	**3.77**	**3.26**	**2.20**	**1.57**	**(0.39)**
	K'm					
Total PVs	13.85					
Initial Outlay	(6.40)					
NPV	**7.45**					
	WDV	CA@20%	Tax@30%			
Capital Allowances	6.4	1.28	0.38			
PROJECT 3						
Year	1	2	3	4	5	6
Cash Savings	4.54	4.90	5.29	5.71	6.17	-
Tax@30%	-	(1.36)	(1.47)	(1.59)	(1.71)	(1.85)
Net Cash flows	4.54	3.54	3.82	4.13	4.46	(1.85)
Discount@13%	0.885	0.783	0.693	0.613	0.543	0.480
Present Values	**4.01**	**2.77**	**2.65**	**2.53**	**2.42**	**(0.89)**
Total PVs	13.49					
Less: Initial Outlay	(6.20)					
NPV	**7.29**					

c)For MKM Plc to invest in all projects with a positive net present value it must be able to raise funds as and when it needs them. However, this is only possible in a perfect capital market. In practice capital markets are not perfect and the capital available for investment is likely to be limited or rationed. In this case MKM Plc has only K10million to in invest in three projects which required a total of K17.56million.The causes of capital rationing may be external (hard capital rationing) or internal (soft capital rationing).

Soft capital rationing is more common than hard capital rationing. When a company cannot raise external finance even though it wishes to do so, this may be because providers of debt finance see the company as being too risky. In terms of financial risk, the company's gearing may be seen as too high, or its interest cover may be seen as too low. From a business risk point of view, lenders may be uncertain whether a company's future profits will be sufficient to meet increased future interest payments because its trading prospects are poor, or because they are seen as too variable.

When managers impose restrictions on the funds they are prepared to make available for capital investment, soft capital rationing is said to occur. One reason for soft capital rationing is that managers may not want to raise new external finance.

For example, they may not wish to raise new debt finance because they believe it would be unwise to commit the company to meeting future interest payments given the current economic outlook. They may not wish to issue new equity because the finance needed is insufficient to justify the transaction costs of a new issue, or because they wish to avoid dilution of control.

Another reason for soft capital rationing is that managers may prefer slower organic growth, where they can remain in control of the growth process, to the sudden growth arising from taking on one or more large investment projects.

A key reason for soft capital rationing is the desire by managers to make capital investments compete for funds, ie to create an internal market for investment funds. This competition for funds is likely to weed out weaker or marginal projects, thereby channelling funds to more robust investment projects with better chances of success and larger margins of safety, and reducing the risk and uncertainty associated with capital investment.

SOLUTION TWO

HD LTD

a) Venture capital is an alternative source of finance for unquoted high growth companies. It is risk capital normally provided in exchange for an equity stake.

The directors of HD Should contact venture capital organizations to try to find out one or more which would be willing to offer finance. However venture capital finance is not without conditions.

There are various factors that a venture capital organization will take account of in deciding whether or not to invest in HD. The venture capital organization will basically need convincing that the company can be successful. The factors it will consider include:

1) The nature of HD product or services. The venture capital organization will consider the viability of production and selling potential of HD products.
2) HD expertise in production. This involves considering HD technical ability to produce efficiently.
3) Expertise in management. This involves looking at the commitment skills and experience of HD personnel.
4) The market and competition. The venture capitalist is concerned with market rivalry in HD industry or future new entrants.
5) The venture capitalist will demand a detailed business plan showing profits prospects that compensate for risks.
6) The venture capital organization will require an equity stake in HD ltd.
7) Representation on the board of directors of HD Ltd. This is necessary so that the venture capitalist interests are considered and so that it can have a say in future strategy.
8) Risk borne by existing owners. It will need HD owners to bear significant risk and invest a significant part of their overall wealth.

b)

Future year	growth	expected dividend	AF	DF @20%	PV
1	0.1	550000		0.8333	458315
2	0.1	605000		0.6944	420112
3	0.1	665500		0.5787	385125
4	0.1	732050		0.4823	353068
5	0.15	841857.5		0.4019	338343
6	0.15	968136.13		0.3349	324229
7onwards	0.12	1084312	12.5	0.3349	4539201
Present Value					K6, 818,3

SOLUTION THREE

BCA

Workings

a)

Cash discount 2/100*K100,000=K2000

Investment amount K100,000-K2,000=K98,000

Period 30days -10days=40days

Interest K98,000 * 40/365 *14/100=K752

BCA Should therefore take the discount as the discount K2,000 is higher than the interest that could be earned by investing the funds K752.

b)

Cash and marketable securities are the most liquid working capital items, but also the most unproductive for a firm. Marketable securities are short term debt instruments .Debt instruments are debt securities which can be traded. Cash on hand earns no income at all whilst marketable securities such as treasury bills, negotiable certificates of deposit earn relatively low interest.

However there are a number of reasons why BCA Ltd should hold cash or near cash balances and these include:

1) The transaction motive: to meet ordinary day-to-day payments, such as wages and payments to suppliers.
2) The precautionary motive: reserves to cover unforeseen events, such as machinery malfunction.
3) The speculative motive: to take advantage of any unexpected discounts or bargain prices.
4) Loan covenants imposed by lenders imposed by lenders, such as minimum cash balances in an account, or a required level of liquidity as a pre-requisite for a loan.

These sound reasons for holding cash must be weighed up against the costs involved in maintaining cash or near cash balances. These costs would involve:

1) Opportunity costs of foregoing other more lucrative investments
2) The cost of short term funding required due to the fact that cash or near cash is being utilized for the reasons stated above and not available to close the gap between cash inflows and outflows.

c) The operating cycle begins when inventory is purchased and ends with the collection of payment from the customer. The longer the operating cycle the more financing is required. It may indicate slow moving inventory or collection inefficiencies. Such problems can be hidden by an increased payables period, but this can affect our relationship with suppliers if not handled properly.

   Examples of measures that can be taken to ensure a shorter cycle include:

   1) Reducing the manufacturing and selling period (without compromising product quality)
   2) Reducing the accounts receivable period (without antagonizing customers)
   3) Lengthening the accounts payable period (without losing suppliers and getting a poor credit rating)

SOLUTION FOUR

BIG Plc

a)
Nature and assessment of business risk

Business risk arises due to the nature of a company's business operations, which determines the business sector into which it is classified, and to the way in which a company conducts its business operations. Business risk is the variability in shareholder returns that arises as a result of business operations. BIG Plc shareholder may face different business risk in the new business area that the company wants to venture into because business operations would be different. Business risk can therefore be related to the way in which operating profit changes as revenue or turnover changes. This can be assessed from a shareholder perspective by calculating operational gearing, which essentially looks at the relative proportions of fixed operating costs to variable operating costs.

Nature and assessment of financial risk

Financial risk arises due to the use of debt as a source of finance, and hence is related to the capital structure of a company. Financial risk is the variability in shareholder returns that arises due to the need to pay interest on debt. If BIG Plc decides to use an additional bond to finance the new project, the interest costs would increase and hence harm the profits. The capital structure might also change significantly depending on the amount of debt to be raised. Financial risk can be assessed from a shareholder perspective by calculating balance sheet gearing or interest coverage ratio.

b)
The objectives of working capital management are usually taken to be profitability and liquidity. Profitability is associated to the financial objective of maximising shareholder wealth whereas liquidity is required in order to settle liabilities as they fall due. A company must have sufficient cash to meet its liabilities, since otherwise it may fail. However, these two objectives are in conflict, since liquid resources have no return or low levels of return and hence decrease profitability. A conservative approach to working capital management will decrease the risk of running out of cash, favouring liquidity over profitability and decreasing risk. Conversely, an aggressive approach to working capital management will emphasise profitability over liquidity, increasing the risk of running out of cash while increasing profitability.

c)
Maximisation of shareholder wealth is the theoretically ideal corporate objective. However, most organisations now recognise that having this as their sole objective is unrealistic. Whilst there is still the philosophy that shareholders' wealth should be improved as much as possible, this is usually within the constraints of other objectives, such as legal obligations relating to the environment, ethical considerations (not using 'sweat-shop' labour for example) and health and safety issues.
BIG Plc has the additional problem of trying to value shareholder wealth. It is not listed on the stock exchange and thus has no quoted share price set by market forces. If there are problems valuing wealth, how can the entity determine how to maximise it?

SOLUTION FIVE

EQUITY LEASING HOLDINGS

5 a)

Reasons for seeking to list on LuSE

1. To obtain additional capital to finance growth, since institutional investors are more willing to invest in listed companies.

2. To reduce its cost of capital. Listed companies are perceived to be stronger, hence have better credit ratings enabling them to borrow

at lower rates than companies that are not quoted.

3. To provide an exit route for existing shareholders such as private equity investors.

4. To make Lease Holdings Equity Lease Holdings's shares more marketable, to enable shareholders to realize their wealth.

5. To create an incentive scheme for the company's managers to improve their performance.

6. To enhance the company's image through the publicity given to listed companies.

7. To create a means for effecting mergers and acquisitions through exchange of shares.

5 b)(i) & (b)(ii).

To: The CEO
From : CFO

Subject: Report on the comparative performance of Equity Lease Holdings against PEZ

Profitability
Equity Lease Holdings is less profitable compared to PEZ, as measured by ROCE and ROE. However, its operating profit margin of 42% is higher than that of PEZ of 28%, indicating a lower percentage of operating expenses relative to its income.

This suggests that Equity Lease Holdings might be able to price its products more competitively, by reducing its profit margins in order to increase its turnover after listing, which in turn might increase its ROCE and ROE in line with PEZ.

Liquidity
The company has a higher current ratio than PEZ, indicative of more favorable liquidity.

However, this might be as a result of higher loan receivables and cash, which might suggest a need for Equity Lease Holdings to improve its working capital management, by reducing amounts tied up in receivables and idle cash, after listing. It may also dispose idle non – current assets to improve its liquidity.

Gearing

Equity Lease Holdings's level of gearing is well above that of PEZ. Its interest cover is also poorer. Its financial risk is therefore much worse than that of PEZ.

To improve its gearing, It would be advisable for the company to consider using some of its cash holdings and investment in securities to reduce its gearing. Alternatively it could use its improved credit rating after listing to refinance some of its expensive debt or to finance its capital projects using a new issue of equity through a rights issue, hence avoiding debt.

The company may also revalue its assets to reduce its gearing, although this would reduce its ROCE.

Dividend Policy

The company did not pay any dividend in the current financial year, showing a preference for higher retentions, possibly to meet loan re-payments. On the other hand PEZ paid out 30% of its distributable profits.

Some investors are attracted by dividends, particularly pension funds. Therefore, depending on its expansion plans, Equity Lease Holdings will need to improve its dividend cover to 30% after listing in line with that of PEZ.

Share Price

PEZ has a higher P/E ratio of 13, showing that the market is more positive about its future prospects. The performance of Equity Lease Holdings's share price will depend on how the market will perceive its future prospects after listing, which might see its P/E ratio of 6.6 rising to 13 in line with that of PEZ.

Given an EPS of K10, the maximum share price valuation would possibly be K130 [13 X 10] for the purpose of listing it on LuSE. The minimum share price valuation would be the price it was last sold as a private company at K66, giving an IPO share price in the K66 – K130 range.

Sincerely,
Mwee Satoshi

5 b)(ii) Appendix – table of comparative ratios

	Equity Lease Holdings	PEZ
Return on (long - term) capital employed	15% [43/(99+190)*100]	22% (pre-tax)
Return on equity	30% [30/(99)*100]	42% (post-tax)
Operating profit margin	42% [67/(159)*100]	28%
Current ratio	1.4:1 [367/259]	1.2:1
Gearing (long – term debt/equity)	368% [190/99*100]	88%
Interest cover	3 [67/24]	4
Dividend payout ratio	0 %	30%
P/E ratio [# ordinary shares 99/33 = 3 million]	6.6:1[66/10]	13:1

EPS = 30 million/ 3 million = K10 per share

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.1: ADVANCED FINANCIAL REPORTING

MONDAY 9 DECEMBER 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

(a) Paplar Plc has control and significant influences in various entities. The following are the consolidated financial statements of Paplar Plc group.

Consolidated statement of profit or loss and other comprehensive income for the year ended 31 May 2019:

	K'000
Revenue	2,006.00
Cost of sales	(752.00)
Gross profit	1,254.00
Distribution cost	(624.00)
Administrative cost	(424.00)
Finance cost	(72.00)
share of associate loss	(96.00)
Profit before tax	38.00
Taxation	(15.00)
Profit for the period	23.00
Other comprehensive income	
Net actuarial gain	8.00
Total comprehensive Income	31.00
Profit for the period attributable to:	
Equity holders of parent	18.40
Non-controlling interest	4.60
	23.00
Total comprehensive income attributable to:	
Equity holders of parent	26.40
Non-controlling interest	4.60
	31.00

Consolidated statement of financial position as at 31 May:

	2019 K'000	2018 K'000
Assets		
Non-current		
Property, plant and equipment	1,214.00	1,099.00
Goodwill	108.00	110.00
Investment in associate	227.00	414.00
Deferred tax	-	40.00
	1,549.00	1,663.00
Current		
Inventory	160.00	167.00
Trade receivable	224.00	263.00
Cash & cash equivalents	126.00	60.00
	510.00	490.00
Total Assets	**2,059.00**	**2,153.00**
Equity and liabilities		
Equity		
Equity shares of K2 each	556.00	352.00
Share premium	105.00	25.00
Retained earnings	29.00	39.00
	690.00	416.00
Non- controlling interests	177.00	185.00
Total Equity	**867.00**	**601.00**
Liabilities		
Non-current		
Employee benefits	358.00	476.00
Deferred tax	28.00	-
Financial liability - Unsecured bank loan	444.00	544.00
	830.00	1,020.00
Current		
Trade payables	208.00	260.00
Taxation	46.00	132.00
Finance cost payable	108.00	140.00
	362.00	532.00
Total Liabilities	**1,192.00**	**1,552.00**
Total equity and liabilities	**2,059.00**	**2,153.00**

The following information is relevant:

(1) On 31 May 2019, Paplar Plc increased its shareholding in equity interests of Shaba Plc from 20% to 60% for a cash consideration of K48,000. Paplar Plc acquired equity interest of 20% in Shaba Plc for a cash consideration of K21,000 on 1 June 2016. The fair values of Shaba Plc's net assets were K105,000 and K115,000 as at 1 June 2016 and 31 May 2019 respectively. The fair values of non-controlling interests and 20% shareholding as at 31 May 2019 were K46,000 and K23,000 respectively.

The fair value of net assets of Shaba Plc of K115,000 as at 31 May 2019 is summarised below:

	K'000
Property, plant and equipment	157
Bank	22
Trade payables	(64)
	115

There was no disposal of subsidiary during the year to 31 May 2019.

(2) Paplar Plc disposed of an entire 30% holding of equity shares in Gala Plc on 1 January 2019 for a cash consideration of K 77,000. The fair values of the net assets of Gala Plc were K190,000 as at that date. Paplar Plc had significant influence in Gala Plc. Paplar Plc's received dividends of K4,000 from its investment in associated companies for the year to 31 May 2019.

No investments in associated companies were acquired during the year.

(3) During the year to 31 May 2019, Paplar Plc disposed of equipment with a carrying value of K66,000 at a loss of K9,000. There were no other disposals of non – current assets.

Depreciation charge for the year amounted to K92,000. This depreciation charge and the loss above were charged to cost of sales.

(4) During the year to 31 May 2019, Paplar Plc paid pension contribution of K243,000 to its defined benefit scheme. The scheme paid out pension benefits of K58,000 during the year.

Net actuarial gain was taken to share premium while net pension expenses were charged to administrative costs.

(5) Consolidated goodwill was impaired during the year to 31 May 2019. This related to subsidiaries acquired by Paplar Plc three (3) years' ago. Goodwill in Shaba Plc had not been impaired since acquisition.

(6) During the year to 31 May 2019, Paplar Plc issued equity shares for cash and paid equity dividends.

(7) It is Paplar Plc's group policy to value non – controlling interests using fair value of net assets at acquisition.

Required:

Prepare a consolidated statement of cash flow of Paplar Plc Group using the indirect method, for the year ending 31 May 2019 in accordance with the requirements of IAS 7'*Statement of cash flows*'. (28 marks)

(b) You are a fully qualified CA Zambia and the group accountant of Paplar Plc. A friend of yours, Kamara, has confided in you that he lied to his supervisor that he had passed advanced financial reporting in order to be recommended for promotion to the position of Financial Accountant. He further told you that he had never attempted the paper and that it is the only one remaining for him to complete CA Zambia examinations. He has been offered the job, however, your friend is not sure of any ethical issues that will arise from accepting the offer.

Required:

Evaluate any ethical and professional issues which may arise from your friend accepting the offer. (6 marks)

(c) Nasala Plc secured a contract to construct a twenty (20) kilometre road in one of the districts in the Republic of Zambia. The contract has a price of K1,000,000. The works are supposed to commence on 1 June 2019 and are expected to be completed on 31 May 2022. Nasala Plc however, does not have the machinery nor the money required to construct the road. The company can only provide human resource and technical support. Nasala Plc has therefore approached Jala Equipment World Plc to partner with it. Jala Equipment World Plc will provide all the required machinery. The two companies have entered into an arrangement with the following terms:

(i) Nasala Plc will be responsible for payment, insurance and safety of human resource it will contribute;

(ii) Jala Equipment World Plc will be responsible for maintenance and insurance of the machinery;

(iii) The two companies, Nasala Plc and Jala Equipment World Plc will share the contract value 40% and 60% respectively.

The directors of Nasala Plc need your advice on how the arrangement the company has entered into with Jala Equipment World Plc will be treated in their consolidated financial statements throughout the contract period. (6 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

Wanangwa Plc is a mining company whose activities incorporate everything in the metal extraction processes up to marketing the refined metals on the international commodity markets.

The following are extracts from Wanangwa's draft financial statements for the year to 31 December 2018.

Statement of Profit or Loss and Other Comprehensive Income for the Year to 31 December:

	2018 K'm	2017 K'm
Revenue	300	250
Gross Profit	50	36
Operating Profit	30	20
Finance Costs	(10)	(6)
Profit for the Year	19	11
Other Comprehensive Income		
Property Revaluation Gains	-	4
Remeasurement of Net Pension Liability	-	(5)
Other Comprehensive Income for the Year	-	(1)
Total Comprehensive Income for the Year	19	10

Statement of Financial Position at 31st December:

	2018 K'm	2017 K'm
Assets		
Non Current Assets		
Tangible	250	230
Goodwill	50	50
Financial Assets	51.3	51.3
	351.3	331.3
Current Assets	70	50.7
Total Assets	421.3	382
Equity and Liabilities		
Equity		
Share capital (K1 shares)	50	50
Retained Earnings	139	145

Other Components of Equity	20	20
Total Equity	209	215
Non Current Liabilities		
10% Loan Notes	42.3	42
13% Convertible Loan Notes	30	-
Net Defined Benefit Pension Liability	50	50
Deferred Tax	40	35
Total Non Current Liabilities	162.3	127
Current Liabilities	50	40
Total Equity and Liabilities	421.3	382

The following issues have come to light in the process of finalising the financial statements for the year to 31 December 2018:

1. A building acquired ten years ago at a cost of K50 million was included in the above financial statements at its fair value on its last revaluation on 1 January 2017 of K40 million less subsequent depreciation to 31 December 2018. It is being depreciated on a straightline basis over a total life 25 years with a nil residual value. A revaluation with a fair value of K30 million on 1 January 2018 is yet to be incorporated.

2. Wanangwa operates a defined benefit pension plan for its employees. The liability in the above financial statements is the amount brought forward at 1 January 2018 without updating it with transactions during the year to 31 December 2018. Wanangwa paid total pension contributions to the pension fund amounting to K5 million during the current period which were debited to a receivables account and reported in current assets. The current service cost for the year to 31 December 2018 was K6 million. The appropriate discount rates were 10% and 13% at 31 December 2017 and 31 December 2018 respectively. Pension paid during the period amounted to K10 million. The accrued pension liabilities and fair value of plan assets at 31 December 2018 amounted to K95 million and K38 million respectively. The pension cost for the year to 31 December 2018 is yet to be recognised.

3. The company issued 3 million 13% K10 convertible loan notes on 1 January 2018 at par. The notes pay interest on 31 December each year over their three year term to maturity. However, the holders can require the notes to be converted into K1 equity shares at any time after 31 December 2019 at a rate of four shares per loan note, otherwise they are redeemable at par. Wanangwa was in a position to issue similar notes but without conversion rights at a market interet rate of 15%. The carrying amount of the 13% convertible loan notes in the above statement of financial position represents the gross issue proceeds. The interest paid based on the coupon interest rate is what has been charged in profit or loss.

4. Wanagwa is liable to income tax on its profits at 35%.

5. The mining sector in which Wanangwa operates has a P.E ratio of 6. Wanangwa's shares were trading at a price of K1.36 and K1.42 at 31 December 2018 and 31 December 2017 respectively.

Required
Explain how Wanangwa Plc must account for the three issues (issue 1 to 3 above), including the deferred tax effects, in order to finalise the draft financial statements for the year ended 31 December 2018. **[Total: 20 Marks]**

QUESTION THREE

Sibajene Plc is a manufacturing entity based in Lusaka. The company seeks advice in accounting for some transactions in finalising the financial statements for the year to 31 December 2018.

Transaction One

Sibajene Plc. entered into a five year lease of factory plant commencing on 1.1.2018. The plant had a useful economic life of 15 years and a fair value of K3 million on that date. Sibajene spent K200,000 to transport the plant from the lessor's premises into its factory. The cost of installing the plant in Sibajene's factory amounted to K100,000. Legal costs relating to the lease contract incurred by Sibajene were K50,000. The lease requires Sibajene to initially pay a rental (due 31 December each year) of K500,000 p.a for the first three years of the lease term and K300,000 thereafter. Sibajene was required to guarantee the residual value of the plant at end of the lease term at a fair value of K1.2 million. The company has estimated (considering the rate at which the plant will be used) that the residual value is only likely to be K800,000 at end of the lease term. Sibajene is required to transport the plant back to the lessor's premises at end of the lease term. The cost of this has been estimated at K250,000.

The company's incremental borrowing rate at 1 January 2018 was 15%. All amounts requiring discounting must be discounted at 15%.

The company is seeking advice on how to account for this lease transaction.

(10 marks)

Transaction Two

On 1 December 2018, Sibajene sold a building at a price of K5 million which was also the building's fair value at that date. The building had a carrying amount of K3.2 million on that date. However, Sibajene immediately started leasing the building from the new owner under a 4 year lease. The building's remaining useful economic life at 1 January 2018 was 20 years. The leaserequires Sibajene to pay a rental of K300,000 p.a on 31 December each year over the lease term. Sibajene's incremental borrowing rate is 15%.

The sale of the building has commercial substance in accordance with IFRS 15 Revenue From Contract with Customers.

The company is seeking advice on how to account for the sale and subsequent lease transactions. (10 marks)

Required:
Advise the directors on how the above transactions must be accounted for in Sibajene's financial statements for the year to 31 December 2018. **[Total: 20 Marks]**

QUESTION FOUR

Mwenya Plc is a property development company with operations in all parts of Zambia though its headquarters are in Lusaka.

Mwenya Plc issued 10 million 10% K10 loan notes on 1 January 2018 at a premium of 3%. Issue costs amounted to 1% of the gross issue proceeds. The notes pay interest on 31 December each year over their 4 year term to maturity and are redeemable on maturity at a premium of 5%. Current general market interest rates on 1 January 2018 on the loan notes were 12%. However, the original effective interest rate on the loan notes is 10.5%. The notes were issued to finance construction of a factory building.

Construction activity for the factory commenced on 1 March 2018 though there was a stoppage between 1 May 2018 and 30 June 2018 due to a shortage of certain material in the market. As part of treasury management part of the proceeds from issuing the notes have been temporarily invested in Yobe Plc shares before they are required for construction works.

Mwenya Plc bought 1 million Yobe Plc shares representing a 10% holding at a price of K20 per share on 1 July 2018. Transaction costs paid by Mwenya Plc amounted to 1% of the purchase price. The investment has been correctly classified by Mwenya Plc as a Fair Value Through Profit or Loss (FVTPL) asset in accordance with IFRS 9. Each of Yobe Plc shares were trading at K22 on 31 December 2018. Yobe Plc has declared and paid a dividend of K0.50 per share during December 2018. Mwenya Plc plans to sell the shares in Yobe in March 2019 when the proceeds will be required for the construction of the factory. The building's construction cost incurred to date at 31 December 2018 amounted to K70 million.

Required:

Advise the directors on how the above transactions must be accounted for in Mwenya's financial statements for the year to 31 December 2018. **[Total: 20 Marks]**

QUESTION FIVE

Pana Plc is into fish farming. It sells its bream fish to various customers through its retail outlets. The company was formed six (6) years ago. The following are the financial statements of Pana Plc for the year to 31 May 2019 and 31 May 2018.

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

	2019	2018
	K'000	K'000
Revenue	6,400.00	6,000.00
Cost of sales	(2,520.00)	(1,800.00)
Gross profit	3,880.00	4,200.00
Other income	120.00	150.00
Distribution cost	(1,175.00)	(1,050.00)
Administrative cost	(2,100.00)	(1,800.00)
Finance cost	(375.00)	(195.00)
Profit before tax	350.00	1,305.00
Taxation	(70.00)	(261.00)
Profit for the period	280.00	1,044.00
Other comprehensive income		
Revaluation gain/(deficit)	(65.00)	75.00
Net actuarial gain	105.00	-
Total comprehensive Income	320.00	1,119.00

Statement of financial position as at 31 May:

	2019	2018
	K'000	K'000
Assets		
Non-current assets		
Property, plant and equipment	4,214.90	2,790.40
Investment property	1,374.00	990.00
Other intangible assets	756.00	630.00
Deferred tax	141.00	-
	6,485.90	4,410.40
Current assets		
Inventory	330.00	300.00
Trade receivables	450.00	468.00
Cash & cash equivalents	192.00	69.00
	972.00	837.00
Total Assets	**7,457.90**	**5,247.40**
Equity and liabilities		
Equity		
Equity shares of K0.50 each	960.00	630.00

Other components of equity	702.50	65.00
Retained earnings	1,230.40	1,020.40
Total Equity	**2,892.90**	**1,715.40**
Liabilities		
Non-current liabilities		
Employee benefits	780.00	924.00
Deferred tax	-	390.00
20% Loan note	3,000.00	1,560.00
	3,780.00	2,874.00
Current liabilities		
Trade payables	390.00	402.00
Taxation	20.00	61.00
Finance cost payable	375.00	195.00
	785.00	658.00
Total Liabilities	**4,565.00**	**3,532.00**
Total equity and liabilities	**7,457.90**	**5,247.40**

Additional information:

1. Pana Plc increased price of fish per kilogram to K200 from K120 for sales within the country and to US$20 from US$12 for exports effective 1 June 2018. Further, the proportion of exports in total sales value increased from 30% to 40%.
2. Other income relates to profit on disposal of non-current assets. The company has a policy of disposing of non-current assets after five (5) years of use.
3. In 2019 accounting period, Pana Plc increased number of fishing ponds to 30 from 16.
4. Pana Plc gave all the employees a salary increment of 10% effective January 2019.
5. Pana Plc imports 70% of its fish feed. Average exchange rate in 2019 accounting period was K10.9 per United States Dollar compared to K11.5 per United States Dollar in 2018 accounting period.
6. Pana Plc changed the accounting policy for its investment property from cost model to fair value model on 1 June 2018. Change in accounting policy was correctly dealt with in both accounting periods.
7. Pana Plc paid out total dividends of K175,000 in the year to 31 May 2019 and K105,000 in the year to 31 May 2018.
8. Pana Plc issued additional equity shares on 1 June 2018.

Required:

Write a report to the director that evaluates the position and performance of Pana Plc for the year to 31 May 2019.

[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

CA3.1 SUGGESTED SOLUTION

SOLUTION ONE

Paplar Plc Group

a) **Consolidated Statement of Cashflow for the year ended 31 May 2019**

	K'000	K'000
Cash flow from operating activities		
Profit before tax		38.00
Adjustments:		
Share of associate loss		96.00
Finance cost expense		72.00
Depreciation charge		92.00
Net pension expense **W6**		133.00
Loss on disposal of equipment		9.00
Profit on disposal of Gala Plc (77 - 57**W3**)		(20.00)
Goodwill impairment **W2**		4.00
Investment in associate impairment **W3**		7.00
Decrease in inventory (167 - 160)		7.00
Decrease in trade receivables (263 -224)		39.00
Decrease in trade payables [208 - (260 + 64)]		(116.00)
Cash generated from operations		361.00
Pension contribution paid		(243.00)
Taxation paid **W4**		(33.00)
Interest paid **W7**		(104.00)
Net cash outflow from operating activities		**(19.00)**
Cash flow from investing activities		
Disposal of shares in Gala Plc	77.00	
Purchase of additional shares in Shaba Plc (48 - 22)	(26.00)	
Purchase of PPE **W1**	(116.00)	
Proceeds from disposal of PPE (66 - 9)	57.00	
Dividends received from associates	4.00	
Net cash outflow from investing activities		**(4.00)**
Cashflow from financing activities		
Proceeds from issue of shares	276.00	
Dividends paid to NCI **W5**	(58.60)	
Other dividends paid (39+18.4 - 29)	(28.40)	
Loan repayment (444 - 544)	(100.00)	
Net cash inflow from financing activities		**89.00**
Increase in cash & cash equivalents		**66.00**
Opening cash & cash equivalents		60.00
Closing cash & cash equivalents		126.00

Available
Maximum

b) **Ethical issues**
Integrity is a virtue which all accountants must have. This demands being honest in all the dealings of an accountant. In fact all members of the Zambia Institute of Chartered Accountants (ZICA) are required to uphold the highest level of integrity. Lying in order to get promoted is against the principle of integrity. Further, the position of Financial Accountant will demand possession of certain level of skill, knowledge, responsibilities and competences which Kamara might not have. This is because he has neither attempted nor passed advanced financial reporting paper. His supposedly lack of knowledge of advanced financial reporting contents may adversely affect the quality of financial statements prepared by him. They would not be prepared in accordance with all the relevant accounting standards and practices. This would also lead to the financial statements not meeting the objective of financial reporting according to the IASB Conceptual Framework which is to provide information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity'.

Kamara should therefore decline the offer to avoid putting his integrity and competency into question and ultimately bringing the accounting profession into disrepute.

c) When determining the accounting treatment of the arrangement Nasala Plc needs to assess whether it has joint control in the arrangement. IFRS 11'*Joint arrangements*' defines Joint control as the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. The arrangement requires both companies to perform their respective duties for it to succeed. There is dependence on each which implies existence of joint control.

After establishing existence of joint control in the arrangement, it is important to ascertain its classification. It can either be a joint operation or a joint venture. This is significantly important for the purpose of arriving at the correct accounting treatment. In order to ascertain the classification of the arrangement, Nasala Plc should assess the terms of the contractual arrangement together with any other facts or circumstances to assess whether it has:

- Rights to the assets and obligations for the liabilities of the arrangement. This will indicate a joint operation.
- Rights to the net assets of the arrangement. This will indicate a joint venture.

Nasala Plc and Jala Equipment World Plc have not formed a separate legal entity capable of being sued and to sue as well. They have simply agreed to execute the contract together though the contract was secured by Nasala Plc.Therefore, the arrangement is not liable for any debts and obligations. Further, the creditors have rights of recourse against Nasala Plc and/or Jala Equipment World Plc. Lastly, the contractual arrangement between Nasala Plc and Jala Equipment World Plc establishes each party's share in the contract price in relation to the activities of the arrangement. Further, a joint arrangement that is not structured through a separate vehicle is a joint operation. Therefore, Nasala Plc should recognise in relation to its interest in a joint arrangement, the assets, liabilities, revenues and expenses relating to its involvement in its consolidated financial statements subject to the requirements of IFRS 15 '*Revenue from contract with customers*'. This standard requires revenue to be recognised as control is passed, either over time or at a point in time

WORKINGS

W1 Property, plant & equipment

	K'000
Opening balance	1,099.00
Depreciation charge	(92.00)
Acquisition of Shaba Plc	157.00
Disposal of equipment	(66.00)
Acquisition (bal. fig.)	**116.00**
Closing balance	1,214.00

W2 Goodwill

	K'000
Opening balance	110.00
Acquisition of Shaba Plc [(48 + 23 + 46) - 115]	2.00
Impairment (bal fig.)	**(4.00)**
Closing balance	108.00

W3 Investment in associate

	K'000
Opening balance	414.00
Disposal - Gala Plc (30% x 190,000)	(57.00)
Disposal - Shaba Plc	(23.00)
Share of loss	(96.00)
Impairment (bal. fig)	**(7.00)**
Dividends received	(4.00)
Closing balance	227.00

W4 Taxation

	K'000
Opening balance (132 - 40)	92.00
Profit or loss	15.00
Cash paid (bal. fig)	**(33.00)**
Closing balance (46+28)	74.00

W5 Non - Controlling Interest

	K'000
Opening balance	185.00
Acquisition of Shaba Plc	46.00
Profit or loss	4.60
Dividends paid (Bal. fig)	**(58.60)**
Closing balance	177.00

W6 Employee Benefits

	K'000
Opening balance	476.00
Net actuarial gain	(8.00)
Net pension expense (bal. fig)	**133.00**
Pension benefits paid (58 - 58)	-
Contribution paid	(243.00)
Closing balance	358.00

W7 Interest Payable

	K'000
Opening balance	140.00
Profit or loss	72.00
Cash paid (Bal.fig)	**(104.00)**
Closing balance	108.00

SOLUTION TWO

Transaction One

The lease of plant must be accounted in accordance with IFRS 16 Leases as it appears within the scope of the standard. Sibajene is leasing an identifiable asset over a specified lease term.

Sibajene must capitalise the lease recognise a Right of Use Asset and a Lease Liability.

The Lease liability must initially be measured at the present value of Sibajene's Minimum Lease Payments discounted at the lesse's incremental borrowing rate. This gives an initial lease liability computed as follows:

Date	Cashflow	PV factor at 15%	PV
31.12	K'000		K'000
2018	500	1.15^-1	435
2019	500	1.15^-2	378
2020	500	1.15^-3	328
2021	300	1.15^-4	172
2022	700(Note)	1.15^-5	348
Initial carrying amount of lease liability			1,661

Note: The cashflow at end of the final year of the lease is composed of the rental of K300,000 and the shortfall on the guaranteed residual value amounting to K400,000 (ie 1,200,000 – 800,000)

Subsequently, the lease liability will be measured at amortised cost. This will be as follows for the current period:

Period	Bal b/d	Finance cost	Cash Paid	Bal c/d
(y/e 31.12)	K'000	@15%	K'000	K'000
2018	1,661	249	(500)	1,410
2019	1,410	212	(500)	1,122

The total lease liability at 31.12.2018 will therefore be K1,410,000 of which K1,122,000 will be presented within non current liabilities and K 288,000 in current liabilities (K1,410 – 1,122). A finance cost on the lease liability amounting to K249,000 will be charged in P/L for the year to 31.12.2018.

The Right of Use Asset will initially be measure all amounts of cash incurred in acquiring the asset, the initial lease liability and obligations assumed in respect of decommissioning the asset. This amounts to the following:

		K'000
Cash Incurred at inception of lease:		
Transportation of the plant		200
Installation		100
Legal Costs		50
		350
Initial Lease liability		1,661
Provision for Decommissioning	250X1.15ˆ-5	124
Initial Carrying Amount of Right of Use Asset		2,135

Subsequently, the Right of Use Asset will be amortised over the shorter of the plant's useful economic life and the lease term. Amortisation charge in P/L will therefore amount to K427,000 (ie 2135/5) for the year to 31.12.2018. The Right of use asset will have a carrying amount of K1,708,000 (ie 2135-427) at 31.12.2018.

The Provision for Decommisioning Liability (transport cost in this case) which initially measured at K124,00 will subsequently increase as the discount unwinds. The Provision will be reported at K142,600 (ie 124X1.15) on 31.12.2018 with the increase to charge in P/L amounting to K18,600.

Transaction Two

The sale and lease back will be accounted for in accordance with IFRS 16 Leases. The standard requires that in accounting for a sale and lease back, an entity must first establish whether a sale has taken place based on IFRS 15 requirements. The IFRS 16 requirements relating to accounting for sale and lease back will only apply where the sale is genuine in line with IFRS 15, which is the case here. Had the sale lacked commercial substance, the transaction would be accounted for as a mere security for loan finance. In this case, the IFRS 16 reqirements will apply as below.

Sibajene must recognise a liability in respect the lease in the usual way. In this case, the lease liability will be initially measured as the PV of the lessee's MLPs as follows:

Initial Lease Liability (1.15ˆ-1+1.15ˆ-2+1.15ˆ-3+1.15ˆ-4)XK300,000 = K856,494

Subsequently, the lease liability will be measured at amortised cost. This will be as follows for the current period:

Period	Bal b/d	Finance cost	Cash Paid	Bal c/d
(y/e 31.12)	K'000	@15%	K'000	K'000
2018	856	128	(300)	684
2019	684	103	(300)	487

The total lease liability at 31.12.2018 will therefore be K684,000 of which K487,000 will be presented within non current liabilities and K 197,000 in current liabilities. A finance cost on the lease liability amounting to K128,000 will be charged in P/L for the year to 31.12.2018.

Where a Right of Use Asset arises from a sale and lease back transaction, IFRS 16 require that the initial carrying amount of the asset if a proportion of the carrying amount of the disposed of asset, in this case computed as:

Initial lease liability/Fair value of assetXCarrying Amount of asset

This gives an initial carrying amount of the Right of Use Asset in this case of:
856494/5000000X3200000 = K 548,156.

Subsequently, the Right of Use Asset will be amortised over the shorter of the plant's useful economic life and the lease term. Amortisation charge in P/L will therefore amount to K137,039 (ie 548156/4) for the year to 31.12.2018. The Right of use asset will have a carrying amount of K411,117 (ie 548,156-137,039) at 31.12.2018.

A gain on sale and lease back of the building will arise computed as follows:

Disposal Account	k'000
Disposal Proceeds	5,000
Right of Use Asset Recognised	548
Lease liability recognised	(856)
Building Derecognised	(3,200)
Gain on sale and lease back of building	1,492

The whole gain will be reported in P/L for the year to 31.12.2018.

SOLUTION THREE

Part (a)

6. The building should have been revalued on 1.1.2018 at its fair value of K30 million in accordance with IAS 16 Property, Plant and Equipment. The carrying amount on 1.1.2018 prior to the required revaluation was K 37.65 million (ie 40 – 40/17X1). Following the earlier revaluation on 1.1.2017, the building's fair value of K40 million was to be depreciated over the remaining life of 17 years (ie 2 years ago, remaining life as at 31.12.2018 is 15 years since the building had been acquired 10 years ago out of a total of 25 years). A loss on revaluation should therefore be incorporated in the financial statements relating to the revaluation at 1.1.2018 of K 7.65 million (ie 37.65 – 30). The loss must be charged in profit or loss unless it reverses a past unrealised gain (ie a gain representing the excess of the carrying amount before revaluation over what would be the carrying amount if the asset was carried at the cost model). The following computations will therefore aid in determining the appropriate accounting treatment for the loss:

	K'm
Carrying amount at 1.1.2018 before revaluation	37.65
Cost Model carrying Amount at 1.1.2018 (50 – 50/25X9)	32.0
New Carrying Amount at 1.1.2018 after revaluation (ie Fair value)	30.0

With the above in mind , a loss equal to K 5.65 million (ie, 37.65 – 32.0) is reversing a past unrealised gain as at 1.1.2018 and must therefore be reported in OCI (items that are not reclassified in P/L). The remainder of the loss will be reported in P/L. This amounts to K 2 million (ie 32 – 30).

Further, an adjustment is required to the depreciation charge for the year to 31.12.2018. The required revaluation at 1.1.2018 entails that depreciation charge on the building for the year to 31.12.2018 must be based on spreading the new carrying amount of K 30 million over a remaining life of 16 years. This gives a charge of K1.88 million (ie 30/16) instead of the amount charge on the previous fair value amounting to K2.35 million (ie 40/17 p.a). This requires a reversal in the depreciation charge for the year ended 31.12.2018 amounting to K 0.47 (ie 2.35 - 0.88).

Therefore the required adjustments to the draft accounts before the deferred tax effects would be:

	K'm	
Dr P/L (operating profit) /Retained Earnings (2 – 0.47)		1.53
Dr OCI/Revaluation Reserve/OCE	5.65	
	7.18	
Cr PPE (7.65-0.47)	7.18	

Deferred Tax effects will arise on any adjustment to the carrying amount of an asset or liability to the extent it is a temporary difference. The above adjustments have result in a net reduction in the carrying amount of the PPE by K7.18 million. This must be a tax deductible difference leading to a reduction in deferred tax liabilities. The deferred tax effects will therefore be as follows:

		K'm
Total decrease in deferred tax liabilities at 31.12.2018	7.18X35%	2.51
Decrease in defered tax to report in OCI	5.65X35%	(1.98)
Decrease to report in P/L	(balance)	0.53

Therefore the required adjustments to the draft accounts to incorporate the deferred tax effects of the revaluation adjustments are:

	K'm
Dr Deferred Tax Liabilty	2.51
Cr P/L (Income Tax Expense)/Retained Earnings	0.53
Cr OCI/Revaluation ReserveOCE	1.98
	2.51

7. Wanangwa must incorporate the pension cost for the year arising from the pension plan in the financial statements as follows:
   - Amounts to charge in P/L:

		K'm
Current service cost		6
Net Interest	50X10%	5
Total Charge in P/L		11

   - Amounts to Report in OCI:

A remeasurement gain or loss will be reported in OCI (items that are not reclassified in P/L) computed as follows:

	K'm
Net Liabilty b/d 1.1.2018	50
Movements before remeasurement:	
Cash contributions	(5)
Total pension accrued in P/L	11
	56
Remeasurement loss (balance)	1
Net liability c/d at 31.12.2018 (95 – 38)	57

The cash contributions previous debited ro receivables in current assets must be redirected and debited to the Net Penson liability.

The required adjustments before the deferred tax effects will therefore be as follows:

		K'm
Dr	P/L (Operating profit)	11
Dr	OCI/ OCE	1
		12
Cr	Net Pension Liability (57-50)	7
Cr	Receivables (Current Assets)	5
		12

Deferred tax effects will arise from adjusting the carrying amount of the Net Pension liability and the Receivables in current assets as follows:

	K'm	Comment
Reduction in receivables	(5)	Tax deductible difference
Increase in Pension Liability	(7)	Tax deductible difference
Net Tax Deductible Difference	(12)	

Therefore the overall adjustments to the receivables and the pension liablity will reduce the deferred tax liability by a total of K4.2 million (ie 35%X12). The decrease in deferred tax will be reported as follows:

		K'm
Total decrease in deferred tax liability		4.2
Amount to report in OCI	35%X1 (remeasurement)	(0.35)
Balance to report in P/L		3.85

The required adjustments to incorporate the deferred tax effects will be as follows:

	K'm
Dr deferred Tax Liability	4.2
Cr P/L (Income Tax Expense)/Retained Earnings	3.85
Cr OCI/OCE	0.35
	4.2

8. IAS 32 requires that compound instruments must be split into its components at initial recognition and each component presented and measured separately. The convertible loan notes are a compound instrument that required splitting in accordance with IAS 32.

The company should have split the notes as follows:

				K'm
Gross issue proceeds 3 millionXK10				30
Liability component:				
Date	Cashflow	PV factor	PV	
(31.12)	K'm	@15%	K'm	
2018	3.9	1.15^-1	3.39	
2019	3.9	1.15^-2	2.94	
2020	33.9	1.15^-3	22.29	(28.62)
Fair Value of Equity component				1.38

Subsequently, the liability component should have been measured at amortised cost as follows:

	K'm
Initial liability at 1.1.2018	28.62
Finance cost for the year 29.62X15%	4.29
Cash paid	(3.9)
Carrying amount to report at 31.12.2019	29.01

The required adjustments before deferred tax effects are therefore as follows:

		K'm
Dr	P/L(Finance Costs)/Retained Earnings (4.29-3.9)	0.39
Dr	13% Convertible loan Notes (29.01 – 30)	0.99
Cr	Share options Reserve (OCE)	1.38
		1.38

The deferred tax effects will arise from the adjustment to the carrying amount of the Loan notes liability. The decrease in the liability represents an reduction tax deductible temporary difference. This will give a reduction in the deferred tax liability of K 0.35 million (ie 35%X0.99). The decrease in deferred tax must be credited to P/L against the income tax expense. The required entries are:

	K'm
Cr Deferred Tax liability	0.35
Dr P/L (Income Tax Expense)/Retained Earnings	0.35

SOLUTION FOUR

Issue of 10% Loan Notes

The loan notes liability will be accounted for primarily in accordance with IFRS 9 financial instruments.

The notes are a non-derivative liability and must therefore be classified as an amortised cost item for measurement purposes. They will therefore be subsequently be measured at amortised cost using the effective interest rate of 10.5% having initially being measured at their far value including transaction costs of K101,970,000 (ie K10X10millionX1.03X0.99).

The notes will subsequently be measured at amortised cos as follows up to 31.12.2018:

Period	Bal b/d	Finance cost	Cash Paid	Bal c/d
(y/e 31.12)	K'000	@10.5%	K'000	K'000
2018	101,970	10,707	(10,000)	102,677

Therefore, the carrying amount of the 10% loan notes liability at 31.12.2018 will be K102,677,000. This must be presented as follows:

	K'000
Current liability (accrued interest) (10707-10000)	707
Non-current Liability	101,970
Total	102,677

The finance cost for the year amounting to K10,707,000 will be accounted for in accordance with IAS 23 Borrowing Costs. The standard requires that costs on borrowings to finance acquisition of qualifying assets must be capitalised as part of the cost of the qualifying asset but only to the extent that the costs accrued during periods when there are activities leading to acquisition of the qualifying asset. Qualifying assets are generally all assets that take a substantial amount of time to acquire. The notes were issued to finance construction of a building whose construction period will be substantial. The borrowing costs therefore qualify for capitalisation in accordance with IAS 23.

However, only costs accruing during the months of construction activity will be capitalised. Amounts not capitalised must be charged in P/L for the period. The finance costs will therefore be accounted for as follows:

		K'000
Total finance cost for the year to 31.12.2018		10,707
Amount to charge in P/L	4/12X10,707	(3,569)
Balance to capitalise		7,138

Investment in Yobe Plc shares

The investment in Yobe Plc equity shares will be accounted for primarily in accordance with IFRS 9 Financial Instruments. The investment constitutes an equity financial asset that is for trading as it will shortly be realised for cash to release funds for construction. Therefore the appropriate IFRS 9 classification for measurement purposes will be FVTPL (fair value through profit or loss) as instructed in the requirement.

Based on the above classification, the investment will initially be measured at fair value without incorporating (ie excluding) transaction costs. This means at the total purchase price K 20 million (ie K20X1million). The transaction costs K 200,000 (ie 1%XK20million) must, primarily be be expensed in P/L for the year the contract is entered, ie y/e 31.12.2018.

Subsequently, the investment will be measured at fair value with gains and losses primarily to be reported in profit or loss. The fair value of the investment at 31.12.2018 if K22 million giving a remeasure gain of K2 million. The dividend income of K500,000 (ie K0.5X1million) from the shares would , also primarily, be reported in P/L

The investment will be carried in the SFP ta 31.12.2018 at its fair value of K 22 million. However, since the investment was is temporary in order to earn income on borrowed funds before these are used in constructing the qualifying asset, IAS 23 requires that any income from such a temporary investment must offset the borrowing costs to capitalise. Therefore, on that basis, it would appear that the appropriate treatment of the net income from the investment in Yobe Plc shares is to offset against the borrowing costs to capitalise.

Capitalising Costs relating to construction of Factory Building

Costs of the building to be included in PPE in accordance with IAS 16 and IAS 23 at 31.12.2108 includes the following:

			K'000
Construction costs to date			70,000
Borrowing costs capitalised (see above analysis)			7,138
Income from temporary investment of borrowed funds before use in construction:			
Dividends	500		
Remeasurement Gain	2,000		
Less transaction costs	(200)		
		(2,300)	
Cost of the Factory Bulding to date		74,838	

SOLUTION FIVE

To: The Director – Pana Plc
From: Accountant
Date:
Subject: **Evaluation of position and performance of Pana Plc**

1.0 Introduction

The evaluation of position and performance of Pana Plc for the year ended 31 May 2019 is based on the financial and non-financial information for two years. Ratio analysis used is based on calculations in the workings and additional information provided in the question.

2.0 Evaluation of position and performance

2.1 Profitability

Revenue has increased by 7%**W1** despite the Kwacha appreciating to K10.9/US$ from K11.5/US$. This was mainly attributable to the increase in the selling price per kilogram from K120 to K200 for local sales and to US$20 from US$12 for exports. In addition, analysis of the sales revealed a decrease in sales in kilograms from 48.04 to 30.94 **W1**. The reduction in volume of fish sold in 2019 shows adverse effects of increased selling price.

Gross profit margin reduced from 70% to 61% **W1**. Similarly, operating profit margin reduced from 25% to 11% **W1**. The decrease in the said ratios is largely due to increased cost of 30% of fish feed bought locally as this had offset any savings in cost of feed brought about by the appreciating Kwacha, from K11.5/US$ to K10.9/US$. Further, employee related costs were increased by 10% because of salary increment. Adversely, recalculation of net operating profit, ignoring gain on disposal of non-current assets of K120,000 in 2019 and K150,000 in 2018 and gain on increase in fair value of investment of K384,000 (K1,374,000 – K990,000), would give K221,000 in 2019 and K1,350,000 in 2018. This would change net operating profit margin to 3% and 23% in 2019 and 2018 respectively. However, it seems the company considers this decrease in profitability temporal based on the decision to increase significantly the number of fish ponds from 16 to 30 and salaries of its workers.

Return on capital employed has shown a similar downward trend. It has drastically reduced from 33% to 11% **W1**. This is attributable to changing accounting policy of investment property from cost model to fair value model, increase in the number of fish ponds from 16 to 30 and a reduction in the company's profitability.

2.2 Liquidity and working capital

Current ratio has marginally reduced from 1.27 to 1.24**W2**. Quick ratio on the other hand has remained the same at 0.82 **W2**. Both ratios show that Pana Plc's current assets are just adequate to cover its current liabilities. This is further demonstrated by a reduction in trade receivables' collection period from 28 days to 26 days **W2**. Moreover, Pana Plc's trade payables' payment period reduced from 82 days to 56 days **W2.**

Inventory turnover has reduced from 61 days to 48 days **W2**. However, this is not an indication of increased level of business activity. This is because sales volume reduced from 48.04 to 30.94 **W1**. Moreover, inventory figure increased from K300,000 to K330,000. The reduction in inventory turnover was mainly attributable to increased cost of sales.

2.3 Gearing Ratios

The gearing level in relative terms has increased from 48% to 51%**(W3)** as can be seen from capital gearing ratios and from 91% to 104%**(W3)**. However, in absolute terms debt has increased from K1,560,000 to K3,000,000 representing 92%**(W3)**. This has had the effect of reducing interest cover from 7.69 times to 1.93 times **(W3)**. This is also attributable to reduction in the company's profitability.

The company will find it difficult to service current level of debt and obtain additional funding for its operations if does not improve its profitability.

2.4 Investor Ratios

Pana Plc's earnings per share has reduced from K0.83 to K0.15 **(W4)**. This is caused by reduction in the company's profitability and increased number of equity shares. However, dividend per share increased from K0.08 to K0.09 **(W4)** which may not be sustainable if the company's profitability does not improve.

3.0 Conclusion

Pana Plc has mixed position and performance. The company's profitability has declined while some liquidity ratios have materially remained the same. It has however seen some improvement in working capital management. The company needs to work on its profitability and manage its debt to sustainable levels. The company may also need to consider reducing its selling price to recapture some of its lost customers. It is however, of significant importance to also look at industry ratios to ascertain the severity of the position and performance of Pana Plc.

WORKINGS

W1 Profitability Ratios

		2019	2018
Percentage increase in revenue = Change in revenue=(6,400 - 6,000)		400.00	
Revenue for last year 6,000		6,000.00	
		7%	
Analysis of revenue			
Exports (ZMK)		2,560.00	1,800.00
Local sales (ZMK)		3,840.00	4,200.00
Average selling price per kilogram			
Exports ($20* 10.9)/($12*11.5)		218.00	138.00
Local sales		200.00	120.00
Sales in Kilograms			
Exports (2,560/218)/(1,800/138)		11.74	13.04
Local (3,840/200)/(4,200/120)		19.20	35.00
		30.94	**48.04**
Return on capital employed = PBIT = (350+375): (1,305+195)		725.00	1,500.00
CE	(7,457.9-785): (5,247.40 -658)	6,672.90	4,589.40
		11%	**33%**
Operating profit margin = PBIT = (350+375): (1,305+195)		725.00	1,500.00

	Revenue 6,400 : 6,000	6,400.00	6,000.00
		11%	**25%**
Gross profit margin = GP / Revenue	= 3,880: 4,200 / 6,400: 6,000	3,880.00 / 6,400.00	4,200.00 / 6,000.00
		61%	**70%**
Asset turnover = Revenue / Capital employed		6,400.00 / 6,672.90	6,000.00 / 4,589.40
		0.96	**1.31**
Total Expenses as a percentage of sales= Expenses / Revenue		3,650.00 / 6,400.00	3,045.00 / 6,000.00
		57%	**51%**

W2 Liquidity and working capital Ratios

Current ratio = Current assets / Current liabilities	972.00 / 785.00	837.00 / 658.00
	1.24	**1.27**
Quick ratio = Current assets – inventory / Current liabilities	642.00 / 785.00	537.00 / 658.00

	0.82	**0.82**
Inventory days = <u>Inventory x 365 days</u> Cost of sales	330 x 365 2,520.00	300x365 1,800.00
	48	**61**
Receivable collection period = <u>Trade receivables x 365 days</u> Revenue	450 x 365 6,400.00	468x365 6,000.00
	26	**28**
Payables payment period = <u>Trade payables x 365 days</u> Cost of sales	390 x 365 2,520.00	402x365 1,800.00
	56	**82**

W3 Gearing Ratios

Capital gearing = <u>Prior charge capital x 100%</u> Prior charge capital + Equity	3,000.00 5,892.90	1,560.00 3,275.40
	51%	**48%**
Debt to Equity ratio = <u>Debt x 100%</u> Equity	3,000.00 2 892.90	1,560.00 1,715.40
	104%	**91%**

Interest cover = PBIT / Interest charges	725.00 / 375.00	1,500.00 / 195.00
	1.93	**7.69**
Percentage increase in debt= current debt-debt for last year / debt for last year	1,440.00 / 1,560.00	
	92%	
Percentage increase in interest= current interest-interest for last year / interest for last year	180.00 / 195.00	
	92%	

W4 Investor Ratios

Earnings per share = Profits attributable to equity shareholders / Weighted average number of shares	280.00 / 1,920.00	1,044.00 / 1,260.00
	0.15	**0.83**
Dividend cover = Profits attributable to equity shareholders / Dividends paid	280.00 / 175.00	1,044.00 / 105.00
	1.60	**9.94**
Dividends per share = Dividends paid / Number of shares	175.00 / 1,920.00	105.00 / 1,260.00
	0.09	**0.08**

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.2: ADVANCED AUDIT AND ASSURANCE

THURSDAY 12 DECEMBER 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

You are an audit senior in SKM Chartered Accountants. You have been assigned to the audit of one of your firm's recurring audits for the current year.

The engagement partner in charge of this audit has sent you the following memo:

To: Simon

From: Engagement partner

Date: 13 January 2017

Subject: Audit of Zambezi Manufacturing Plc.

I refer you to the discussion I earlier had with you concerning the audit of Zambezi Manufacturing Plc for the year ended 31 December 2016. In view of the sudden departure of George who has taken up a job in Government as Permanent Secretary in the Ministry of Planning, you have been assigned to take over this audit as audit manager.

George has done a lot of planning work on this audit. He has, however, not done any work on materiality. You will need to compute the materiality figure to be used in the audit for the current year. I noted from a review of the previous year's working papers that the materiality level that was originally set was changed during the course of the audit. There are no working papers in the prior year audit files to explain and justify the change in the materiality figure.

We have a very tight schedule within which we are expected to complete the audit. I would like you to go through the attached notes which were prepared by George. I do not expect you to re-perform the pre audit work already done by George now that you have taken over the audit.

As you are well aware, we have three audits with the same year end as Zambezi Manufacturing Plc. In the long term the firm will need to either expand in order to meet the increased demand for its services, or consider giving up some clients so that we remain with only those we can manage to handle with our existing human resources.

My wife and I held an equal number of shares in a company in which Zambezi Manufacturing Plc holds a majority number of shares. In view of my being appointed engagement partner on the Zambezi Manufacturing Plc audit, I have sold all my shares to my wife. I do not expect that we shall have problems with the audit of Zambezi Plc, because the Managing Director is a long friend of mine and any problems should be brought to my attention quickly.

I attach the summary of information gathered by George and a checklist that you should complete as part of our policy of carrying out annual client reviews.

Appendix 1 – Background information about the client.

Zambezi Manufacturing Plc is a manufacturing company which has been operating in Zambia for the past twenty years. It is a subsidiary company of a foreign based multinational parent company. The company is inspected by the environmental management agency annually and the license renewed if the company meets all the relevant requirements.

The main legislation applicable to Zambezi Manufacturing Plc is the Factories Act and over the last three years the company has been compliant. An employee sued Zambezi Manufacturing Plc for injury suffered in the year under review at work and this case is yet to be determined by the court. The employees of Zambezi Plc contribute to the Worker's Compensation Board and the Worker's Compensation Board meets 90% of any employee claims as per the terms of their agreement with the company.

In 2015, a legal case was commenced against the company for disposing of hazardous materials in an undesignated area. This case has been on going and has not yet been concluded. The company is of the view that judgment will be in its favor and so does not see the need to provide for this in the financial statements.

A few months before the period end, Zambezi Manufacturing Plc advertised the position of Financial Controller which fell vacant. You applied for this position and you were shortlisted as the preferred candidate. At the time of the audit the position had not yet been filled.

The company has grown significantly over the last four years and in the year under review has introduced a new line of business. SKM Chartered Accountants will need to use the services of an expert in the valuation of inventory for this segment. Locally there is only one company that can undertake this task and this is the same company that Zambezi Plc uses to value its inventory at the period for the purposes of preparing the financial statements.

Appendix 2 – Notes from the meeting with the Managing Director and Operations Manager.

The company runs a production plant which has been in use for the past twenty years. There has been a noted increase in maintenance costs and sometimes, large components of equipment have had to be replaced. This has led to an increase in defects and the number of customer complaints.

There have been changes in technological advances with modern production equipment and methods being introduced on the market. The equipment currently in use is being phased out and spares are difficult to obtain and the company mostly ends up buying second hand spares from other companies using similar equipment outside the country.

The company entered into an agreement with the parent company for a technical expert to be based in Zambia to assist with the maintenance of the equipment as well as quality control.

There is an agreement to pay the parent company consultancy fees for the services of the technical expert and in the current year a total of K1.3 million has been paid.

The Managing Director is concerned about the audit fee which has been increasing over the last three years. He does not understand why this should be the case when there have been advances in the way audits are conducted with the increased use of Computer Assisted Audit Techniques (CAATs), he has suggested that instead of agreeing a fixed fee, the audit should be performed on a contingent fee basis.

Appendix 3 – Notes from the meeting with the Finance Director.

The company has met its financial performance targets in the last three years. There has, however, been a noted reduction in margins arising largely due to the increase in costs of imported materials arising from the depreciation of the local currency. It has been difficult to compete effectively due to increased volumes of cheap imported items.

Zambezi Manufacturing Plc makes taxable supplies and is registered for Value Added Tax (VAT). In an effort to boost sales in the current year, it has been agreed, in consultation with the sales manager, that where customers do not require a VAT invoice, sales should be made to customers at a VAT exclusive amount. In this way the company will be able to compete favorably on price. To facilitate this arrangement, the sales invoicing system has been changed to accommodate customers who opt not be charged Value Added Tax.

The company obtained a 10 year, 5% variable interest loan to enable it to acquire new equipment.

The Sales Manager is responsible for the granting of credit to customers. The bulk of the sales representing 40% are on credit to large companies. There has been a significant increase in the accounts receivables days compared to the previous year.

The company's Financial Controller was forced to resign because he was involved in a fraud with the sales staff. The loss arising from this fraud has not yet been established and the Finance Director has proposed that your firm carries out a forensic investigation to establish the actual loss suffered. As soon as this is done, the case will be taken to court and your firm will be required to give evidence in support of the client.

In line with the trend world over and in an effort to improve performance the remuneration policy of Zambezi Manufacturing Plc is that senior management are on a performance based salary scheme based on the annual levels of revenue and profitability.

Required:

Write a report dealing with the following:

(a) (i) Explain the meaning of materiality and distinguish between materiality for the financial statements as a whole and performance materiality. (5 marks)

(ii) Discuss the possible reasons why materiality levels set at the planning stage of the previous year's audit were revised during the course of the audit of this client and explain the materiality documentation requirements. (4 marks)

(b) (i) An evaluation of the need for your firm to have a policy on annual client reviews. (4 marks)

(ii) An evaluation of any four (4) ethical matters relevant to the audit of Zambezi Manufacturing Plc and recommend actions that must be taken by the firm. (8 marks)

(iii) Evaluation of the matters that must be considered before accepting continuing to be auditors of Zambezi Manufacturing Plc. (5 marks)

(iv) Identification of any seven (7) business risks existing in Zambezi Manufacturing Plc. relating them to the risk of material misstatement, where appropriate. (14 marks)

[Total: 40 Marks]

SECTION B

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

QUESTION TWO

Your firm of Chartered Accountants was appointed auditor of Pamodzi Ltd two years ago. The fee quoted to Pamodzi was clearly uneconomical and your firm was hoping that it would cover the losses arising from the audits from other services it had hoped to carry out for Pamodzi Ltd. This is the second year of the engagement and Pamodzi Ltd has appointed a different firm to provide the other services.

The audit of the financial statements of Pamodzi Ltd for the year ended 31 March 2017 has been concluded and the audit report was signed on 5 May 2017. You had been assigned by the engagement partner as the audit manager on this audit.

On 17 May 2017, before the financial statements are issued, you read an article in one of the daily newspapers regarding a case that is in court involving this client which had not been concluded at the year end. The newspaper article states that the supreme court has ruled in favor of the other party and Pamodzi Ltd is liable to compensate the other party a sum of K869,000.

Pamodzi Ltd had provided an amount of K470,000 as the potential liability arising from this case, in the financial statements for the year ended 31 March 2017.

You have requested the audit senior to immediately plan to carry out more work with regards to this matter and he has responded saying that your firm does not have any obligations to perform procedures or make enquiries regarding the financial statements after the date of their report.

The engagement partner additionally, wishes to appoint you as a quality control reviewer on another recently completed audit of another client of your firm, Kalungwish Plc and wishes you to carry out a hot review. During the course of the audit of the financial statements of Kalungwishi Plc, there were a number of issues that were communicated by your firm to those charged with governance. Some of these matters were considered significant to the audit. You have been provided with the following extracts which were obtained from the draft audit report:

INDEPENDENT AUDITOR'S REPORT TO THE BOARD OF DIRECTORS OF KALUNGWISHI PLC.

Opinion

In our opinion, the accompanying financial statements present fairly, in all material respects the financial position of the Company as at 31 December 2016 and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards(IFRSs).

We draw attention to the fact that in the valuation of inventory, because of its specialized nature, we engaged Reliable Valuers Ltd to conduct a valuation on our behalf.

Other information

Management is responsible for the other information. We have read the other information and have not found any inconsistences with the financial statements.

We are of the opinion that the other information shows a true and fair view of the financial statements.

Responsibilities of Management and Those Charged With Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRSs and for such internal control as management determines necessary for the preparation of financial statements.

Auditor's Responsibilities for the Audit of the Financial Statements

In accordance with our responsibility to assess the Company's ability to continue as a going concern, we have performed this duty and concluded that the company is a going concern and the use of the historical cost basis of preparing the financial statements is appropriate.

Signed: J Jones (Audit Manager)

Date: 20 March 2017

Required:

(a) Explain the meaning of lowballing and discuss the ethical guidance relating to the audit fee and the basis of determining the fee in relation to a tender for audit services. (4 marks)

(b) Discuss the assertion made by the audit senior that auditors have no responsibilities after signing the audit report. (6 marks)

(c) Discuss the action your firm should take with regards to the matter reported in the newspaper. (4 marks)

(d) Evaluate the appropriateness of the extracts of the draft audit report considering guidance that is given in the relevant ISAs with regards to audit reports. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Your firm of Chartered Accountants is considering bidding for the tender to offer audit services to Quality Paints Plc. The Managing Partner of your firm has just finished going through the advert by Quality Paints Plc requesting for invitations to express interest in offering audit services to the company. After an initial meeting with management of Quality Paints Plc the Managing Partners have concluded that the prospective client is too large for your firm to perform the audit. Further, your firm does not have some of the skill necessary to undertake the audit.

The only option that your firm has is to merge with another existing firm of auditors. Your firm has been holding discussions with a medium sized audit firm for the possibility of merging. You have received an email from your Managing Partner informing you about the breakthrough in the negotiations and that the two firms will formally merge in two months' time.

Your partner is concerned about the quality of work of the planned merged firm which will now have five offices in the country. He has suggested that there is need to conduct training for all staff within one month of merging and he has assigned different members of staff to deal with various matters.

He has asked you to prepare a presentation on quality control. All along quality was considered important at the individual audit level. With the expansion it is becoming clear that quality control must be considered at the firm level as well.

The information below relating to Quality Paints Plc was obtained by the Managing Partner:

Quality Paints Plc is a Zambian based subsidiary of Paint Manufacturers Plc based in Zimbabwe. Both companies are in the manufacture and distribution of industrial and domestic paints.

Quality Paints Plc is located in Chingola and has a large paint manufacturing plant with a market share of 45%. Due to increased liberalization in the country, there has been a significant increase in the importation of finished paints from the Far East. The mines who are the major customers have significantly reduced their paint requirements as they have opted to importing their requirements. This has resulted in reduced sales volumes and margins for Quality Paints Plc.

The major shareholders based in Zimbabwe have decided that in order to improve the profitability of the Zambian operation and avoid selling at reduced selling prices, Quality Paints Plc, should with effect from the following year export 50% of its production to Zimbabwe where the demand and market share is still high.

In this way, the profits for the group will be realised in Zimbabwe. This has also been motivated by the fact that corporate taxes in Zambia are much higher than those in Zimbabwe and so, as a result of these transfers, the company will save in terms of taxes. The transfer prices to

Zimbabwe will be 2% above cost resulting in a loss position for the Zambian subsidiary but with massive tax savings for the group as a whole.

The Chief Executive of Paint Manufacturers Plc has indicated that he has no intention of scaling down or closing the Zambian subsidiary because of low production costs and is considering exports from Zambia to other related companies in other countries.

During the year under review, business dealings between the Zambian Operation and the Parent company in Zimbabwe amounted to K1.6m.

Required:

(a) (i) Evaluate the risk of material misstatement with regards to transactions between Quality Paints Plc and Paint Manufacturers Plc. (6 marks)

(ii) Discuss the audit work you should carry out with regards to the inventory of Quality Paints Plc at the period end. (8 marks)

(b) Draft suitable notes that will form the basis of your presentation which should cover:

(i) The reasons why quality control is considered important for the firm and in the performance of individual audits. (3 marks)

(ii) The distinction, if any, between quality control at the firm level and quality control at the individual audit level. (3 marks)

[Total: 20 Marks]

QUESTION FOUR

Your firm has been appointed auditor of Mwala Ltd for the year ended 31 March 2017. This is a large company that has been involved in mining and quarrying of stone in Lusaka West. The company supplies a wide range of quarry products to a large number of construction and block making companies in the city.

The company is currently located in a highly populated area which has grown because many small holding farmers have subdivided and sold their land. The company operations involve mining and processing of stone. The company's operations cause damage to the environment and emit hazardous substances harmful to the local community in the area in which it operates.

When the company was established and given a permit, it went through an environmental impact assessment by the relevant authority. The permit was given on condition that the company restores the environment when it ceases production. To this effect the company has annually made a provision for decommissioning in its financial statements.

A pressure group was formed by the local community and it has pressurized the government to pass legislation that all open pit mining activities should not be carried out within five kilometers of residential areas. The company has bought land 15 km away from the present location.

The company set up a Research & Development department whose mandate is to come up with methods of mining which do not cause harm to the environment and people. This will involve new designs of equipment and processing plant. This research has been going on for five years now and the company is certain that it has made headway. Starting in the year under review the company has since capitalized K2.5m of its development costs. Previously all research and development costs were written off in the year they were incurred.

This is the first year your firm will be conducting an audit on the financial statements of Mwala Ltd and you have been assigned as an audit senior to assess the risks inherent in the audit of Mwala Ltd as part of the planning of the forthcoming audit.

You are required to design audit procedures to test the assertions relating to the figures contained in the draft financial statements.

Required:

(a) Discuss the reasons why it will be important for your firm to gain an understanding of the legal and regulatory framework that is applicable to Mwala Ltd. (6 marks)

(b) Discuss, giving an example, the requirement that you should design suitable audit procedures to test the assertions contained in the financial statements. (5 marks)

(c) Discuss the risk relating to the audit of development costs and state the audit procedures that should be carried out in the audit of the development costs in the statement of financial position of Mwala Ltd. (6 marks)

(d) Describe the audit evidence you expect to find with regards to the decommissioning provision in the statement of financial position of Mwala Ltd. (3 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

Advanced Technology Plc is a computer accessories manufacturing company based in the Far East. The company exports 15% of its products to Zambia and this is done through Fast Technologies Plc, a company that was set up five years ago.

In view of increased sales in Zambia, Advanced Technology Plc has negotiated a takeover of Fast Technologies Plc. as it intends to set up a manufacturing plant in Zambia. The company has engaged its auditors to carry out a due diligence review on its intended acquisition. The outcome of the study shows that the company has liquidity problems and is clearly overvalued.

Fast Technologies Plc's shares are listed on the Lusaka Stock Exchange (LuSE) and the market is aware of the negotiations for takeover that are going on. The share price dropped from K1,000 per share to K340 per share immediately the market obtained information about the poor liquidity position of the company.

Your firm of auditors has been the auditor of Fast Technologies Plc for the past three years during which the firm has issued unmodified audit opinions. John Banda bought shares in Fast Technologies two years ago relying on the audited financial statements. John is considering suing your firm arguing that he relied on the audited financial statements when deciding to buy shares in Fast Technologies Plc and as it has turned out, the shares were overvalued.

It has further been established that Fast Technologies Plc does not follow IFRSs in the preparation of its financial statements and uses a different accounting package from that of the intending predator company. The two merged companies will continue to trade with each other by way of goods being purchased or sold to the other.

Required:

(a) Advise John Banda on his intended litigation against Fast Technologies Plc and recommend to him the action needed to increase chances of successfully suing your firm. (5 marks)

(b) Explain the meaning of a due diligence review and discuss the typical matters the auditors would inquire about in a due diligence review. (5 marks)

(c) Explain the rights of group auditors in the audit of the Advanced Technology group financial statements. (5 marks)

(d) Discus the audit risks that are inherent in the audit of the Advanced Technology group financial statements. (5 marks)

[Total: 20 Marks]

END OF PAPER

3.2 ADVANCED AUDIT AND ASSURANCE

SUGGESTED SOLUTIONS

SOLUTION ONE

a) i. **Materiality:**

This is an expression used on the significance or importance of a particular matter in the context of the financial statements. Generally, a matter or figure is material if its omission or misstatement would reasonably influence the economic decisions of users taken on the basis of financial statements.

Determining the materiality level for the financial statements as a whole is a matter of professional judgment by the auditor.

Materiality for the financial statements as a whole:
This is the materiality for the financial statements computed at the planning stage of the audit using the chosen criteria. Materiality at this level may be set for the financial statements as a whole as well as for individual financial statement assertions.

Performance materiality:
Performance materiality is the level that the auditor decides to use in the actual performance of the audit.
This will depend on the assessment of risk by the auditor and is generally set at a lower figure than the materiality as a whole.

This way the auditor reduces audit risk to acceptable levels and that undetected misstatements will exceed the materiality for the financial statements as a whole.

ii. **Revision of materiality levels during the audit:**
As explained in part (i) above the determination of materiality is a matter of judgment taken at the planning stage of the audit based upon certain quantitative as well as qualitative factors.

If during the course of the audit, the auditor comes across information that would have caused him to have a different view and hence determine a different level of materiality for the financial statements as a whole or individual materiality levels, he may decide to revise the level of materiality in the light of new information.

If, for example at the initial stage the auditor concluded that the risk of the client is low but as the audit progresses discovers that the risk is much higher, he may opt to lower the materiality level in view of the increased risk of material misstatements.

Documentation requirements on change of materiality levels:
In addition to the documentation regarding the materiality levels set at the planning stage of the audit, when there is a revision in the materiality levels during the audit, the auditor should document the revision that has been made. He should document the justification for the revision to the originally set materiality levels.

b) i. Annual Client Reviews:
Client acceptance procedures are very important to the auditor. These are procedures carried out to ensure that the firm gathers sufficient information about the client when making the decision whether or not to accept to act for a particular client. This will ensure that the auditor does not accept to be auditor of a client who could be involved in criminal activities.

Similarly when he firm has continuing clients, it is necessary than annual reviews are carried out to decide whether or not to continue acting as auditors. The main argument for regular client reviews is for the auditor to assess whether ethical requirements are met before deciding to continue as auditor of a particular client.In particular the independence of the auditor should not be threatened so that objectivity is not compromised.

In the event that there are ethical problems identified, the auditor should apply the necessary safeguards to eliminate these concerns. If the matters are dealt with appropriately by applying suitable safeguards, the auditor may continue to be auditor.

If on the other hand the ethical concerns cannot be eliminated, the auditor should not continue to act as auditor of the particular client. This may require that the auditor resigns from the engagement.

ii. Ethical matters relevant to the audit of Zambezi Plc.:

1. **Shares held by the engagement partner & his wife:**
The holding of share in a company in which Zambezi Manufacturing Plc. has a majority shareholding brings out an ethical matter. This gives rise to a self-interest threat to the engagement partner. The fact that he has sold his shares to his wife does not eliminate this threat.

Action to be taken:
Guidance states that a member of the audit team and his immediate family should not have an interest in the client company nor jointly own a business with an assurance client.

The option that is available is that the engagement partner's wife should dispose of her shareholdings or alternatively another partner who has no interest should be assigned to the audit of Zambezi Plc.

2. **Friendship with Managing Director of ZambeziManufacturing Plc.**
   The close relationship between the engagement partner and the Managing Director of Zambezi Manufacturing Plc. poses a self-interest threat. By suggesting that there is unlikely to be any problems in the audit implies that the two are very close and this could affect the independence and hence objectivity of the engagement partner.

   Action to be taken:
   It will be appropriate that someone else who has no personal connection with the Managing Director should be assigned as engagement partner.

   In the event that this is not possible there should be stringent quality control procedures in place. A hot review of the working papers by another partner who will not have been involved in the audit of Zambezi Manufacturing Plc.would be appropriate.

3. **Job offer with Zambezi Manufacturing Plc.**
   The fact that Simon is shortlisted for a job as Financial Controller with Zambezi Manufacturing Plc. gives rise to a self-interest threat. He will be sympathetic to the cause of a Zambezi Manufacturing Plc. For this reason Simon will not be suitable to be assigned as Audit Manager for this assignment.

   Action to be taken:
   Simon should declare interest and should be replaced by someone else.

4. **Suggestion by Managing Director for Contingency Fee:**
   The suggestion by the Managing Director that in view of the possibility of using CAATs the audit fee should be a contingent fee gives rise to a threat to the independence of the auditor. Ordinarily, fees should be based on the time spent on the audit and the seniority of the people assigned on the audit.

   Action to be taken:
   The firm should follow the generally accepted basis of agreeing the fee with a client and must advise the Managing Director accordingly. Fees that should be used are those given per scale by the law.

5. **Firm as witness in a court case:**
   The request that the firm carries out an investigation and later appear as witness in support of Zambezi Manufacturing Plc. gives rise to an advocacy threat of the auditor. Since the firm will take a position in support of Zambezi Manufacturing Plc. it will not be objective in the performance of the audit.

   Action to be taken:
   The firm should decline to conduct an investigation and give evidence in support of the client and at the same time conduct the audit.

iii. Matters to consider before accepting continuing as auditors of Zambezi Manufacturing Plc.

1. **Compliance with ethical matters:**
   The firm should ensure that it meets the ethical matters particularly those relating to independence. This applies to the firm SKM Chartered Accountants and also for all members of the audit team on this assignment.

2. **Skills to undertake assignment:**
   The firm should evaluate whether it has the necessary skills to be able to audit this client and in particular the new line of business that Zambezi Plc. has embarked on.

3. **Time pressure:**
   It is clear that the firm will be under pressure to complete the audit within the time the client expects. This is because there three other clients with the same year end. The risk is that the work may not be up to standard but simply done so as to complete the assignment. There should be evidence that work of the required standard has been done and no shortcuts are made to complete the audit.

4. **The use of the management expert:**
   The expert that the firm intends to use is the same one that management uses as a management expert. The objectivity of this expert is put to question as he may not be objective. The firm should evaluate the reliability of this expert and if necessary seek third party confirmation.

   The firm will be responsible for the work of the expert and should therefore ensure it has confidence in the work done by the expert. The firm will need to critically review the assumptions and workings of the expert before placing reliance on his work.

iv. Business risks and risks of material misstatements of Zambezi Manufacturing Plc.

1. **The fact that Zambezi Manufacturing Plc. is a listed company:**
   Listed companies are required to adhere to the listing requirements at all the time. The fact that Zambezi Manufacturing Plc is a listed company poses a risk that it may fail to meet the listing requirements and may be subject to penalties that go with non-compliance.

   Risk of material misstatement:
   The risk arising from non-compliance with listing rules is de-listing of the company or any other stipulated penalties. These could have going concern implications for Zambezi Manufacturing Plc.

2. **Renewal manufacturing licence:**
   The renewal of the licence by the environmental regulator is subject to compliance with the regulations by Zambezi Manufacturing Plc. There is a risk that the company may not comply and so be in breach of the conditions. This could result in the non-renewal of the license or penalties charged.

   Risk of material misstatements:
   There is a risk that the license may not be renewed and the licence revoked resulting in uncertainty on the going concern aspect of the company. Where penalties are chargeable there is a risk that provisions may be understated.

3. **Compliance with factories act:**
   Being a manufacturing company, Zambezi Manufacturing Plc. is subject to strict safety laws under the Factories Act. There is a risk of non-compliance which will result in stipulated penalties being slapped on the company.

   Risk of material misstatements:
   Noncompliance with the provisions of the Factory's Act could have going concern implications for Zambezi Manufacturing Plc. and further provisions may be understated.

4. **Potential liability arising from injury of worker:**
   There is a risk that the provision for the likely cost of compensating the employee who has taken legal action may be misstated. Zambezi Manufacturing Plc should estimate realistically the outcome of the court case and provide for its share of 10%

Risk of material misstatement:
Provisions arising from the court case may be understated.

5. **Disposal of hazardous substances:**
   There is an ongoing case in court where Zambezi Plc. has been sued for disposing hazardous substances in an undesignated area. The company is most likely to be penalized and charged and since the case is still in court, it is necessary that a provision for penaltiesshould be made on condition that the provisions stipulated in IAS 37 are met.
   Risk of material misstatement:

   There is a risk that provisions may be materially misstated at the period end.

6. **The age of equipment:**
   The equipment being used is old and the suppliers of the spares no longer manufacture spares for this equipment. Further, the advances in technology suggest that the equipment being used may need to be replaced.

   Risk of material misstatement:
   It would appear that the performance of the equipment has drastically reduced and should be tested for impairment. There is a risk that impairment test may not be carried out or may be done incorrectly resulting in the equipment being carried at a higher amount than the recoverable amount in line with the provisions of IAS 36.

7. **Repairs of equipment:**
   There is a drastic increase in the repair costs of the equipment. In an effort to show improved company performance, there is a risk that repair costs may be misallocated. The financial statements may be incorrect as a result of wrong classification of the repair costs.

   Risk of material misstatement:
   There is a risk that expenses will be understated through the capitalization of repair costs. This will result in profit being overstated.

8. **Related party transactions:**
   Zambezi Plc. uses the services of a Technical expert from Head Office and pays technical fees. There is a risk that dealings with the Head Office a related party may not be at an arm’s length.

Risk of material misstatement:
The provisions of IAS 24 Related *disclosures* may not have been followed and so the financial statements being materially misstated.

9. **Not charging VAT to customer who opt:**
The accounting for value added tax with a view to increase sales is against the law and is a criminal offence. Zambezi Manufacturing Plc. is in breach of the provisions of the Value Added Tax legislation.

Risk of material misstatement:
Zambezi Plc. will be liable to penalties and also to pay the VAT not charged. The liabilities arising from this act may be understated.

10. **Performance based remuneration for management staff:**
Whereas performance based pay motivates employees to be more productive, there is a risk that this may motivate the management to falsify the financial statements in order to show a better picture than is really the case in order to earn more from the company.
Risk of material misstatement:

Costs and profit may be misstated in order to show a better picture to earn higher bonuses.

SOLUTION TWO

a) Lowballing arises where the auditor sets a fee that is too low in order to win a tender with the view that the auditor will increase the fee in future. There is no prohibition for lowballing but the auditor should carry out an audit without taking shortcuts as a result of the reduced fee and increasing costs.

   Basis for determining audit fee:
   Generally fee determination is dependent on the staff assigned on the audit and the time spent.

   The following approach will apply:
   - Ascertain what the job to be done entails.
   - Ascertain the staff required to carry out the work. In other words which level of staff will be involved and in what proportions.
   - Estimate the time expected to be spent on the audit by the different staff categories.
   - Establish the fee rates for the levels of staff on the assignment and calculate the estimated fee.

b) Auditor's responsibility after signing the audit report:
   Guidance on the responsibilities of the auditor regarding facts that are discovered after the date of the report and before the financial statements are issued is given by ISA 560 *Subsequent Events.*

   The Audit Senior is right by suggesting that the auditors do not have any obligation to undertake procedures or make enquiries regarding the financial statements after the date of their report.

   The financial statements are management's responsibility and they should inform the auditors of any material subsequent events that take place between the date of the auditor's report and the date the financial statements are issued.

   If, however, during this period the auditor becomes aware of a matter of concern to him then he will not remain passive. The auditor will find out from management the action they intend to take in view of the item. If changes are made further audit procedures will be carried out and a new report issued.

   If a new report is issued the auditor should extend the review of subsequent events to the date of the new report.

c) Action to be taken arising from newspaper article:
   The case in the question is a situation where the auditor has become aware of a matter after signing the audit report but before the financial statements are issued.

   The auditor's passive duty is triggered and he should act as follows:

- He should discuss the matter with management and find out how management wishes to deal with the issue in light of the information that has come up.
- Since the case has been concluded in the highest court in the land, there is need that management adjusts the financial statements. This will require that a provision of K869 000 should be made in the financial statements. This is an example of an adjusting event.
- If management adjusts the financial statements, the auditor will perform audit procedures on the adjustments made and issue a new audit report.
- If management declines to amend the financial statements the auditor will consider the impact this will have on the audit report.
- If financial statements are amended as appropriate, the auditor will extend the period in which he will look out for subsequent events to the new date of the revised report.

d) Evaluation of draft audit report:

1. The draft report is incorrectly addressed to the Board of Directors of Kalungwishi Plc. The report is supposed to be addressed to the shareholders of Kalungwishi Plc.

2. Paragraph 2 under the audit opinion paragraph is inappropriate. The auditor is fully responsible for all work carried out and so should not refer to the work carried out by Reliable Valuers Ltd.

3. The first paragraph of the other information paragraph of the draft report is appropriate.

   There is,however, no requirement that an opinion should be made on the other information as is the case here.

4. The assertion that the auditor is responsible for assessing whether or not KalungwishiPlc. is a going concern is incorrect. The objective of the auditors is to form an opinion on the financial statements. Management is responsible for the assessment of whether or not KalungwishiPlc is a going concern. Auditors will only assess the appropriateness of this assumption.

5. The draft report is signed by the audit manager. Audit reports are signed by the engagement partner.

6. KalungwishiPlc. is a listed company and so it is mandatory that a Key Audit Matters paragraph (KAM) be introduced. This is not the case here. The question clearly states that there were matters communicated to those charged with governance and some were considered significant. The same should have been included under the KAM paragraph.

SOLUTION THREE

a) i. Risk of material misstatements between related parties:

Quality Paints Plc. and Paint Manufacturers of Zimbabwe are related parties because Quality Paints is a subsidiary of the Zimbabwe company.

The transactions between the two currently amount to K1.6 million and they are expected to increase with the proposal that paints be transferred to Zimbabwe. There is a risk that the subsidiary may face as it intends to evade tax using transfer pricing methods. Depending on the legal implications this may cause a risk that the Quality Paints may be charged for tax evasion.

With regards to current year transactions between the two, there is a risk that disclosure of the dealings and the amounts involved may not be as per requirements of IAS 24*Related party disclosures.*

Concern of the auditor:
ISA 550 *Related Parties* gives guidance in this area. The auditor will be concerned on whether related party relationships and transactions have been appropriately identified, accounted for and disclosed in the financial statements in accordance with the framework.

There could be other related party relationships that are not obvious and that the auditor may not be aware of.

ii. Audit work regarding inventory of Quality Plc.:
Inventory of a manufacturing company such as Quality Paints Plc. is likely to be material at the period end.

The following audit procedures will be carried out:

1. Attend the inventory count that will be carried out and ensure that it can be relied upon as a basis of determining closing inventory values.
2. During the inventory count confirm that slow moving and obsolete inventory is identified and recorded separately.
3. Confirm valuation of slow moving and obsolete inventory is appropriate at NRV which appears should be the case because of reduced selling prices and margins.
4. For samples of inventory lines, examine post year-end sales to confirm the NRV and deal with as appropriate.
5. Based on the levels of obsolete inventory discuss with management any provision for obsolescence and evaluate the basis and assumptions used in determining the provision.
6. Examine delivery documentation and confirm correct cut off of inventory movements.

7. Arising from the inventory count confirm that appropriate adjustments to reflect physical stocks have been made in the general ledger.

b) i. Importance of quality in the firm and individual audit level:

Like for any product produced by a manufacturing company, quality is regarded important in the performance of audits. Customers are willing to pay for quality products and this applies to services such as audits as well.

Audits that are carried out in a manner that quality is considered important are likely to result in reliable conclusions of the work carried out. If audits are not carried out in a manner that quality is considered important, it is likely that inappropriate conclusions may be reached and the firm risks being sued for professional negligence.

ii. Distinction between quality at the firm level and individual audit level:

Quality at the firm level:

ISQC 1 – *Quality Control for Firms that Perfrom Audits and Reviews of Financial Statements and Other Assurance and Related Services Engagements* gives guidance on quality control at the firm level. This gives guidance on what the firm needs to have in place at the firm level and particularly concerns the attitude of the firm towards quality of audits.

Usually there will be a senior person who will be a quality champion and will ensure that the provisions of ISQC 1 are adhered to throughout the whole firm. In the case under review with an increased number of offices, quality control at the firm level will apply throughout the offices making up the merged audit firm.

Quality control at the individual audit level:

ISA 220 *Quality control for an audit of financial statements* gives guidance on quality control at the individual audit level.

This is guidance on quality matters when conducting individual audits and applies to audit teams assigned to carry out the audit.

For example firms will have many clients and these will be audited by audit teams. These teams must conduct quality audits and the firms should ensure that guidance given on how to manage quality at this level is followed.

Usually the engagement partner will be responsible for ensuring that quality control is followed at the individual audit level.

SOLUTION FOUR

a) **Significance of understanding regulatory environment of Mwala Ltd:**
ISA 315(Revised) *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment* gives guidance in the area of risk and the auditor.

There are various matters that the auditor should gain an understanding of. In the question at hand, Mwala Quarrying Ltd is highly regulated particularly by environmental legislation. Before performing the audit the auditor needs to assess the risks inherent with the client including the risk from the non-compliance with laws and regulations.

The main reasons for the firm understanding the regulatory framework include:

- To gain an understanding of the risk that Mwala Quarrying Ltd faces and for the auditor to be able to assess its significance.
- For the auditor to understand the impact of non-compliance with the regulations.
- Once the auditor has gained knowledge on the regulatory requirements of Mwala Ltd they will remain alert during the audit for signs of non-compliance with regulations.
- The auditor will also assign appropriate staff with the skills required for them to conduct the audit in the regulatory environment of Mwala Quarrying Ltd.
- To discuss with the rest of the audit team.
- Relate to what could go wrong at the financial statement assertion level and in particular risk of material misstatement arising from non-compliance.

b) **Financial statement assertions and audit procedures:**
Financial statement assertions are representations that management makes through the figures contained in the financial statements.

The duty of the auditor is to confirm whether or not the assertions hold true. The auditor does this by designing audit proceduresto test the assertions. When the auditor concludes from the procedures undertaken that the financial statement assertions hold true then he concludes that the financial statements have been prepared in accordance with the relevant financial reporting framework.

This means that before designing audit procedures the auditor should have the assertions in mind or else he will design procedures which do not test the assertions intended to be tested.

Example:
The financial statements of Mwala Ltd contain an amount of Inventory. There are many assertions about the figure one of which is existence. This assertion suggests that the inventory existed at the period end. In carrying out the audit with a view to test the assertion of inventory, the auditor will design a suitable audit procedure.

This procedure could be to attend and witness the inventory count conducted at the period end. Inspecting a sample of purchase invoices will not test the assertion of existence but will test another assertion of valuation.

c) Risk and Audit procedures – Development costs:

Risk of development costs:
The risk that is there in the audit of development costs is concerning the accounting treatment by a client company. IAS 38 *Intangible assets* gives guidance to the preparers of financial statements. The standard specifies the circumstances when development costs should be capitalized in the financial statements.

The risk is that the client may capitalize development costs when the conditions set out in the standard have not all been met. In deciding whether or not to capitalize, there is some judgment that requires to be made. Wherever judgment is involved the risk of material misstatement is high.

Audit procedures:

- Inspect accounting records to confirm that the project is clearly defined and the related expenditure is separately identified.
- Confirm viability of project by consulting the client's technical experts.
- Review calculations of future cash flows to ensure resources exist to complete the project
- Review the deferred expenditure to ensure that it meets the IAS 38 criteria.

d) Audit evidence – decommissioning costs:
The following audit evidence is expected with regards to decommissioning costs:

1. The agreement which gives the conditions of the license being given by the regulating body.
2. Computations of the future expected costs of decommissioning – the cash flows.
3. Assumptions used such as the discount rate in discounting the future expected cash outflows.

SOLUTION FIVE

a) **Suing the auditor for professional negligence:**
In an assurance engagement the contract is between the auditor and the client company. In the event that the auditor has been negligent in the performance of his duties, he can be sued by the company.

The company in this context means all the shareholders as a body and not individual shareholders who rely on the audited financial statements to make their investment decisions.

Individual shareholders are included in the position of third parties intending to sue the auditors. In the leading case of Caparo v Dickman it was decided that third parties will not be able to sue the auditors for negligence by virtue of their placing reliance on audited annual accounts. This includes shareholders such as John Banda who relied on the financial statements to make an investment decision.

John Banda is advised that any action in his individual capacity is likely to fail. Only the company represented by the shareholders as a whole can succeed in suing the auditors.

In this case it is assumed that a duty of care by the auditor exists but the company should prove that there was a breach of this duty and it suffered loss as a result of the breach.

b) **The meaning of due diligence review:**
A due diligence is a fact finding mission. It is usually required when there is a takeover of one company by another. It could be requested by the predator as well as the target company. The main objective is to gather information about the company and give a report to the party that requested for the review. This information enables the party make an informed decision about an acquisition.

Aspects that may be covered in a due diligence review:

1. **Assets/liabilities of the target:**
   For the purposes of gaining confidence that they are fairly valued for the purposes of the takeover and price negotiations.

2. **Management representations:**
   During the negotiations for the takeover there will be representations that management will make. During the due diligence review such representations and claims will require to be substantiated.

3. **Review of the structure of the target:**
   For the purposes of understanding how the target fits in with the predator company and decide on what changes will need to be made.

4. **Acquisition planning:**
   Establishing the benefits and drawbacks of the intended acquisition and any economies of scale that will arise with the combination.

5. **Financial position of the target company:**
   This is very important in price negotiations in a takeover. It will require a detailed examination of previous year's financial statements and any forecasts made by the target company management. There is need to establish how reasonable any assumptions made are.

6. **Assessment of the risks of target company:**
   This is risk in terms of target company markets and market share, strategy and likely future events.

7. **Evaluation of the target company business plan:**
   Evaluated in terms of how realistic it is and the reasonableness of the assumptions made when preparing the business plan.

c) Rights of the group engagement team:

In order for the group engagement team to perform its work it needs to have rights.

In the case where the group auditor is also the parent company auditor, they will have the same rights as those of auditors of single companies including:

- Right to access any information they deem necessary
- Right to notices of meetings
- Right to information and other explanations.

The companies Act 1994 s173 deals specifically with the rights of the group engagement team as follows:

- The group engagement team shall have access at all reasonable times to the accounting records of the component.
- Shall be entitled to require from any officer such information and explanations in relation to the affairs of the subsidiary as he requires with relation to the group audit.
- Shall be entitled to information from the component auditor with regards the audit of the group.

d) Risks inherent in the Advanced Manufactures group audit:

1. **Non-compliance with IFRS** – The fact that the target company does not comply with IFRSs is a risk that the consolidated financial statements will be misstated. Until such time such that the acquired company complies and adheres to the reporting standards the financial statements will need to be restated and there is a risk that this will not be done correctly.

2. **Group transactions**- The companies will trade with each other. They are related parties and so it is expected that related party transactions should be

identified and appropriately disclosed. There is a risk that this may not be the case.

3. **Unrealized profits** –Since the group companies will be trading with each other it is likely that each will hold inventory bought from the other at the period end. Since the inventory will still be within the group there is unrealized profit which should be eliminated. There is a risk that this will not be done correctly.

4. **Reliance on the work of the component auditor**:
The parent company auditors who happen to be the group auditors will place reliance on the work of the component auditor. Despite not havingaudited the component the group auditor is responsible for the opinion reached.

5. **Consolidation process** – The financial statements of the parent and the subsidiary will require to be consolidated. In the statement of financial position of the parent there will be an asset Investment in subsidiary and in the subsidiary this will be represented by the net assets of the subsidiary. There is a risk that the consolidation process may be done incorrectly.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.3: STRATEGIC BUSINESS ANALYSIS

WEDNESDAY 11 DECEMBER 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

Zambia Diamond Company

The Zambia Diamond Company is a South African-owned company that prospects for diamonds in Zambia. It is owned by Mr. Piet Botha and Ms Marie Botha, who are brother and sister. The two siblings inherited a fortune from their father and have mining interests and live comfortably in Pretoria from the proceeds made from their investment in mine explorations in not only South Africa, but in Botswana, Namibia and recently in Zambia. Piet takes an active interest in overseeing the family business empire and chairs the boards of directors of all companies owned by the family. Marie is not involved in the running of the various business concerns but sits back in relaxation and comfortable luxury from the proceeds of the family business empire. As a family, the Botha family is a living testimony of the benefits of capitalism and is considered one of the wealthiest in South Africa.

Mr. Johannes de Klerk, a veteran engineer with over thirty years mining experience, is employed as General Manager of Zambia Diamond Company.Mr. Osborne Mwangata is Corporate Affairs Manager of Zambia Diamond Company. He has been tasked by Mr. Johannes de Klerk to be on hand and officially hand over to the Republican Vice President a clinic the company has built for the local community in one of the areas it prospects for diamonds. Upon receiving the clinic on behalf of the government and the local community, the Vice President profusely thanks Zambia Diamond Company for building a clinic for the community and urges other companies to emulate the example set by Zambia Diamond Company.

However, this gesture of generosity to the Zambian people has not been well received in Pretoria by Ms. Marie Botha. She has threatened her brother that if this 'waste and sabotage to her investment' continues, she will have to get rid of her shares in the Zambia Diamond Company. Moreover, she has insisted, social programs are the responsibility of a government and not of a company. In a telephone call,Marie Botha has told Johannes de Klerk that "…all this talk about corporate social responsibility makes me uneasy over here. As a family, we have achieved success by working hard and building our companies into successful ventures by carefully looking after every cent and prudently reinvesting whatever money we have made into business and not by giving it away."

Required:

(a) Explain the relationship between Strategy and Corporate Social Responsibility?

(8 marks)

(b) Discuss, with particular reference to Zambia, any three (3) arguments against and any three (3) arguments for corporate social responsibility. (12 marks)

(c) Discuss two (2) stances of corporate social responsibility. (10 marks)

(e) Describe what is considered to be the basic elements of corporate social responsibility.

(10 marks)

[Total: 40 Marks]

SECTION B

Answerany THREE (3) questions from this section.

QUESTION TWO

Fashiono Ltd is a successful clothing manufacturer based in Kitwe with global brands that are well-known and prestigious. Taking over in 2000, Linda Mwale has served the company as CEO, Managing Director and Chairman of the Board of Directors. Under her leadership, the company grew from K50million in sales revenues to K200million in 2010. The company then began to experience problems during 2009 whereby due to falling earnings, the stock price on the Stock Exchange went down from K44 per share in the middle of 2009 to just K5 by the middle of 2011. The company also accumulated a huge debt of K100 million as a result of the numerous acquisitions it had made including the employing of relatives and management awarding themselves hefty salary increments and many other perks. Bankruptcies of important customers and enhanced business competition that has led to a price war on many of its products has reduced both sales and profits. Fashiono is additionally facing a trademark violation lawsuit from one of its key customers which accounts for the biggest source of its income.Financial analysts and other observers seem not to like the continual restructuring charges and reduced earnings that the company has been experiencing. Although investors in the company (stockholders) are increasingly unhappy and getting concerned with the company's performance especially the dropping stock price, the Board of Directors itself doesn't seem to be bothered about the turn of events, apparently seemingly unconcerned.

Required:

(a) Using agency theory, explain the agency or corporate governance problem that Fashiono is facing. (5 marks)

(b) Describe the roles of the Board of Directors and evaluate its performance regarding the unfolding situation at Fashiono. (4 marks)

(c) Describe the type of Board that this company has in terms of its characteristics and performance. (4 marks)

(d) Given that the shareholders' equity is K500m, the debt is K100m and the interest is K10m per annum, calculate the gearing ratio of this company. (7 marks)

[Total: 20 Marks]

QUESTION THREE

Out of 50 beers drunk by South Africans, 49 are brewed by South African Breweries (SAB). Founded more than a century ago, SAB controlled most of the local beer market by 1950 with brands like Castle and Lion, and now new brands have been included like Mosi and Nile. When the government repealed the ban on the sale of alcohol to blacks in the 1960s, SAB and other brewers competed for the rapidly growing market. SAB fought successfully to retain its dominance of the market. With the end of apartheid, foreign brewers have been tempted to break SAB's near-monopoly, but have been deterred by the entry barriers SAB has erected in terms of huge capital investments. (Adapted from: Wheelen& Hunger, Strategic Management and Business Policy, Prentice Hall, 2002).

Required:

(a) Draw a Value Chain and use it to explain the source of the competitiveness for SAB as evidenced by its success in its industry sector. (6 marks)

(b) Use the SWOTbusiness analysis model to explain SAB's approach to strategy and the benefits the company could be deriving from such an approach for optimum performance.

(8 marks)

(c) Describe the process of strategic choice that companies like SAB use to choose the best business strategy that can help them compete successfully in their industry and markets.

(6 marks)

[Total: 20 Marks]

QUESTION FOUR

A survey by the Ethics Resource Centre of 1,324 employees of 747 American companies found that 48% of employees surveyed said that they had engaged in one or more unethical and/or illegal actions during the past year. The most common questionable behaviour involved cutting corners on quality (16%), covering up incidents (14%), abusing or lying about sick days (11%), and lying to or deceiving customers (9%). Some 56% of workers reported pressure to act unethically or illegally on the job. (The Des Moines Register, 1997).

Required:

(a) Describe how this company can safeguard its systems and procedures in terms of unethical behaviors like the ones cited above. (7 marks)

(b) Describe a suitable model that this company can utilize to determine the most ethical outcome of implementing a strategy to curb alcohol and drug abuse among its employees. (5 marks)

(c) Suppose that this company is facing serious problems of sexual harassment among its employees which is negatively affecting its performance. The following figures apply here: Book value of capital employed = K500,000; NOPAT = K100,000; WACC = 20%. Calculate the EVA and determine the managerial performance of this company. (8 marks)

[Total: 20 Marks]

<u>QUESTION FIVE</u>

Mindolo Beverages Company is seeking to diversify into the opaque beer industry on the Copperbelt which is not only highly competitive but also profitable. The company has carried out a market research and recognizes that it would get a good return on its investment in this industry but it also realized that there is likely to be some barriers to entry into this market.

(a) Demonstrate to this company any five (5) entry barriers it is likely to face as it embarks on this choice of strategy. (10 marks)

(b) Draw and use the five forces model to analyze this industry. (5 marks)

(c) Advise the company on whether to enter this industry or not. Justifying your answer

(5 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.3 SUGGESTED SOLUTIONS

SOLUTION ONE

Zambia Diamond Company

a) *What is the relationship between Strategy and Corporate Social Responsibility?*

The relationship between strategy and Corporate Social Responsibility

- Strategy has been defined as any plan or decision that guides a firm to success or profitability. Corporate social responsibility has been defined as the concern by a firm for the welfare of society manifested by the effort a firm makes to better the welfare of society or the effort a firm makes not to harm society as it pursues profit.
- The link between the two centers on profitability. A firm can contribute to the betterment (success) of society, first, when it uses its profit to contribute to the welfare of society and, second, when it restrains itself from making profit if doing so will cause harm to society.
- Society benefits from strategy in two ways: when a firm uses its profit to contribute to the welfare of society and when it restrains from making profit in a way which is harmful to the public.
- Strategy must lead to types of success: one to economic profit and two to social progress. The first type of progress arises when a firm uses its profit to address the concerns of society. The second arises when a firm denies itself profit in order not to harm society.

b) *Discuss, with particular reference to Zambia, any three (3) arguments against and any three (3) arguments for corporate social responsibility.*

The case for and against corporate social responsibility

- The case against corporate social responsibility is rests on the use of economic profit for what is seen as a non-economic endeavor. It is argued that the primary purpose of a business is economic and corporate social responsibility undermines this goal by seeking to use profit to non-economic ends or denying firms an opportunity to pursue profit for moral and ethical reasons. Thus corporate social responsibility is seen to be at variance with basic purpose of a business.
- It is also argued that the pursuit of the economic motive results in a good for society as a whole, particularly when business organizations are allowed to reinvest the profit that goes on to promote economic progress for society.

- It is further argued that when business activity results in some harm to the public, governments intervene and regulate such behavior or activity. However, business should abide by any such regulation or law.
- The case for corporate social responsibility rests on the need to conduct business in an ethical and moral manner and on the challenges government have in addressing the myriad of social problems. More specifically, it is argued that:
  - Government regulation is not a perfect substitute for reconciling private and public interest; laws are all too often not specific enough to cover all areas of misconduct and come after the public experiences harm from conduct of business
  - The Government does not have the capability to address all matters of concern to society; on the contrary, business have the capacity address many of the concerns of society
  - Business should be concerned from the perspective of human concern for the disadvantaged in society
  - It is better to pre-empt confrontation which may arise when society is in need of something but those who can assist are uncaring or indifferent to the harm business may cause to society.

c) *Identify two (2) stances of corporate social responsibility*

The following will be appropriate in identification of corporate social responsibility stances (Johnson, Scholes and Whittington)

i. Laissez- faire
ii. Enlightened self-interest(long term shareholder interest)
iii. Multiple stakeholder obligations
iv. Shapes of society

i. **Laissez- faire**

Organizations which adopt the Laissaz-faire stance take the view that organization's only responsibilities are the short term interest, to make profits, pay taxes and provide jobs.

Organizations adopting this view believe that it is the government's role to prescribe through legislation and regulation, the constraints which are placed on the business in their pursuit of economic efficiency.

Laissez-Faire organizations will meet the minimum obligations but not more.

ii. **Enlightened self-interest(long term shareholder interest**)

The rationale behind the enlightened interest, the stance is that there can be a long term benefit to shareholders from well managed relationship with other stakeholders. Therefore, the justification for social action is that it makes good business stance

There are two reasons why an organization might take wider views of ethical responsibilities when considering the long-term interest of the shareholders namely:-

- Organization's corporate image may be enhanced by an assumption of wider responsibilities. The cost of understanding such responsibilities maybe justified as essentially promotional expenditure..
- The responsible exercise of corporate power may prevent a build-up of social and political pressure for legal regulation. Freedom of action may be preserved and the burden of regulation lightened by acceptance of ethical responsibilities.

iii. **Multiple stakeholder Obligations**

The organizations adopting this stance accept the legitimacy of the expectation of stakeholders other than shareholders and build those expectations into the organizations stated purposes, such organizations recognize that without appropriate relationships with groups such as suppliers, employees and customers, they would not be able to function.

However organisations adopting this stance also argue that performance should not be measured by simply through the financial bottom line. They argue that the key to long term survival is dependent on social and environmental performance.

iv. **Shapes of society**

Shapes of society regard financial considerations as being of secondary importance to enhance society and social norms. For such organizations, ensuring that society benefits from this action is more important than financial and other stakeholder's interest.

d) *Describe what is considered to be the basic elements of corporate social responsibility.*

CSR is more closely associated with contemporary business issues and concerns organizations giving something back to society, and being good citizens. Therefore in contrast to ethics CRS is socially mediated and likely to be specific to the time and culture in which it is associated.

- Staff development
- Equal opportunities in statements
- written anti-discrimination policies
- Commitments to reporting on CSR
- Policies for restricting child labor
- Policies on fair trade
- Commitments on local community protection.

It can be suggested that companies achieve society's expectations that they are good corporate citizens through philanthropic responsibilities. This can involves supporting activities and projects such as schools, sports, and other community concerns.
However, an important point to note about philanthropic responsibilities is that while local communities may hope that companies contribute to their well-being, it does not make the companies unethical if they do not.

Philanthropic responsibilities may be desired by society, but companies are not obliged to make such contributions, and they should not be considered unethical.
A business managed with the sole objective of maximizing shareholders wealth can be run in just an ethical, a fashion as one in which fair wider stakeholders responsibility is assured. On the other hand, there is no doubt that large businesses have behaved irresponsibly in the past and some continue to do so.

SOLUTION TWO

a) *Using agency theory, explain the agency or corporate governance problem that Fashiono is facing.*

Corporate governance is the influence and power of the stakeholders to control the strategic direction of the organization in general, especially the authority of the chief executive and other senior officers of the organization itself. The agency or corporate governance problem in joint stock companies derives from the principals (owners) not being able to run the business themselves and therefore having to rely on agents (directors) to do so for them. The daily running of a company is the responsibility of the directors and other managers to whom the directors delegate.

The corporate governance or agency problem therefore is whereby the managers who have been entrusted with the resources of the company pursue their own personal objectives instead of those for the organization to maximize its returns. For these reasons, there is the potential for conflicts of interest between management and the shareholders/owners of capital.

In the case of Fashiono Ltd, the corporate governance problem is exhibited through the various managerial actions like a single person serving as the CEO, Managing Director and Chairman of the Board of Directors for the organization. The company also accumulated a huge debt of K100 million as a result of the numerous acquisitions it had made including the employing of relatives and management awarding themselves hefty salary increments and many other perks. Financial analysts and other observers seem not to like the continual restructuring charges and reduced earnings that the company has been experiencing. Although investors in the company are increasingly unhappy and getting concerned with the company's performance especially the dropping stock price, the Board of Directors itself doesn't seem to be bothered about the turn of events, apparently seemingly unconcerned. Thus the management and directors seem to be more focused on benefiting from the company at the expense of the stockholders.

b) *Describe the roles of the Board of Directors and evaluate its performance regarding the unfolding situation at Fashiono.*

The Roles of Board of Directors

1. To establish the organization's strategic direction and aims, in conjunction with the executive.
2. To ensure accountability to the public for the organization's performance.
3. To ensure that the organization is managed with probity and integrity.

This involves the following:

a. Constructively challenging and scrutinizing the executive.
b. Ensuring that the public voice is heard in decision-making.
c. Forging strategic partnerships with other organizations.

d. Managing potential conflicts of interests.
e. Monitoring risks, control systems and governance.

Board Performance Evaluation

The appraisal of the board's performance is an important control over it, aimed at improving board effectiveness, maximizing strengths and tackling weaknesses.

The board of this company is not carrying out any of the roles it is supposed to carry out to ensure that the company is managed and operates properly. It is a corporate governance mechanism that is used by the owners of the company to control the behavior of the executive but this board is clearly failing the company owners.

Hence the board of Fashiono can be classified as being an ineffective one since it seems not to be concerned about what was happening in the company in terms of its management and the resultant poor performance.

c) *Describe the type of Board that this company has in terms of its characteristics and performance.*

Based on its performance, certain criteria are employed to assess the board and for the Fashiono board, it can be described as the semi-detached board.

The characteristics of this type of board are:

- being out of touch with the company;
- making little attempt to implement decisions;
- poor monitoring of decision-making that is carried out by the executive.

Hence the board of Fashiono can be classified as being an ineffective one since it seems not to be concerned about what was happening in the company in terms of its management and the resultant poor performance.

d) *Given that the shareholders' equity is K500m, the debt is K100m and the interest is K10m per annum, calculate the gearing ratio of this company and explain to management what the answer implies.*

Gearing = Interest bearing debt / Shareholders' equity + Interest bearing debt x 100

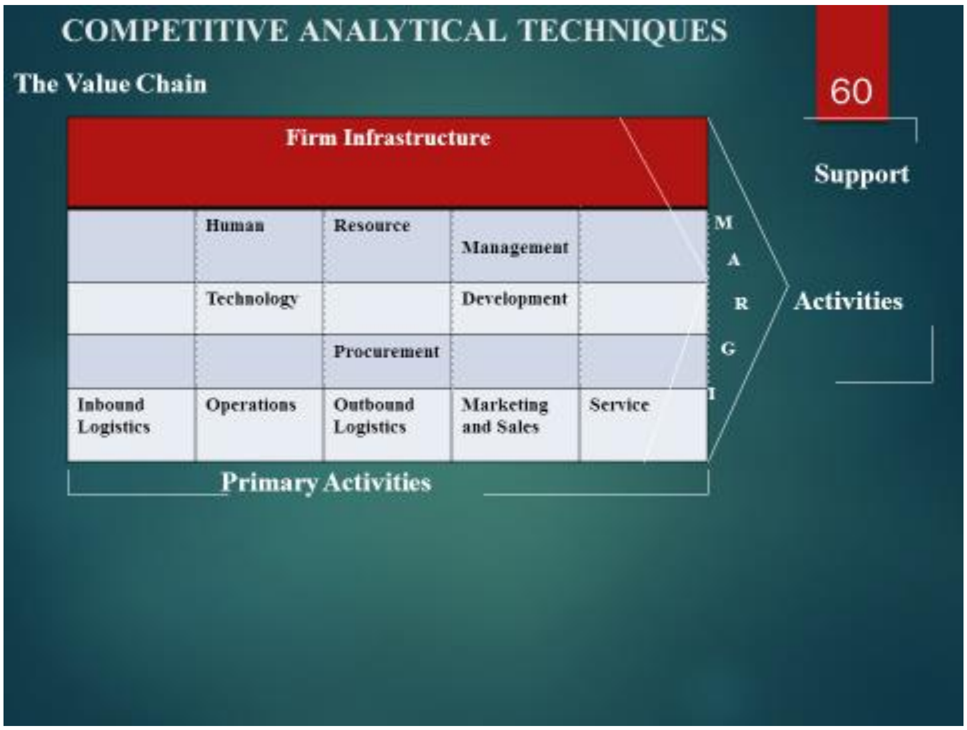
= K100m / K500m + K100m x 100

= 16.7 %

The gearing ratio should not be more than 50% or the company may experience difficulty in servicing the debt and then become bankrupt. Hence this gearing ratio is manageable and non-threatening to the company in terms of survival.

SOLUTION THREE

a) *Draw a Value Chain and use it to explain the source of the competitiveness for SAB as evidenced by its success in its industry sector.*



Value Chain Analysis

Competitive advantage cannot be understood by looking at a firm like SAB as a whole.

It stems from the many discrete activities a firm performs in designing, producing, marketing, delivering, and supporting its products.

Each of these activities can contribute to a firm's relative cost position and create a basis for differentiation.

The value chain disaggregates a firm into its strategically relevant activities in order to understand the behavior of costs and the existing and potential sources of differentiation.

A firm gains competitive advantage by performing these strategically important activities more cheaply or better than its competitors.

Value chain activities can be categorized into two types:

Primary activities include inbound logistics, operations, outbound logistics, marketing and sales, and service.

Support activities include infrastructure, human resource management, technology development and procurement.

These support activities are integrating functions that cut across the various primary activities within the firm.

Managerial Significance

Competitive advantage is derived from the way in which firms organize and perform these discrete activities within the value chain.

To gain competitive advantage over its rivals, SAB must deliver value to its customers through performing these activities more efficiently than its competitors or by performing the activities in a unique way that creates greater differentiation.

b) Use the SWOT business analysis model to explain SAB's approach to strategy and the benefits the company could be deriving from such an approach for optimum performance.

The TOWS matrix (Threats, Opportunities, Weaknesses, Strengths) emphasizes the importance of threats and opportunities. It is thus a positioning approach to strategy. It also categorizes strategic options as follows:

SO strategies employ strengths to seize opportunities.

ST strategies employ strengths to counter or avoid threats.

WO strategies address weaknesses so as to be able to exploit opportunities.

WT strategies are defensive, aiming to avoid threats and the impact of weaknesses.

These four groups of strategies tend to relate well to different time horizons in terms of planning. The SO strategies may be expected to produce good short-term results, the ST and WT strategies are more relevant to the medium term while the WO strategies are likely to take much longer to show results.

SAB seems to be utilizing the SO and ST strategies so as to produce good short-term and medium-term results.

Benefit:This time horizon perspective can be linked to the overall resource picture of SAB. Hence SO strategies can be profitable in the short term by generating the cash needed for investment in WO strategies, improving current areas of weakness so that further opportunities may be seized. The ST and WT strategies are likely to be more or less resource-neutral, but care must be taken to achieve an overall balance.

c) *Describe the process of strategic choice that companies like SAB use to choose the best business strategy that can help them compete successfully in their industry and markets.*

The Strategic Choice Process

Strategic choices are done at both the corporate and business unit levels. At the level of the business unit, these choices are about how to achieve competitive advantage and are based on an understanding of customers and markets.

There are three generic business strategies for competitive advantage. The cost leadership strategy involves being the lowest cost producer in the industry as a whole. The differentiation strategy involves the exploitation of a product or service which the industry as a whole believes to be unique in some important characteristic. The focus strategy involves a restriction of activities to only part of the market or market segment.

Business unit competitive strategy selection involves making a choice between the three generic business strategies or the firm may risk ending up being stuck-in-the-middle. Such a choice involves assessing each strategy in terms of its ability to make the organization achieve competitive advantage.

Companies pursue a business-level strategy to gain competitive advantage that allows them to outperform rivals and achieve above-average returns. Each of the generic business 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.

The cost leader chooses a low level of product differentiation because differentiation is expensive – if the company expends resources to make its products unique, then its costs rise. The cost leader also normally ignores the different market segments and positions its product to appeal to the average customer. This is because developing a line of products tailored to the needs of different market segments is an expensive proposition. In developing distinctive competencies, the overriding goal of the cost leader must be to increase its efficiency and lower its costs compared to its rivals. The development of distinctive competencies in manufacturing and materials management is central to achieving this goal. Achieving a low-cost position may also require that the company develop skills in flexible manufacturing and adopt efficient materials-management techniques.

A differentiator chooses a high level of product differentiation to gain a competitive advantage. Product differentiation can be achieved in three principal ways – quality, innovation, and responsiveness to customers.

For the focus strategy, differentiation can be high or low because the company can pursue a low-cost or a differentiation approach. As for customer groups, a focused company chooses specific niches in which to compete rather than going for a whole market, as a cost leader does, or filling a large number of niches, as a broad differentiator does. The focused firm can pursue any distinctive competency because it can seek any kind of differentiation or low-cost advantage. Differentiation can be high or low because the company can pursue a low-cost or a differentiation approach. As for customer groups, a focused company chooses specific niches in which to compete rather than going for a whole market, as a cost leader does, or filling a large number of niches, as a broad differentiator does. The focused firm can pursue any distinctive competency because it can seek any kind of differentiation or low-cost advantage.

SOLUTION FOUR

A) *Describe how a company can safeguard its systems and procedures in terms of unethical behaviors like the ones cited above.*

i. Compliance with fundamental principles should be stressed by the firm's leadership.
ii. The expectation that employees will act in the public interest should be established by the firm's leadership.
iii. Quality control policies and procedures should be in place.
iv. Documented policies covering independence threats and safeguards in relation to assurance engagements.
v. Documented internal procedures requiring compliance with fundamental principles.
vi. Policies and procedures enabling identification of interests and relationships between the firm's team and clients.
vii. Policies and procedures to manage reliance on revenue from a single client.
viii. Using different teams for non-assurance work.
ix. Prohibiting individuals who are not team members from influencing the outcome of the engagement.
x. Timely communication of policies and procedures and appropriate training and education.
xi. Designating a senior manager to be responsible for overseeing quality control.
xii. Advising staff of independence requirements in relation to specific clients
xiii. Disciplinary measures.
xiv. Promotion of communication by staff to senior management of any ethical compliance issue that concerns them.

b) *Describe a suitable model that a company can utilize to determine the most ethical outcome of implementing a strategy to curb alcohol and drug abuse among its employees.*

The AAA Model

The American Accounting Association Model can be used and it recommends a 7-step procedure as follows:

- What are the facts of the case?
- What are the ethical issues in the case?
- What are the norms, principles and values related to the case?
- What are the alternative courses of action?
- What is the best course of action that is consistent with the norms, principles and values identified in Step 3?
- What are the consequences of each possible course of action?
- What is the decision?

c) *Suppose that this company is facing serious problems of sexual harassment among its employees which is negatively affecting its performance. The following figures apply here: Book value of capital employed = K500,000; NOPAT = K100,000; Cost of Equity = 15%; Equity = 75%; Pre-tax cost of debt = 18%; Debt = 25%. Calculate the EVA and determine the managerial performance of this company.*

WACC = (0.75 x 15) + (0.25 x 18) = 15.75 %

EVA = Net Operating Profit After Tax (NOPAT) – (WACC x Book Value of Capital Employed)

= K100,000 – (15.75 % x K500,000)

= K100,000 – K78,750

= K21,250 = Profit added per year.

As % Of Book Value of Capital Employed = K21,250 / K500,000 x 100 = 4.25 %

This is much less than the WACC, hence the managerial performance is very poor.

SOLUTION FIVE

a) *The Company is likely to face any of the following*:

(1) Economies of scale due to as barriers to small entrants and the inability to gain access to technology and specialized know how

(2) Threat to market share due to existing firms by large entrants

(3) Learning and Experience Curve Effects

(4) Brand preference and customer loyalty

(5) Capital requirement - The larger the total dollar investment needed to enter the market successfully the more limited the pool of potential entrants

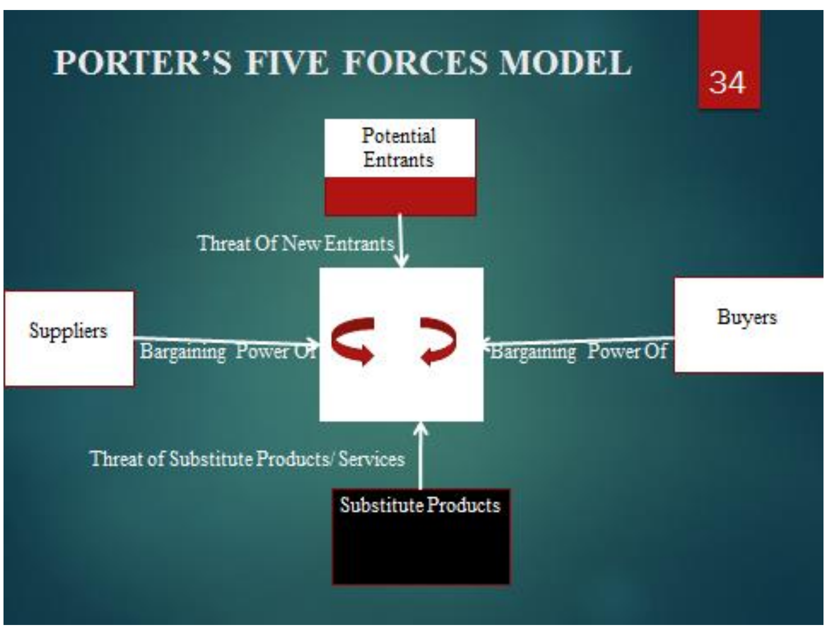
(6) Cost disadvantages independent of size. Existing firms may have cost advantages not available to potential entrants regardless of entrants size e.g. access to cheapest raw materials patents.

(7) Access to distribution channels.

(8) Regulatory policies - Government agencies can limit or even bar entry requiring licences and permits e.g. banks, lottery, radio and TV station, insurance.

(9) Tariffs and International trade restrictions

b) *Draw and use the five forces model to analyze this industry.*



c) *Advise the company on whether to enter this industry or not. Justifying your answer*

The company can enter the industry since most of the five forces are weak except the barriers to entry since there some established companies in the industry. The company can easily get through the barriers since they are not high enough.

CHARTERED ACCOUNTANT ZAMBIA

ADVISORY LEVEL – PUBLIC PRACTICE ROUTE

CA 3.4: ADVANCED TAXATION

THURSDAY 12 DECEMBER2019

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

INSTRUCTIONS TO CANDIDATES

1. You have fifteen (15) minutes reading and planning time. Use it to study the examination paper carefully so that you understand what to do in each question. DO NOT write in your answer booklet during this TIME.

2. This paper is divided into TWO sections: Section A: ONE Compulsory Question. Section B: FOUR (4) Optional Questions. Attempt any THREE (3) questions from section B.

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

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

5. **Cell phone**s are **NOT** allowed in the examination room.

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

7. All workings must be done in the answer booklet.
8. Present legible and tidy work.
9. Graph paper (if required) is provided at the end of the answer booklet.
10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

Taxation table

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K39,600	first K39,600	0%
K39,601 to 49,200	next K9,600	25%
K49,201 to K74,400	next K25,200	30%
Over K74,400		37.5%

Income from farming for individuals

K1 to K39,600	first K39,600	0%
Over K39,600		10%

Company Income Tax rates

On income from manufacturing and other	35%
On income from farming	10%
On income of Banks and other Financial Institutions	35%
On income from mineral processing	30%
On income from mining operations	30%
On income from manufacture of products made out of copper cathodes	15%

Mineral Royalty

Mineral Royalty on Copper

Range of Norm Price	Mineral Royalty Rate
Less than US$4,500	5.5% of norm value
From US$4,500 to less than US$6,000	6.5% of norm value
From US$6,000 to less than US$7,500	7.5% of norm value
From US$7,500 to less than US$9,000	8.5% of norm value
From US$9,000 and above	10% of norm value

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Cobalt and Vanadium	8% of norm value
Energy and Industrial Minerals	5% of gross value

Gemstones	6% of gross value
Precious Metals	6% of norm value

Capital Allowances

Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance –	Plant used normally	25%
	Used in Manufacturing and Leasing	50%
	Used in farming and agro-processing	100%

Non- commercial vehicles

Wear and Tear Allowance	20%

Industrial Buildings:

Wear and Tear Allowance	5%
Initial Allowance	10%
Investment Allowance	10%

Low Cost Housing **(Cost up to K20,000)**

Wear and Tear Allowance	10%
Initial Allowance	10%

Commercial Buildings

Wear and Tear Allowance	2%

Farming Allowances

Development Allowance	10%
Farm Works Allowance	100%
Farm Improvement Allowance	100%

Presumptive Taxes

Turnover Tax 4%

Presumptive Tax for Transporters

Seating capacity	Tax per annum	Tax per day
	K	K
From 64 passengers and over	10,800	29.60
From 50 to 63 passengers	9,000	24.70
From 36 to 49 passengers	7,200	19.70
From 22 to 35 passengers	5,400	14.80
From 18 to 21 passengers	3,600	9.90
From 12 to 17 passengers	1,800	4.90
Less than 12 passengers and taxis	900	2.40

Property Transfer Tax

Rate of Tax on Realised Value of Land, Land and Buildings and shares	5%
Rate of Tax on Realised Value on a transfer or sale of a mining right	10%
Rate of Tax on Realised Value on a transfer of Intellectual Property	5%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged below 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty K**	**Excise duty K**	**Customs duty K**	**Excise duty K**
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778	22,223	8,889	11,112
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0

	Aged below 5 years		Aged 5 years and over	
Motor cars and other motor vehicles principally designed for the transport of persons including station wagons and racing cars	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Sedans				
cylinder capacity not exceeding 1000 cc	12,490	10,824	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	16,058	13,917	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	16,545	21,508	8,423	10,950
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	10,528	13,687
Cylinder capacity exceeding 3000 cc	22,561	29,329	12,032	15,642
Hatchbacks				
cylinder capacity not exceeding 1000 cc	10,705	9,278	7,136	6,185
Cylinder capacity exceeding 1000 cc but not exceeding 1500 cc	14,274	12,371	8,564	7,422
Cylinder capacity exceeding 1500 cc but not exceeding 2500 cc	15,041	19,553	8,423	10,950

Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	16,545	21,508	10,523	13,687
Cylinder capacity exceeding 3000 cc	19,553	25,419	12,032	15,642
Station wagons				
cylinder capacity not exceeding 2500 cc	16,545	21,508	9,024	11,731
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	18,049	23,463	13,357	17,598
Cylinder capacity exceeding 3000 cc but not exceeding 2500 cc	22,561	29,329	18,049	23,463
SUVs				
Cylinder capacity not exceeding 2500 cc	21,057	27,374	9,024	11,732
Cylinder capacity exceeding 2500 cc but not exceeding 3000 cc	24,065	31,284	13,357	17,598
Cylinder capacity exceeding 3000 cc	28,577	37,150	18,049	23,463

	Aged below 5 years		**Aged 5 years and over**	
Motor vehicles for the transport of goods -with compression-ignition internal combustion piston engine (diesel or semi-diesel):	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Single cab				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	21,926	9,501	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	26,311	11,402	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	30,697	13,302	17,541	7,601
Double cabs GVW exceeding 3 tonnes but not exceeding 5 tonnes	30,274	0	24,119	10,452
Double cabs GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes, **with spark ignition internal combustion piston engine**	30,697	13,302	24,119	10,452
Panel Vans				
GVW exceeding 1.0 tonne but not exceeding 1.5 tonnes	15,348	6,651	8,770	3,801
GVW exceeding 1.5 tonnes but not exceeding 3.0 tonnes	17,541	7,601	15,348	6,651
GVW exceeding 3.0 tonnes but not exceeding 5.0 tonnes	21,926	9,501	17,541	7,601
Trucks				
GVW up to 2 tonnes	21,926	9,501	10,963	4,751
GVW exceeding 2.0 tonnes but not exceeding 5.0 tonnes	28,504	12,352	13,156	5,701

GVW exceeding 5.0 tonnes but not exceeding 10.0 tonnes	24,724	18,955	10,817	8,293
GVW exceeding 10.0 tonnes but not exceeding 20.0 tonnes	30,905	23,694	11,744	9,004
GVW exceeding 20 tonnes	51,898	0	19,461	0
GVW exceeding 20 tonnes, **with spark ignition internal combustion piston engine**	37,086	28,432	13,907	10,662

Surtax

On all motor vehicles aged more than five (5) years from year of manufacture	K2,000

Customs and Excise on New Motor vehicles

Duty rates on:

1. Motor cars and other motor vehicles (including station wagons) principally designed for the transport of less than ten persons, including the driver:

Customs Duty:

Percentage of Value for Duty Purposes	30%
Minimum Specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	
Cylinder capacity of 1500 cc and less	20%
Cylinder Capacity of more than 1500 cc	30%

2. Pick-ups and trucks/lorries with gross weight not exceeding 20 tones:

Customs Duty

Percentage of Value for Duty Purposes	15%
Minimum specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	10%

3. Buses/coaches for the transport of more than ten persons

Customs Duty:

Percentage of Value for Duty Purposes	15%
Minimum Specific Customs Duty	K6,000

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	
Seating Capacity of 16 persons and less	25%
Seating Capacity of 16 persons and more	0%

4. **Trucks/lorries with gross weight exceeding 20 tonnes**

Customs Duty:

Percentage of Value for Duty Purposes	15%

Excise Duty:

Percentage of Value for Duty Purposes for Excise Duty Purposes	0%

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

You should assume that todays' date is 15 December 2018.

Background

Chikwanda and Changwe are partners running a VAT registered business engaged in manufacturing. They share partnership profits and losses in the ratio of 3:2 respectively. No National Pension Scheme Authority (NAPSA) contributions are currently payable by either Chikwanda or Changwe. They intend to incorporate their business for commercial reasons on 1 July 2019. The following information is available.

Information relating to the Partnership

The partnership's tax adjusted profit, before capital allowances for the period from 1 January 2019 to 30 June 2019 will be K760,000.

The assets and liabilities held by the partnership as at 30 June 2019 will be as follows:

Assets/Liabilities	Original cost	Income Tax Value at 1 January 2019	Market Value at 30 June 2019
	K	K	K
Land	1,200,000	Not applicable	1,536,000
Factory building	500,000	275,000	650,000
Administration buildings	350,000	280,000	420,000
Toyota Fortuner car	180,000	72,000	65,000
Mitsubishi Delivery Van	130,000	65,000	59,000
Manufacturing equipment	120,000	60,000	18,000
Inventories	68,000	Not applicable	95,000
Receivables	30,000	Not applicable	50,000
Payables	26,000	Not applicable	76,000

Incorporation of the business

(1) A company known as CCN Limited will be incorporated and will commence trading on 1 July 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 500,000 ordinary shares of K1 each and Chikwanda will hold 60% of the shares while Changwe will hold 40% of the shares.

(3) Consideration to be received by the partners will solely be in the form of shares and no cash payment will be made by the company to any of the members.

(4) Chikwanda and Changwe will be entitled to gross annual directors emoluments of K560,000 and K480,000 respectively and will be involved in running the company as executive directors.

(5) On 1 October 2019, Chikwanda will sell 10% of his shareholding to Ngosa, the company's Operations Manager for K15 per share. Ngosa will pay for the shares in cash on that date.

(6) On 31 December 2019, Chikwanda and Changwe will draw dividends of K60,000 and K40,000 respectively.

(7) The company's tax adjusted profit for the period from 1 July 2019 to 31 December 2019 will be K1,372,530. This profit figure is before deducting any withdrawals of profits relating to the two individuals, 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.

Future plans

(1) Chikwanda and Changwe are planning to draw loans of K400,000 each in the near future from the company interest free, to help finance the construction of their personal residential houses.

(2) In order to motivate employees, Chikwanda and Changwe are planning to set up a share option scheme in future for the benefit of their employees. They have heard that there are tax benefits, both for the employer and employees, if a share option scheme is approved for tax purposes.

Required:

(a) Explain any five (5) tax incentives available to businesses engaged in manufacturing. (5 marks)

(b) Compute the final partnership's taxable profits and show the allocation of the profits to each partner. (7 marks)

(c) In relation to the incorporation of CCN Limited:

(i) Calculate the values of the shareholdings of Chikwanda and Changwe in the new company, CCN Limited, immediately after incorporation. (4 marks)

(ii) Advise Chikwanda of the property transfer tax implications of the sale of part of his shareholding in CCN Limited to the Operations Manager. You should include appropriate calculations showing, how the realised value of the shares will be determined and the amount of property transfer tax arising. (6 marks)

(iii) Compute the final taxable business profit and the company income tax payable by CCN Limited for the tax year 2019, together with the withholding tax. (7 marks)

(d) Compute the income tax payable by Chikwanda and Changwe in the tax year 2019. (4 marks)

(e) In relation to Chikwanda's and Changwe's future plans:

(i) Advise them of the tax implications of drawing interest free loans of K400,000 each from the business to finance the construction of personal houses. (3 marks)

(ii) Advise them of the tax benefits for both CCN Limited and the employees of an approved share option scheme. (4 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions from this section.

QUESTION TWO

For the purpose of this question assume that today's date is 31 December 2019.

You are employed as a Tax Manager at Malata Chartered Accountants. You are dealing with the tax affairs of Manila Limited, a Zambian resident company, which is a subsidiary of a foreign based multinational corporation known as Hava Plc.

Manila Limited is engaged in farming, growing various agricultural products and has been in existence for over twenty years. Manila Limited is registered for Income Tax, Pay As You Earn (PAYE), Value Added Tax (VAT) and Withholding Tax (WHT). The functional currency of Manila Limited is the Zambian Kwacha. The company has provided you with the following information relating to transactions that took place during the tax year 2019:

(1) Manila Limited paid out dividends of K120,000 (gross) on 29 March 2019 to all existing shareholders of the company as at that date.

(2) The company received a loan denominated in United States Dollars of $30,000 on 1 October 2019, from its parent company, Hava Plc at a quarterly interest rate of 4%. The loan was used to finance construction of a coffee processing plant. The construction of the plant is expected to be completed in April 2020. Interest is payable at the end of each quarter on 31 March, 30 June, 30 September and 31 December , with the first installment being paid on 31 December 2019.

The following exchanges rates are relevant where applicable:

Date		Kwacha to $1
1	October 2019	9.80
31	December 2019	9.70

(3) The company bought air conditioners for all of its offices on 1 March 2019 at a cost of K300,000 VAT inclusive.

(4) Manila Limited acquired a Combine Harvester on 1 January 2019 from Fasa Enterprises, a non-VAT registered Zambian supplier, under a finance lease for annual rentals of K320,000. The fair value of the CombineHarvester was K800,000 on 1 January 2019. The lease period is for five (5) years and the implicit interest rate in the agreement was 20%. Manila Limited is required to pay lease rentals every 31 December starting on 31 December 2019.

(5) Manila Limited received interest of K50,000 gross from its investment in an overseas company on 1 December 2019. Withholding tax amounting to K5,000 was deducted from the interest income and paid to the taxation authorities in the overseas country. There is a Double Taxation Agreementbetween Zambia and that overseas country. The terms of the agreement provides for the receiving country to charge tax at the rate 15% of the gross income and allow a tax credit in full for the amount of tax suffered in the country of origin of the income.

Whilst performing work on this assignment, you accidentally discovered that Manila Limited maintains two sets of business records; one set for use when making management decisions and the other set for tax purposes. The records which are maintained for tax purposes did not include Manila Limited's second major source of income. Youhave approached the directors of the company to advise them to use records that show all the activities of the company, but they have refused and instead, they have offered you K100,000 cash,to keep this information to yourself and not disclose it to anyone.

Required:

(a) Advise Manila Limited on the tax implications of each of the above transactions for the year ended 31 December 2019. Your answer should be supported by relevant calculations. (14 marks)

(b) Evaluate the ethical and profession issues you face in relation to the undisclosed income by Manila Limited and the directors offer of money to you, recommending any appropriate course(s) of action that should be taken. (6 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed as a Tax Manager at a firm of Chartered Accountants. You are dealing with the tax affairs Gala General Insurance Ltd, a new client of your firm. Gala General Insurance Ltd was incorporated in the Republic of Zambia and commenced operations on 1 January 2019. The company only provides general insurance services and does not provide any life insurance services. You have been provided with the following information:

(1) The summarised results of the company from the general insurance business for the year ended 31 December 2019 was as shown below:

		K'000
Gross premiums from customers		800
Interest received from investments	100	
Premiums refunded		120
Unexpired premiums reserves at 1 January 2019	90	
Unexpired premiums reserves at 31 December 2019		110
Outstanding claims from customers at 1 January 2019		30
Outstanding claims from customers at 31 December 2019		10
Operating expenses (see note1)	400	

Note 1:
Operating expenses are all allowable for tax purposes.

Note 2:
The company did not have any non-current assets qualifying for capital allowances for the charge year 2019.

(2) The company is planning to create a position for Marketing Manager, which currently does not exist and wishes to set a remuneration package for the position. The Human Resources Director has drafted proposals of two remuneration packages. He has requested for an evaluation of the taxation implications for the company of each package and a recommendation as to which package will be the most beneficial for the company from a taxation point of view.

The summarised contents of each of the two packages are given below:

Package one

- Annual basic salary of K200,000
- Housing allowance of 30% of annual basic salary
- Lunch allowance of K900 per month
- Transport allowance of K800 per month
- Medical allowance of K6,000 per annum

- Monthly entertainment allowance of K1,000
- Educational allowance of 18,000 per annum

Package two

- Annual basic salary of K200,000
- He will be accommodated in company house rent free. Market rent for similar houses is K5,000 per month.
- Free meals from the staff canteen costing the company K900 per month
- Personal to holder vehicle, Toyota Hilux Double Cab 2500cc. The vehicle will be bought on 1 January 2019, at a cost of K200,000. Private use will be 30% in line with other personal to holder vehicles.The company will meet the cost of motor car running expenses which are expected to average K800 per month.
- The company will cover his medical expenses in full. These are expected to average K6,000 per annum.
- The company will pay his annual television subscription of K1,000 per month.
- The company will be paying school fees for his children up to K18,000 per annum

Additional information

Regardless of whether package one or package two is chosen, the company will be required to contribute 5% of the relevant emoluments under each package to the National Pensions Scheme Authority (NAPSA) as employer's NAPSA contributions and 0.5% of the relevant emoluments under each package as a skills development levy.

The earnings ceiling for NAPSA contributions purposes for the tax year 2019 is K257,712 per annum.

Required:

(a) Provide a computation of the tax adjusted profit and company income tax payable by Gala General Insurance Ltd for the tax year 2019. (5 marks)

(b) Provide an evaluation, supported by relevant calculations, of the package that will result in higher income tax savings for the company including explanations of the tax implications for the company of each package. (15 marks)

[Total: 20 Marks]

QUESTION FOUR

CAT Ltd is a Zambian resident company. It owns 60% of the ordinary share capital of LION Ltd and 25% of the ordinary share capital of LEOPARD Ltd. Both of these companies are incorporated abroad, and the directors of each company hold their board meetings abroad in the country where each company is incorporated. CAT Ltd sells imported musical instruments that are manufactured abroad by LION Ltd and LEOPARD Ltd. All of CAT Ltd's sales are made in Zambia.

For the year ended 31 December 2019, CAT Ltd produced a tax adjusted business profit from Zambian operations of K15,750,000. CAT Ltd received net dividends of K2,925,000 and K337,500 from LION Ltd and LEOPARD Ltd respectively during the year ended 31 December 2019.

It is the policy of CAT Ltd to offer a 5% minimum shareholding to every executive director of the company. Juliet Nundwe, who is the Chief Finance Officer has a shareholding of 5% in CAT Ltd, 5% shareholding in LION Ltd and 6% shareholding in LEOPARD Ltd. In the year ended 31 December 2019, Juliet earned gross emoluments of K250,000. She paid income tax of K102,562 under the Pay As You Earn system. She also paid NAPSA contributions of K10,735.

In addition to the directors emoluments, Juliet also received net dividends of K26,775 from CAT Ltd, K243,750 from LION Ltd and K81,000 from LEOPARD Ltd.

The results of LION Ltd and LEOPARD Ltd for the year ended 31 December 2019 were as follows:

	LION Ltd		LEOPARD Ltd	
	K	K	K	K
Trading profit		9,000,000		3,750,000
Company income tax		1,687,500		1,312,500
Distributable profits		7,312,500		2,437,500
Dividends paid				
Net	4,875,000		1,350,000	
Withholding tax	1,875,000		900,000	
		6,750,000		2,250,000
Retained profits		562,500		187,500

All of the above figures are in Zambian Kwacha.

In the absence of double taxation conventions between Zambia and the countries where both LION Ltd and LEOPARD Ltd are based, any double taxation relief is given to Zambian residents unilaterally in Zambia by way of crediting the foreign taxes paid against Zambian income tax.

Required:

(a) Discuss whether LION Ltd and LEOPARD Ltd would be treated as permanent establishments of CAT Ltd. (3 marks)

(b) Calculate the amount of income tax payable by CAT Ltd for the tax year 2019. (4 marks)

(c) Calculate the amount of income tax payable by Juliet Nundwe for the tax year 2019. (9 marks)

(d) Explain the international tax implications if LION Ltd and LEOPARD Ltd were to invoice CAT Ltd for the musical instruments at prices that were higher than the market prices and explain what adjustments would be made to the profits of CAT Ltd. (4 marks)

[Total: 20 Marks]

QUESTION FIVE

You are employed in a firm of Chartered Accountants. Your firm has been approached by the following clients who are seeking tax advice:

Casa Copper Mine Plc

Casa Copper Mine Plc was incorporated six years ago and is based in one of the ten provinces in Zambia. The company is engaged in extracting, smelting and selling of copper and other base metals.

The company recently received notification from the Zambia Revenue Authority of their intention to conduct a tax audit in respect of the charge year 2019. The directors of Casa Copper Mine Plc are requesting information about what a tax audit is and are not sure whether it amounts to a tax investigation.

You have additionally been provided with the following information relating to the sales analysis of base metals for the month of December 2019 and the capital structure of the company:

SALES ANALYSIS OF BASE METALS FOR THE MONTH OF DECEMBER 2019:

	K'000
Sales of copper:	
Based on norm value	50,000
Based on gross value	60,000

Sales of other base metals:

Based on norm value	100,000
Based on gross values	120,000

CAPITAL STRUCTURE AS AT 31 DECEMBER 2019:

	K'000
Equity	90,000
Debt:	
20% loan (notes 2 and 3)	200,000
25% loan (notes 2 and 3)	160,000

Notes:

(1) The price of copper was above US$6,000 throughout the month of December 2019.

(2) The 20% loan and the 25% loan were issued on 1 January 2018 and 1 January 2019 respectively and are redeemable in five years from their respective date of issue.

(3) Interest on both loans is payable annually on 31 December each year.

The directors of Casa Copper Mine Plc have heard that under thin capitalisation rules, interest on debt finance may not be allowable, where a mining company has excessive debt finance. They are seeking for advice on the tax treatment of interest on the loans in computing the taxable profit for the tax year 2019.

Hamajembe Hantontola

Hamajembewas recently retrenched from Casa Copper Mine Plc where he was employed as a resident engineer. Having received a hefty retrenchment package, Hamajembe is looking for profitable investments to invest some of his money. He has heard that a reasonable amount of return can be made by investing funds in a Collective Investment Scheme. Hamajembe does not know what a Collective Investment Scheme is and has approached your firm for information and advice.

Required:

(a) In relation to Casa Copper Mine Plc:

(i) Describe the nature and purpose of a tax audit and explain to the directors of Casa Copper Mine Plc how tax audit differs from a tax investigation. (4 marks)

(ii) Calculate the amount of mineral royalty tax arising on the sale of copper and other base metals for the month of December 2019 and state the due date for the payment of the tax. (3 marks)

(iii) Evaluate whether Casa Copper Mine Plc is thinly capitalised and give a detailed explanation of how the interest on the loans will be dealt with when computing the taxable profit for Casa Copper Mine Plc for the charge year 2019.

(6 marks)

(b) Describe the operation of a Collective Investment Scheme for Hamajembe. (4 marks)

(c) Advise Hamajembe of the tax treatment of income from a Collective Investment Scheme both, for the fund manager and for him as an investor. (3 marks)

[Total: 20 Marks]

END OF PAPER

CA 3.4 SUGGESTED SOLUTION

SOLUTION ONE

(a) Tax incentive for business engaged in manufacturing:

(1) Refund of Zambian VAT on export of Zambian products by non – resident businesses under the Commercial Exporters Scheme.
(2) Guaranteed input tax claim for two years prior to commencement of production.
(3) Income from chemical manufacturing of fertilizers is taxed at a reduced rate of 10%.
(4) Capital allowances on industrial buildings used for the purposes of manufacturing shall be entitled to a deduction of 10% in case of low cost housing and 5% for other industrial buildings.
(5) Persons who incur capital expenditure on an industrial building are entitled to claim a deduction called Initial Allowance at 10% of the cost incurred in the charge year in which the industrial building is first brought into use.
(6) Any person who incurs capital expenditure on an industrial building is entitled to an investment allowance at 10% of such an expenditure in the first year that the building is used for manufacturing purposes.
(7) Import Duty on PVC lining and eyelets used in the manufacture of shoes has been reduced to 5%.
(8) Import Duty on semi refined wax and cerechlor used in the manufacture of paint, and on tapioca starch with dextrose powder which is used in the manufacture of biscuits has been reduced to 15%.
(9) Suspension of Import Duty on machinery, equipment and capital goods for Assembling of motor vehicles, trailers, motorcycles and import of bicycles
(10) Duty on various textile machinery has been reduced to 0% and all woven fabrics of polyester imported for further processing, all imported sewing threads and grayfabrics has duty reduced to 0%.
(11) Reduced Import Duty to 5% on the following inputs used in manufacturing:

- Crude Coconut(copra) oil
- Plates Sheets, film, foil and strip of unsaturated polyesters

(b) COMPUTATION OF FINAL TAXABLE PROFITS AND ALLOCATION OF PROFITS FOR THE TAX YEAR 2019

	Total	Chikwanda	Changwe
	K	K	K
Tax adjusted profit	760,000		
Add balancing charge (W)	240,000		
Final taxable profit	1,000,000		

Share of profits (3:2)	1,000,000	600,000	400,000

WORKINGS

COMPUTATION OF CAPITAL ALLOWNACES

	K	K
Factory Building		
ITV b/f	275,000	
Disposal (restricted to original cost)	(500,000)	
Balancing charge	(225,000)	(225,000)
Administration buildings		
ITV b/f	280,000	
Disposal (restricted to original)	(350,000)	
Balancing charge	(70,000)	(70,000)
Toyota Fortuner car		
ITV b/f	72,000	
Disposal	(65,000)	
	7,000	7,000
Mitsubishi Delivery Van		
ITV b/f	65,000	
Disposal	(59,000)	
	6,000	6,000
Manufacturing equipment		
ITV b/f	60,000	
Proceeds	(18,000)	
Total	42,000	42,000
		(240,000)

(c) (i) Value of the shareholdings of the individual shareholders

(1) Chikwanda's shareholding = 60% x K2,817,000 (W)

= K1,690,200

(2) Changwa's shareholding = 40% x K2,817,000 (W)

= K1,126,800

WORKING

COMPUTATION OF TOTAL PURCHASE CONSIDERATION

	K
Land	1,536,000
Factory building	650,000
Administration buildings	420,000
Toyota Fortuner car	65,000
Mitsubishi Delivery Van	59,000
Manufacturing equipment	18,000
Inventories	95,000
Receivables	50,000
	2,893,000
Payables	(76,000)
Purchase consideration	2,817,000

(ii) Chikwanda will have a shareholding of 300,000 shares (60% x 500,000) shares of K1 each in the company, based on the information given that he will be a 60% shareholder in the company.

When Chikwanda sell 10% of his shareholding in the company, the number of shares that he will sell is 30,000 shares (10% x 300,000 shares).

The sales proceed of these shares would be:

K15 per share x 30,000 shares = K450,000

Based on the purchase consideration received by Chikwanda of K1,690,200 (as computed in (c) (i) above) the open market value of the shares sold is:

10% x K1,690,200 = K169,020.

The nominal value of the shares is:

30,000 shares x K1 = K30,000.

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 K450,000. The amount of property transfer tax will be:

K450,000 x 5% = K22,500

(iii) CCN LIMITED

COMPUTATION OF FINAL TAXABLE PROFIT AND COMPANY INCOME TAX PAYABLE FOR THE TAX YEAR 2019

	K
Tax adjusted Profits before capital allowances	1,372,530
Less	
Director's emoluments	
(K560,000 x 6/12) + (K480,000 x 6/12)	(520,000)
Employer's NAPSA Contribution	
(K257,712 x 6/12 x 5%) x 2	(12,886)
Capital allowances (W)	(77,650)
	761,994
Companyincometax(K761,994× 35%)	266,698
Witholdinng Tax Paid	
(K60,000 + 40,000) x 15% =	15,000

CCN LIMITED

COMPUTATION OF CAPITAL ALLOWNACES

	K
Factory Building	
Wear and tear allowance	
(K650,000 x 5%)	32,500
Administration buildings	
Wear and tear allowance	
(K420,000 x 2%)	8,400
Toyota Fortuner car	
Wear and tear allowance	
(K65,000 x 20%)	13,000
Mitsubishi Delivery Van	
Wear and tear allownace	
(K59,000 x 25%)	14,750
Manufacturing equipment	
(K18,000 x 50%)	9,000
	77,650

(d) CHIKWANDA AND CHANGWE

PERSONAL INCOME TAX COMPUTATIONS FOR THE TAX YEAR 2019

	Chikwanda	Changwe
	K	K
Business profits (b)	600,000	400,000
Director's emoluments		
(K560,000/K480,000 x 6/12)	280,000	240,000
	880,000	640,000
Income Tax		
On First K74,400	9,960	9,960
On excess K805,600/K565,600 x 37.5%	302,100	212,100
	312,060	222,060

(e) (i) Tax implications of drawing interest free loans

Chikwanda and Changwe are effective shareholders as they each have a shareholding in excess of 5%.

If Chikwanda and Changwe draw interest free loans of K400,000 each from the company, then CCN Limited will be deemed to have made loans to effective shareholders. Each loan would be deemed to be an emolument from which income tax has been deducted at the highest rate of personal income tax of 37.5%. (1 mark)
CCN Limited will be required to pay income tax at the rate of 37.5% on the grossed up equivalents of the loans. CCN Limited would therefore be required to pay tax of:

(K400,000 x 2) x 37.5/62.5 = K480,000.

(ii) Tax benefits of approved share option schemes:

To the employer (CCN Limited):

(1) The costs incurred in setting up and operating the scheme are tax deductible.

(2) There is no property transfer tax on the shares transferred under the scheme.

(3) The income of the scheme is not chargeable to income tax

To the participating employees:

(1) There is no Income Tax charge when the share options are granted at an exercise price that is less than the market value at the time of grant.

(2) There is no income tax charge when the share options are exercised.

SOLUTION TWO

(a) Tax Implications of Manila Limited's transactions for the year ended 31 December 2019.

(1) Dividends

(i) Dividends of K120,000 will not be allowable for tax purpose when computing taxable profits as they are simply distribution of profit.

(ii) Manila Limited has to deduct WHT from dividends and remit the tax to Zambia Revenue Authority.

(iii) The amount of the withholding tax will be:

15% x K120,000 = K18,000

(2) Loan from Hava Plc

(i) The interest on the loan will not be an allowable deduction for tax purposes as the loan is for capital purposes. The amount of interest to be disallowed when computing taxable profits will be computed as follows;

($30,000 x 4%) x K9.70 = K11,640

(ii) The principal amount of the loan is not subject to tax but the interest will be.Manila Limited will be required to deduct withholding tax from the interest and remit it to the Zambia Revenue Authority. The parent company HavaPlc will only receive the net interest from which the withholding tax has been already deducted.

(iii) Since the loan is in a foreign currency, its translation will give rise to exchange differences of capital nature as the loan is being used to finance the construction of a capital asset.

(iv) An exchange gain will arise on translation of the loan at 31 December 2019. This gain will not be taxable as it will be unrealised. This is because the loan will still be outstanding at the year end.

(v) The amount of the exchange gain will be:

	K
Value of loan at 1 October 2019	
($30,000 x K9.80)	294,000
Loan retranslated at 31 December 2019	
($30,000 x K9.70)	291,000
Exchange gain	3,000

(vi) Manila Limited will not claim any capital allowances on the plant in 2019 charge year as it is not yet complete and in use.

(1 mark for each valid point up to a maximum of 6 marks)

(3) Purchase of air conditioners

(i) The purchase of air conditioners is capital expenditure. Therefore the capital allowances will be claimable. The capital allowances will be calculated on VAT inclusive amount as input VAT is not recoverable on air conditioners.

(ii) The company will claim capital allowances amounting to

25% x K300,000 = K75,000

(4) Leased Combine Harvester

(i) Manila Limited will claim capital allowanceson the fair value of the combined harvester at rate of 100% as it is directly used in farming.

The amount of the capital allowances which will allowable in computing taxable profits will be K800,000.

(ii) Manila Limited will also claim as an allowable deduction in computing taxable profit, the interest component of the lease rental. This will amount to:

20% x K800,000 = K160,000

(5) Foreign interest

This will be taxed according to the provisions of the double taxation agreement.

Therefore, net tax payable in Zambia, after taking into account tax already paid overseas, will amount to K2,500 [(15% x K50,000) – K5,000].

(b) Ethical issues

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 not disclosing the second major source of income is an offence which borders on tax evasion and therefore constitutes a criminal offence.

You should report the offer of K100,000 cash to your supervisor. This offer should not be accepted. Your firm should take careful thought to its own position and seek legal advice on the matter. Your firm will also have a statutory duty to report the offence to the proper authorities immediately, which will override the duty of confidentiality.

(1 mark for each valid point up to a maximum of 6 marks)

SOLUTION THREE

(a) GALA INSURANCE LTD

COMPUTATION OF TAXABLE BUSINESS PROFIT AND COMPANY INCOME TAX

	K'000	K'000
Gross premiums from customers	800	
Interest received from investments	100	
Less: Premiums refunded	(120)	
		780
Unearned premiums reserves at 1 January 2019	90	
Less:		
Unearned premiums reserves at 31 December 2019	(110)	
		(20)
Outstanding claims from customers at 1 January 2019	30	
Less:		
Outstanding claims from customers at 31 December 2018	(10)	
		20
Less:Operating expenses		(400)
Tax adjusted trading profit		380
Income Tax @35%		133

(b) **Package one**

(1) All of the items payable to the employee under this package will be allowable expenses, when computing the taxable business profits of the company and will be assessed as taxable emoluments in the hands of the employee: These will include the following:

- Annual basic salary of K200,000
- Housing allowance of 30% of annual basic salary
- Lunch allowance of K900 per month
- Monthly Entertainment allowance of K1,000
- Transport allowance of K800 per month
- Medical allowance of K6,000 per annum
- Educational allowance of K18,000 per annum

(2) The employers NAPSA contributions of 5% of the total earnings restricted to the earnings threshold will be allowable in computing taxable profits.

(3) The skills development levy of 0.5% of the earnings will be allowable when computing taxable business profits.

(4) The tax savings that will arise will be computed as follows:

	K
Annual salary	200,000
Housing allowance (30% x K200,000)	60,000
Lunch allowance (K900 x 12)	10,800
Entertainment allowance (K1,000 x 12)	12,000
Medical allowance	6,000
Transport allowance (K800 x 12)	9,600
Educational allowance	18,000
Taxable emoluments	316,400
Add other allowable expenses:	
Employer's NAPSA contribution	
(K257,712 x 5%)	12,886
Skills development levy	
(K316,400 x 0.5%)	1,582
Total allowable deductions	330,868
Total Tax saving K330,868 x 35%	115,804

Package two

(1) The following items payable to the employee under this package will all be allowable expenses, when computing the taxable business profits and will be assessed as taxable emoluments in the hands of the employee:

- Annual basic salary of K200,000
- Payment of television subscriptions
- Payment of Medical expenses
- Payment of school fees

(2) The employers NAPSA contributions of 5% of the earnings restricted to the earnings threshold will be allowable in computing taxable profits.
(3) The skills development levy of 0.5% of the earnings will be allowable when computing taxable business profits.
(4) Motor car running expenses will be allowable in computing taxable profits
(5) Capital allowances will be claimable on the personal to holder motor car

(6) A personal to holder motor car benefit will arise on the company. The taxable amount for car with a cylinder capacity of 2,500cc is K30,000.
(7) An accommodation benefit will arise on the company for providing free residential accommodation to the employee. The assessable benefit will be computed as 30% of the employee's gross emoluments.
(8) The cost of providing free meals to the employee will not be allowable when computing taxable profits.

(½ mark for each point up to a maximum of4 marks)

(9) The tax savings that will arise will be computed as follows:

		K
Annual salary		200,000
Payment of television subscriptions		
(K1,000 x 12)		12,000
Payment of school fees		18,000
Taxable emoluments		230,000
Other allowable expenses		
Medical expenses	6,000	
Motor car running expenses (K800 x 12)	9,600	
Capital allowances on motor car		
(K200,000 x 20%)	40,000	
Employer's NAPSA contribution		
(K230,000 x 5%)	11,500	
Skills development levy		
(K230,000 x 0.5%)	1,150	
		68,250
		298,250
Increase in Taxable income		
Accommodation benefit		
(K230,000 x 30%)	69,000	
Personal to holder motor car benefit	30,000	
Staff canteen expenses (K900 x 12)	10,800	
		109,800
Net reduction in taxable profit		188,450
Company income tax saved		
K188,450 x 35%		65,958

Recommendation

The company should offer the new manager package one as this has a higher tax savings by K49,846) K115,804– K65,958.

SOLUTION FOUR

(a)
A permanent Establishment is defined in the OECD Model Convention as a fixed place of business through which the business of an enterprise is wholly or partly carried on. It includes especially 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.

Subsidiary companies are not permanent establishments. However, foreign branches and foreign divisions are permanent establishments. LION Ltd is a subsidiary company while LEOPARD Ltd is not a subsidiary company and it is not also a branch or division. Since CAT Ltd has not established either of the companies as branches or divisions, the two companies are not permanent establishments of CAT Ltd.

(b) CAT LTD
COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K
Business profits	15,750,000
Foreign dividends	
LION Ltd K2,925,000 x K6,750,000/K4,875,000	4,050,000
LEOPARD Ltd K337,500 x K2,250,000/ K1,350,000	562,500
Total taxable profit	20,362,500
Company income tax	
35% x K20,362,500	7,126,875
Double Taxation Relief	
Dividend from LION Ltd (W1)	(1,125,000)
Dividend from LEOPARD Ltd (W2)	(196,875)
Company income tax payable	5,805,000

Workings

(1) Double taxation relief on dividend from LION Ltd is the lower of:

(i) Zambian company income tax on the dividend

= 35% x K4,050,000

= K1,417,500

(ii) Foreign withholding tax paid

= K1875,000/K6,750,000 x K4,050,000

= K1,125,000

(2) Double Taxation Relief on dividend from LEOPARD Ltd is the lower of:

(i) Zambian company income tax on the foreign dividend

= 35% x K562,500

= K196,875

(ii) Foreign withholding tax paid

= K900,000/K2,250,000 x K562,500

= K225,000

(c) JULIET NUNDWE

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2019

	K	K
Annual salary		250,000
Foreign dividends		
LION Ltd (5% x K6,750,000)	337,500	
LEOPARD Ltd (6% x K2,250,000)	135,000	
		472,500
		722,500

Income tax		
On the first K74,400		9,960
On the balance		
37.5% x (K722,500 – K74,400)		243,038
Double taxation relief		252,998
Dividend from LION Ltd (W3)	93,750	
Dividend from LEOPARD Ltd (W4)	46,144	
		(139,894)
Income tax payable		113,104
Less tax paid under the Pay As You Earn system		(102,562)
Income tax payable		10,542

Workings

(1) Total assessable income

	K
Income chargeable to income tax	722,500
Gross Zambian dividend (K26,775 x 100/85)	31,500
Total assessable income	754,000

(2) Total amount of Zambian tax charge

	K
Income Tax	252,998
Withholding tax on Zambian dividend (15% x K31,500)	4,725
Total Zambian tax charge	257,723

(3) Double taxation relief on dividend from LION Ltd is the lower of:

(i) Zambian income tax attributed to the foreign dividend

= K337,500/ K754,000 x K257,723

= K115,360

(ii) Foreign withholding tax paid

= K1,875,000/K6,750,000 x K337,500

= K93,750

(4) Double taxation relief on dividend from LEOPARD Ltd is the lower of:

(i) Zambian income tax attributed to the foreign dividend
= K135,000/ K754,000 x K257,723

= K46,144

(ii) Foreign withholding tax paid
= K900,000/ K2,250,000 x K135,000

= K54,000

(d) Transfer Pricing Issues

(1) Invoicing for the imported musical instruments at more than the market price will reduce Zambian trading profits and hence Zambian company income tax.

(2) A true market price will therefore have to be substituted for the actual transfer price used.

(3) The market price will be an 'arm's length' one that would be charged if the parties to the transaction were independent of each other.

(4) CAT Ltd will be required to make the adjustment in its self-assessment income tax return. The adjustment would involve adding back to the trading profit the difference between the market price and the actual transfer price used.

SOLUTION FIVE

(a) Casa Copper Mines Plc

(i) A tax audit is the examination of a tax return, a declaration of liability or a repayment claim, a statement of liability to stamp duty, or the compliance of a business with tax or duty legislation.

Any chargeable person may be subject to a tax audit and may for example be selected randomly for the audit or based on a particular economic sector. The audit will examine the books and records of the tax payer to establish if there has been tax default and if so reach a settlement with the tax payer to ensure future tax compliance.

A tax audit is not the same as a tax investigation, which is carried out purely because some tax evasion or tax fraud has been reported in connection with a tax payer.

A tax investigation will also be carried out where a taxpayer carrying on business consistently reports losses, as on financial grounds, a business that is in a position of perpetual loss would not be a going a concern.

(ii) COMPUATION OF MINERAL ROYALTY FOR DECEMBER 2019

Mineral royalty	**K'000**
Copper K50,000,000 x 7.5%	3,750
Others K100,000,000 x 5%	5,000
Total	**8,750**

The mineral royalty tax is due on or before 14th January 2020

(iii) COMPUTATION THE DEBT: EQUITY RATIO

A mining company is said to be thinly capitalised when it is financed by excessive debt finance, such that the debt: equity ratio exceeds the ratio of 3:1.If a mining company is thinly capitalised, then interest on the amount of debt in excess of the debt: equity ratio 3:1 is not deductible for tax purposes. This means interest is only allowed in full, if the mining company's debt: equity ratio does not exceed 3:1.

Casa Copper Mine Plc is thinly capitalised because its debt: equity ratio 4:1(W1) which is above the ratio 3:1

This means that in computing the taxable profits for the tax year 2019, out of the total interest expense incurred by Casa Copper Mine Plc during the year amounting to K80,000 (W2), only K60,000 (W2) will be allowable. The excessive interest amounting to K20,000 (W2) will not be allowable.

WORKINGS

(1) COMPUTATION OF THE DEBT: EQUITY RATIO OF CASA LTD

Total debt = K200,000 +160,000 = K360,000

Equity = K90,000

The debt: equity ratio is therefore:

= K360,000: K90,000

= 4:1

(2) CALCULATION OF EXCESSIVE INTEREST

	K'000
Interest expense for year on the:	
20% Loan (20% x K200,000)	40,000
25% loan (25% x K160,000)	40,000
	80,000
Less allowable interest (¾ x 80,000)	60,000
Disallowed excessive interest	20,000

(b) A Collective Investment Scheme is an arrangement that enables a number of investors to pool their assets and have these professionally managed by an independent professional investment manager (fund manager) or a management company.

It is defined by the Securities Act of 2016 as "a scheme in whatever form, including an open-ended investment company, where members of the public are invited or permitted to invest money or other assets in a portfolio and in terms of which:

(1) Two or more investors contribute money or other assets to, and hold a participatory interest in, a portfolio of the scheme through shares, units or other form of participatory interest; and

(2) The investors share the risk and the benefit of investment in proportion to their participatory interest in the portfolio of the scheme or as determined in the trust deed;"

Investments may typically include deposits, bonds and equities, but depending on the type of scheme may go wider.

The total value of the pool of invested money is split into equal portions called participatory interests or units. Hamajembe will need to buy a portion of the participatory interests or units for him to invest in the scheme.

The price of a unit is based on the value of the investments the scheme has invested in. Hamajembe can be making regular payments e.g. monthly, quarterly towards the acquisition of these units.

Once an investment is made, it is expected that at the end of the year, Hamajembe will register growth on his investments through capital appreciation and income in the form of dividends and interest income.

(c) TAX TREATMENT OF COLLECTIVE INVESTMENT SCHEMES

Tax Treatment for the Fund manager

(1) For taxation purposes income of a Collective Investment Scheme is exempt from income tax to the extent to which the income is distributed to participants in the collective investment scheme.

This means that income generated from such a scheme by the Fund Manager is exempt from income tax on condition that the income is paid out to the investors.

(2) Any income not paid out to the investors will be subject to normal company income tax at the rate of 35%.

Tax Treatment for investors

The participating investors like Hamajembe will be liable to pay tax on the income received on distribution. Since the funds contributed into the fund are invested in various types of investments such as deposits, bonds, equities and so on, they generate income, for participating investors, which is generally subjected to withholding tax. The withholding tax is deducted at source at the applicable rates.

END

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.5: ADVANCED MANAGEMENT ACCOUNTING

TUESDAY 10 DECEMBER 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.

<u>QUESTION ONE</u>

Fast Foods (FF) Ltd, is a foodservice retailing group operating in 30 African countries. The company has the following strengths, instant international brand recognition, experienced and highly trained management, site development expertise and advanced technological systems. Its mission statement is 'Being a good employer in each community in which we operate so as to create value for shareholders through delighting customers with good service and value'.

John Dube, was recently appointed as chief executive officer (CEO) to address a decline in FF's share price in the last four (4) years. He has vast experience in turning poor performing organizations to success. John, has stated that in the uncertain environment in which FF operates, the business must focus on optimising its value generation. He has developed an improvement programme for FF.

The CEO would like an evaluation of the performance reporting system used at the strategic board level by Fast Foods. The current performance report used for the annual review at board meetings is given as an example below.

	Year to 31 December				
	South	West	East	Total	Total
	2018	2018	2018	2018	2017
	Km	Km	Km	Km	Km
Revenue	1,033	2,842	1,292	5,167	4,906
Cost of sales	696	1,947	841	3,484	3,308
Gross profit	337	895	451	1,683	1,598
Other operating costs					
Selling and distribution	125	291	141	557	532
Administration costs	104	239	116	459	449
Total	229	530	257	1,016	981
Operating profit	108	365	194	667	617
Finance cost				123	123
Group profit before tax				544	494
Tax				109	99
Group profit after tax				435	395

Other information for the year 2018:

(i) Return on capital employed (ROCE) was 7.57%.
(ii) The growth in revenue and operating profit was 5.32% and 8.1%.
(iii) Comparative data:

	Fast Foods Ltd	Industry average
Profit as a % of revenue:		
Gross profit	32.6%	28.4%
Operating profit	12.9%	10.3%

Group profit before tax	10.5%	-
Group profit after tax	8.4%	-

He also believes that performance could be improved by ensuring that FF's mission statement flows down into the performance management of the business. FF currently has the following CSFs and associated KPIs:

CSF	**Associated KPI**
• Serve customers quickly	• Minutes between customer placing an order and receiving order
• Match or undercut major competitors on price	• Average price per meal compared to major competitors
• Good staff retention	• Staff turnover

FF operates a divisional structure based on the three geographical regions East, South, and West. John is concerned that it is the underperforming South division that is strongly contributing to FF's declining share price. He has decided that in order to improve performance, the South division should carry out a benchmarking exercise against the West division. The West has been the best performing of the three divisions for the past two years. The accounting department has gathered the data in the table below for the most recent accounting period for use in this benchmarking exercise.

	South Division	West Division
Average number of customers per day	600	588
Average number of minutes between customers placing an order and receiving order	22	10
Average price per meal compared to main competitors	14.4%	3.6%
Staff turnover per annum	36%	35%
Average number of customers per day rating service as 'good' or 'better than good'	270	441
Average number of customers per day rating visit as providing 'value for money'	210	376

Required:

(a) Evaluate the performance reporting system as requested. (11 marks)

(b) Evaluate the relationship between FF's mission, CSFs and KPIs and recommend, with reasons, any changes that could be made to its CSFs and KPIs. (15 marks)

(c) Evaluate South division's benchmarked position against the West division using the KPIs given in the scenario and the approach to benchmarking used. (14 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

QUESTION TWO

Kawambwa Holding Limited (KHL) is a quasi-government company established in Luapula through a Government Economic initiative. The Government of Zambia agreed to finance 50% of the required K50 million to established the holding company, in Kawambwa, a rural township with a population of about 16,500 people, the other 50% financing came from cooperating partners of the Government. KHL was established in 1974 and was the only company providing formal employment to the people of Kawambwa. KHL's main business activity is to grow and manage coffee plantations for the purpose of processing the coffee beans and selling the coffee. Over the years, KHL has established over 100,000 hectares of coffee plantations and produces over 2,500 tonnes of coffee beans per year, mainly for export. Although KHL has grown in size with a workforce of 4,500 people, with 85% of the workforce from within Kawambwa, the company has been operating at slightly above breakeven. KHL is a political hotbed as it is meant to provide employment to the local community.

Management is considering diversifying its business operations to include cashew nuts in its product portfolio, following a recent slump in coffee beans prices on the international market. This has resulted in KHL reporting a loss in the year ended 31 December 2018. It is now 1 April 2019, and the KHL board will be sitting on 15 April 2019 to review the performance of the company in the first quarter of 2019. Management also intends to present a paper to the board on the diversification into the cashew nuts. A similar project is run by a private farm in Mongu with a positive net present value of not more than K2.5 million.

Cashew Project

During the first quarter of 2019, management engaged a consultant to carry out a feasibility study of the cashew nut project at a total cost of K500,000. The cashew project is expected to create a total of 1,500 direct jobs and 2,000 indirect jobs. The following information was gathered:

1. A cashew tree takes about 4 years to grow and start producing fruits, which have a nut in it. When ready the fruits fall off the tree and are picked for processing. Therefore, if planted, KHL could start selling the cashew nuts in year 5. A mature cashew tree can produce fruits twice a year with a yield of about 5kg per tree. A well planted cashew field could have about 100 cashew trees per hectar (Ha).

2. The current price of unprocessed cashew nuts is K70 per kg, and this is projected to remain the same for the purpose of project evaluation.

3. KHL intends to plant 100 hectares in the first year (Year to 31 December 2019). The planted area will be increased by 500 hectares in the year 2020 and a further 500 in 2021.

4. The direct cost of planting and managing a cashew plantation is K35,850 per hectar per year. The working capital requirement is estimated at 20% of the direct cost and is injected at the start of the year.

5. The initial project investment is K8 million and KHL will pay tax at the rate of 35% and the investment will be available for capital allowances at 100%. Taxes are paid one year in arrears and allowances including tax refunds are offset against future taxable profits.

6. KHL uses a cost of capital of 9% to evaluate projects over a 10 year horizon and a certainty equivalent level of 85% to cover risk.

Required:

(a) Assess the financial viability of the cashew project using the net present value method. (14 marks)

(b) Discuss six (6) qualitative factors that should be considered in deciding whether to invest in the cashew project. (6 marks)

[Total: 20 Marks]

QUESTION THREE

Dorly's is a Chinoyi family run business which makes hand woven toys for both local and international market. It has been successful locally not until the expansion into the foreign market. Has emplyed 1,000 workers with a single quality control inspector for every 50 workers. The inspectors sample completed batches and remove defective toys before they are despatched.

Recently, Dorly's was reluctantly forced to subcontract a batch of work to another firm so that it could meet new delivery deadlines. Fears by Dorly's chief executive officer that this subcontracted work might be of an inferior standard proved to be unfounded. In fact, no defects whatsoever were discovered in the subcontracted batch. At the same time, Dorly's main customer is unhappy with some of the batches it has received and is insisting that in future quality failures due to defective toys produced by Dorly's will incur strict penalty charges. The chief executive officer is worried that unless Dorly's improves its quality standards, it might in future lose contracts with key customers.

At the next staff liaison committee, the chief executive officer raises the issue of quality processes and a frank discussion follows. Apparently the workforce believes that 'mistakes happen' and 'we are all human after all'. Scrap and reworking costs are thought to be 'inevitable in our business'. It is also a generally held view that:

- senior managers are 'out of touch' with the problems of maintaining quality standards whilst meeting production targets;
- the value of middle managers is not apparent;
- Quality control inspectors are not liked but are respected because they are hard working and exercise their individual professional judgement diligently when deciding which toys to reject as unsuitable for despatch.

The chief executive officerengaged an independent renowed quality specialist onDorly's quality problems. The specialist negotiated access for the chief executive officer to visit similar industries so that lessons might be learned.

The managing director is very impressed by:

- teamwork within the workforce;

- an absence of middle managers and quality control inspectors;
- the way in which individual workers demand better quality and get senior manager support to achieve it.

At the recent management meeting, the chief executive officer presented his analysis of the problems of quality within Dorly's. He makes it clear that he is looking beyond temporary 'quick fixes' to overcome the challenges Dorly's faces. After much discussion he formulates a plan for bringing about change through a programme he calls 'putting quality first'. The programme aims to drive up quality standards through training, improved teamwork and a review of roles within Dorly's, particularly quality control inspectors and middle managers. If successful, he believes the programme will bring lasting improvements and longer term, increased customer satisfaction and reduced costs. Senior managers support the programme but have warned that it needs to be both 'sold' to the workforce and carefully implemented.

Required:

(a) Analyse the problems of quality and how they impact on Dorly's performance.

(10 marks)

(b) Discuss the ways in which the problems of quality are being addressed by Dorly's.

(10 marks)

[Total: 20 Marks]

<u>QUESTION FOUR</u>

(a) A recent survey of some Zambian companies revealed that departmental managers did not accept the budgetary targets and instead chose to beat the system, or they felt under pressure to meet the targets at any cost. It is the work culture that says" Do what management asks you to do or you may not have a career with the company."

This is all about living up for the chief executive officer's demand and is sometimes driven by greed and desire for instant results thereby encouraging short termism.
One school of thought has argued that the reduction in employment in the Zambian manufacturing industries can be partly attributed to management's short term view. It appears that short term tactical stances are selected and implemented at the expense of long term strategies.

Required:

Explain how tactical approaches to a firm's situation may be influenced by the medium term strategy and how managers can be encouraged to give consideration to the long term. (8 marks)

(b) After the privatisation of Zambia's copper mines, the new investors (mining companies) have made little effort in the area of Corporate Social Responsibility. The mining companies made it clear that their "core business" is mining and not the provision of social amenities, such as local infrastructure or recreational facilities.

Mining communities on the Copperbelt are experiencing a lot of problems with getting access to health care facilities, as well as other services. There are also problems with the basic infrastructure such as roads, housing, water and sanitation, but the mining companies do not feel it is their responsibility to provide this infrastructure for the local communities.

Equally, as a result of a lack of employment and the huge decline in number of recreational facilities, social problems like alcohol abuse and prostitution also appear to be widespread.
Summarised from: Fraser, A. & Lungu, J. 'For whom the windfalls? Winners & losers in the privatisation of Zambia's copper mines'
The Zambia Environmental Management Agency (ZEMA) recently directed that plastic and flat carrier bags below 30 microns in thickness should not be used as carrier bags. Furthermore, customers now have to pay for plastic carrier bags. Checkers Retailers (CR) Ltd is a super retailer in Zambia and has implemented this directive. It owns a number of retailing shops located in popular shopping malls within Zambia and is committed to reducing the environmental impact of it operations through appropriate ongoing material management. E.g. its plastic bags have 3R's printed on them, i.e. **Reduce** (if all that you have bought can be accommodated in three plastic bags then do not buy five), **reuse** (bring previously used plastic bags or other carrier bags with you to the shops) and **recycle** (put used plastic bags into recyclable containers). In other words there is conscious effort throughout CR Ltd in the following areas: (1) Reduction of waste at source, (2) reuse of materials wherever possible and (3) purchasing of products with recycled content.

Required:

(i) Explain Corporate Social Responsibility (CSR) and sustainability development in the context of modern performance management. (4 marks)

(ii) Explain how corporate social responsibility can help in the sustainability development of CR Ltd. (8 marks)

[Total: 20 Marks]

QUESTION FIVE

The Busi Pungwe Group (BP Group) produces medical products which it markets and distributes to pharmaceutical stores, independent specialist pharmacies super markets and other retail outlets. The BP group is divisionalised into four divisions namely, A,B,C and D. It is the policy of the BP group to allow divisions to autonomously set transfer prices and purchase from whatever sources they choose. Division A is based in Zambia and produces medical products for sale in local and overseas markets. Division B is based in the UK and is free to buy products from UK suppliers and /or from the BP group.

Required:

(a) Explain situations in which this Division A will still be willing to transfer product Panado (P) to Division C at a discount of 20% to the current market price. Assuming that Division A has an external market for its product (P) which fully uses its production capacity. (2 marks)

(b) Division A produces another product called Anadin (A) which it transfers to Division B. Division B uses three units of product A to produce one unit of product Bruffen (B), which is sold externally. The directors of the group consider that two market states, excellent and good, could arise as detailed below.

Market state	Product A		Product B	
	Market price K/unit	External Demand ('000s units)	Market price K/unit	External Demand ('000s units)
Excellent I	54	Unlimited	220	90
Good (G)	48	120	200	60

Other relevant information is as follows:

	Division A	Division B
Standard variable cost per unit	K36	K28 (excluding 3 units)
Fixed costs per annum (Kwacha)	860,000	1,500,000
Budgeted annual capacity (units)	430,000	90,000
Maximum annual capacity (units)	430,000	140,000

Required:

(i) Calculate the transfer prices that will be applicable under both markets states of excellent and good, if the BP Group decides to set transfer prices on the basis of ''standard variable cost plus opportunity cost". (2 marks)

Division B receives a special order for 30,000 units of product B at a price of K140 each. The order will not affect other sales. Consider the following four situations

Situation Number	Market State	Transfer Price Basis
1	Excellent	Standard variable cost per unit
2	Excellent	Standard variable cost plus opportunity per unit
3	Good	Fully absorbed standard cost per unit
4	Good	Standard variable cost per unit

Required:

(ii) Compute transfer prices and then advise in which situation the manager of Division B and the BP Group both would want the same decision to be made concerning the acceptance of the order. (4 marks)

(c) Division C, a subsidiary of the BP Group has the following budgeted results:

	K'000
Capital Employed	3,200
Operating profit	800

The BP Group uses the Return On Capital Employed (ROCE) and the Residual Income (RI) to evaluate the performance of divisional managers, valuing non-current assets at net book value at the year end, and net current assets at average value for the year. Depreciation is calculated on the straight line basis. The BP Group expects all investments to earn a minimum 18% discounted (DCF) cashflow return over four years.

In addition to the budgeted results, Division C is considering the following three independent investments:

Investment 1

Invest K600,000 in plant that will reduce annual revenue costs by K200,000. The plant would be purchased at the beginning of the next year, with a useful life of four years and no scrap value.

Investment 2

Invest K16,000 at the beginning of the year in a computerised inventory control system. The investment will be regarded as revenue expense and one extra member of staff would be employed at a cost of K18,000 per annum. The system would reduce inventory levels by an average of K90,000 over the year. The extra cash generated would be remitted to the BP Group head office.

Investment 3

Increase the period of credit allowed to customers. Receivables would increase by an average of K70,000 over the year; the extra cash required being provided by the BP Group head office. The resulting increased sales are expected to generate an annual contribution of K50,000.

Ignore tax and inflation

Required:

(i) Compute the existing ROCE and RI for Division C without the proposed investments. (2 marks)

(ii) Compute Division C's ROCE and RI for the next year for each of the three independent investments. (6 marks)

(iii) Advise which investments are likely to encourage goal congruence between the BP Group and Division C for the next year when considering these three investments separately. What is your conclusion regarding RI and DCF decision rules.

(Hint: make use of the18% DCF return to appraise the three investments). (4 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2) e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

CA3.5 SOLUTIONS

SOLUTION ONE

(a) Performance report for annual board review
The current report has a number of strengths and weaknesses. These will be discussed according to whether the report:
– measures performance towards the overall aims of the company; and
– is well-presented.
The current mission of the group can be broken down into a number of parts:
– The overall objective of the company is to create value to the shareholders.
This is to be done by:
– delighting customers through good service and value.

Beginning with the overall objective of Fast Foods, the report does not directly measure shareholder value and so does not report its primary goals of the organisation. This could be done directly by economic value added (EVA™) or total return to shareholders. Also, the report is wholly historical and contains no information about the future prospects necessary to judge creation of value. The current report uses period profits and return on capital employed as its main measures of performance. These can suffer from being short term unlike economic value added.
Overall, the report does not give information about the performance of the strategies which are in place to deliver the overall objective. These will require non-financial measures and so do not appear in the report which is dominated by standard accounting information.
There is no measure in the report of how the company works with customers. The company does collect data on interaction with customers at a divisional level.
An indirect measure of the customer value-for-money is being offered through the gross profit which, when compared to the industry average, gives a partial measure of value but without data on the price/quality mix compared to competitors, it is difficult to be conclusive about this.
Revenue growth is given but should be compared to industry growth in order to give an impression of the attractiveness of our offering to the customer.
There is very little about the assets and liabilities of the company or its liquidity. This may be acceptable if the efficiency of capital use and the danger of insolvency are negligible but this appears unlikely as shareholder value is a key measure and the ROCE is narrow.
In terms of presentation, the data are clear and in a form which would be easily recognisable to those used to reading accounts.
However, it is common to provide a narrative commentary with such a report in order to highlight the key features in the report such as major deviations from target or performance well outside industry norms.

(b) Mission and CSFs
An organisation's mission outlines the broad direction that the organisation will follow and summarises the reasons and values that underlie the organisation. The mission, once set, should form the basis of the organisation's strategic objectives.
Critical success factors (CSFs) should then be identified. These are the vital areas 'where things must go right' for the organisation in order for them to achieve their strategic objectives. The achievement of CSFs should allow the organisation to cope better than rivals with any changes

in the competitive environment and to maximise performance. Key performance indicators (KPIs) are the measures that indicate whether or not the CSFs are being achieved. What gets measured, gets done.
FF's mission is 'Being a good employer in each community in which we operate so as to create value for shareholders through delighting customers with good service and value'. This mission partly flows down to its current CSFs:

Serving customers quickly

Serving customers quickly is one aspect of delighting customers with good service. Quick service should also assist in keeping costs down, thereby also helping to deliver value to customers.

However, good customer service is not solely about serving customers quickly. Customers will also rate how 'good' the service is based on other aspects of performance. For example, CSFs relating to the accuracy of what is served, customer satisfaction with the person serving them and the use of technology to assist and improve the customer experience may be relevant for FF.

Match or undercut major competitors on price

Matching or undercutting major competitors on price is one aspect of delighting customers through value.

However, value does not necessarily mean to be a low/ the lowest cost provider. Instead, it means delighting customers by providing a good customer experience for the price charged.

Therefore, even though value will mean different things for different organisations, for FF it may also include CSFs such as getting the taste of the food and drink correct or creating a pleasing restaurant environment.

Good staff retention

Good staff retention would probably indicate a good level of staff satisfaction since unsatisfied staff are more likely to leave FF.

However, staff satisfaction is only one aspect of being a good employer in each community.

Other aspects such as the provision of a competitive salary/attractive benefits package may also be identified as important CSFs.

KPIs
Key performance indicators (KPIs) are the measures that indicate whether or not the CSFs are being achieved. Taking each CSF and associated KPI in turn:
• Minutes between customer placing an order and receiving order partly captures the CSF of serving customers quickly. However, it ignores other important factors such as queuing time. The KPI should include this queuing time.

• Average price per meal compared to major competitors does capture the CSF of matching or undercutting major competitors on price. However, the comparison may be inappropriate due to differences between FF and its major competitors or the choice of competitors used. If this measure is to be used then FF should ensure that they are comparing like with like and that a suitable group of major competitors is chosen for comparison. If this is not possible, then it may be more appropriate to change the KPI.

• Staff turnover is a good measure of staff retention and would be deemed an appropriate KPI in this case.

Finally, it is worth noting that FF may need to review its mission statement to ensure that it still reflects the organisation's environment. If the market or key stakeholders have changed since the mission was written, then it may no longer be appropriate

(c) Benchmarking of the South division against the West division

The South division has been benchmarked against the West division using the five KPIs below:

• The average number of minutes between customers placing an order and receiving their order is more than double for the South division compared to the West division (22 minutes compared to 10 minutes). A22 minutes wait may be considered unacceptable by customers in a fast food outlet and may be contributing to customer dissatisfaction in the South and ultimately a decline in performance and share price.

• South and West division customers may perceive value to be lower than competitors since the average price per meal in both divisions is higher than their main competitors. Charging a higher than average price may lead to short-term performance gains but long-term profitability may be impacted if the perception of 'value' is poor. The South division's average is four times higher than the West division's average (14.4% higher in the South and 3.6% higher in the West) and so even though a poor perception of value in both divisions could be contributing to a fall in share price, the impact of South's high prices on share price may be greater than the West's.

• Staff turnover per annum is similar for the South Division and the West Division (36% compared to 35% respectively). This level of staff turnover does appear high (although some comparison to industry average or competitor data would be useful) and could be contributing to a decline in FF's performance and hence share price.

• The average number of customers per day rating the service as 'good' or 'better than good' is 45% in the South division ((270 ÷ 600) × 100) compared to 75% in the West division ((441 ÷ 588) × 100). The relative poor performance of the South division could be a contributor to the decline in FF's share price.

• Finally, the average number of customers per day rating the visit as providing 'value for money' is slightly lower for the South division at 35% ((210 ÷ 600) × 100) compared to 64% ((376 ÷ 588) × 100) for the West division. South is underperforming relative to West and this could be contributing to a decline in FF's performance and hence share price.

Overall, the West Division is performing better than the South in all five areas above. Therefore, it may be true that it is the underperforming South division that is strongly contributing to FF's declining share price.

Evaluation of the approach to benchmarking

FF has decided to carry out an **internal benchmarking** exercise since it is using the West division as the benchmark against the South division. This approach has the following **advantages** for FF:

(i) It is a straightforward approach since the performance data will be readily accessible.
(ii) Any changes that are thought to be required as a result of the benchmarking exercise should be quite straightforward to implement since the processes and activities that are thought to be working well are already being carried out within the organisation. Therefore no major re-engineering of processes and activities should be required.
(iii) The factors above should mean that the cost of the benchmarking exercise can be kept down (cost control is important for FF so this is a definite advantage) and the exercise should be able to be completed on a timely basis (also important for FF due to the fast moving and uncertain business environment in which it operates).

However, it is worth noting that the benchmarking exercise is **limited in its scope** (and therefore usefulness) and has a number of other **disadvantages**:

(i) Only five KPIs have been calculated and compared. It would be useful to have access to additional financial and non-financial performance data for each of the divisions so that a fuller range of KPIs could be calculated. In addition, the veracity of the data used to calculate the measures should be checked.
(ii) Although the relative performance of the divisions can be compared, it would be useful to have access to information on divisional targets, competitor performance data and industry averages for performance. In addition, differences between the South and the West divisions may make direct comparison less meaningful.
(iii) Innovative solutions may not be developed as a result of this type of benchmarking since the solutions will be based on actions already carried out within the organisation. It is likely that FF’s performance problems are due to negative factors that exist across the whole company and therefore, solely implementing actions based on the West’s working practices may not result in the significant performance gains that may be required.
(iv) Although the cost and time involved with this type of benchmarking may be lower than, say, competitor benchmarking, the exercise will still have an associated cost (good cost control is an in important factor for FF) and will take time (this will divert resources from other areas of the business).
(v) The fast moving nature of this industry means that what is good today may not be good tomorrow. It may be better from FF to focus on future actions and performance gains rather than implementing changes based on current business practices.
(vi) Finally, the South division’s employees may feel criticised as a result of the benchmarking exercise resulting in a possible fall in motivation. This will particularly be the case if they consider that many of the factors are outside of their control.

SOLUTION TWO

Part aK'000

Cashew Project												
NPV Model												
Area Planted		100Ha	600Ha	1100Ha	1100Ha	1100Ha	1100Ha	1100Ha	1100Ha	1100Ha	1100Ha	
Harvested area		0	0	0	0	100HA	600 Ha	1100Ha	1100Ha	1100Ha		
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Revenue (w)		-	-	-	-	7,000	42,000	77,000	77,000	77,000	77,000	
Direct costs		3,585	21,510	39,435	39,435	39,435	39,435	39,435	39,435	39,435	39,435	
Contribution		(3,585)	(21,510	(39,435)	(39,435)	(32,435)	2,565	37,565	37,565	37,565	37,565	
Capital allowances		(8,000)										
Taxable profit		(11,585)	(21,510)	(39,435)	(39,435)	(32,435)	2,565	37,565	37,565	37,565	37,565	
Tax@35%			4,055	7,529	13,802	13,802	11,352	(898)	(13,148)	(13,148)	(13,148)	(13,148)
Contribution after tax		(3,585)	(17,455)	(31,907)	(25,633)	(18,633)	13,917	36,667	24,417	24,417	24,417	(13,148)
Working capital needs	717	4,302	7,887	7,887	7,887	7,887	7,887	7,887	7,887	7,887		
Working capital injections	(717)	(3,585)	(3,585)								7,887	
Investment	(8,000)											
Net cash flow	(8,717)	(7,170)	(21,040)	(31,907)	(25,633)	(18,633)	13,917	36,667	24,417	24,417	32,304	(13,148)

Certainty level - 85%	(8,717)	(6,095)	(17,884)	(27,121)	(21,788)	(15,838	11,830	31,167	20,755	20,755	27,459	(11,176)
DF@9%	1.000	0.917	0.842	0.772	0.708	0.650	0.596	0.547	0.502	0.460	0.422	0.388
Present value	(8,717)	(5,589)	(15,059)	(20,937)	(15,426)	(10,295)	7,050	17,048	10,419	9,547	11,587	(4,336)

NPV = (24,708)

Working:

Revenue : (5kg/tree x 100trees/ha x 100ha) x K70/Kg = K7,000,000

Part b

Purely on financial grounds, the Cashew project is generating a negative NPV of more than K24 million and therefore should not be undertaken as shareholder value would reduce by the NPV amount. However, there are other factors that should be considered before a final decision is made, these include,

1. Other key stakeholders - Government

KHL is a quasi-government company, therefore Government has a significant influence on the company. In this regard, political influence in the affairs of KHL cannot be ignored. It is more likely that the ruling party, which forms government, would support the project as it would lead to over 3,500 jobs being created. These are potential votes for the ruling party, seeing that general elections are near.

2. Time horizon of the project

KHL evaluates projects over a ten year horizon. However, a cashew nut tree has a life span of over 50 years; therefore, there are significant cashflows that has been ignored beyond year 11. These cashflows are likely to make the project generate a positive NPV.

3. Other key stakeholders – community and residents of Kawambwa

Other stakeholders such as the community and local residents of Kawambwa would be in support of the project as it will provide potential employment for them.

4. Being a government funded project and in the agriculture sector, management of KHL should consider negotiating some tax incentives, which could significantly influence the viability of the project.
5. The cost of establishing and managing the plantation of K35,850 has remained the same throughout the project's life. However, as the cashew tree grows and matures, there is less management as the tree is known to be drought resistant. Therefore, the cost of managing the plantation should have been reducing. Also, this cost is grouped with that of establishment of a plantation, however, at 1,100 Ha the company seems to have stopped planting and establishing cashew plantations
6. The economic yield seems to be more in the cashew than the coffee beans. There is need to compare the revenues per Ha and profit per Ha for the coffee and cashew so that resources are focused on the more profitable products.

SOLUTION THREE

a) Dorly's is facing a number of problems:

Old fashioned quality control (QC) system

The current system takes a traditional approach to QC. The system focuses on checking the quality of the toys produced as opposed to producing for quality. At present, defects are accepted and expected. This is an inefficient system and will result in a number of costs such as:

- Appraisal costs – the costs of quality inspection and tests.
- Internal failure costs – the costs of detection and rectification of quality failure.
- External failure costs – the costs incurred after a faulty part has been passed onto the customer.

Potential loss of customers

If the problem of substandard quality continues, customers may be lost or they may impose penalties. Key customers are becoming more demanding and will not continue to tolerate mistakes.

Threat from competitors

Other industry competitors have taken substantial and successful steps in improving quality. There is a risk that Dorly's will fall behind its competitors and lose market share.

Defects still occur

The current system results in defects, despite the hard work of the inspectors. This may be because the inspectors carry out their work too early in the process and as a result some faults may be missed. In addition, we are told that inspectors are allowed to exercise individual judgement. The absence of formal standards may not be effective.

Workforce resistance

The workforce is complacent, believing that "mistakes happen". There is no buy-in to the quality process. It appears that most of the responsibility for quality has been passed to the quality inspectors.

Managers are out of touch

Senior managers are out of touch with quality standards. Unless this is addressed, it will be very difficult to solve the problems surrounding quality.

Role of middle managers and quality inspectors

Other manufacturers have improved quality whilst also removing the need for middle managers and quality inspectors. This may be an unnecessary and costly resource and an alternative approach to quality control may be more effective.

b) **Addressing quality problems**

The problems of quality are being addressed is a number of ways:

1 **Prioritisation of quality**

Initiative

Senior managers recently devoted an entire weekend to formulating the quality programme. This demonstrates that the issue has been prioritised and that improved quality is seen as a key part of the business strategy.

Potential problem

The CEO, together with the senior managers, was responsible for implementing the programme. Without the input from lower level managers and employees, key implementation issues may not be identified and it may be difficult to spread the quality ethos throughout the organisation.

Recommendation

Input from all levels should be obtained. This should reduce the number of potential problems, help to obtain buy-in and help to change the culture of the organisation to one where all employees embrace quality.

2 **Taking advice from third parties**

Initiative

Dorly's has sought advice from a government advisor and has visited other manufacturers who have taken steps to improve quality. The lessons learnt have been used to develop a quality improvement programme called "putting quality first".

Potential problem

In addition to the lack of employee involvement discussed above, simply copying competitors may not work. The techniques used may result in a host of new problems, current problems may not be addressed and competitive advantage will not be obtained by simply mirroring competitors.

Recommendation

A proven quality improvement programme should be implemented. One such programme is total quality management (TQM). Fundamental features include:

- Prevention of errors before they occur, e.g. through the use of top quality supplies and highly trained staff.
- Participation by all employees.
- Recognition of the need for continual change and improvement.
- Recognition of the vital role of customers and suppliers.

3 **Selling the programme to the workforce**

Initiative

Senior managers have recognised that the changes will only be successful if they are sold to the workforce.

Potential problem

This is a fundamental change. Employees may have concerns about changes to their roles, potential redundancies or new skills and therefore training required. The success of the change may be dependent on more than a process of simply selling the change to the workforce.

Recommendation

For change to be successful, any restraining forces must be removed by addressing the concerns of the workforce. As mentioned, a TQM approach involves all employees embracing the quality ethos. Rather than simply selling the changes, other methods, as recommended by Kotter and Schlesinger, could be used, e.g.

- Education and communication using small group briefings and training.
- Participation and involvement using small groups or employee representatives.

4 **Role review**

Initiative

The roles of the quality control inspectors and middle managers are going to be reviewed.

Potential problem

The removal of these roles may result in key tasks not being completed or senior managers becoming overburdened as they take on some of the middle managers' workload.

Recommendation

A detailed review should be carried out before any decision is made. If a decision is taken to remove these roles, senior managers must be given sufficient resources to implement the change programme effectively and to ensure that they are not overburdened.

SOLUTION FOUR

a) In practice, manager's performance is commonly judged by short-term achievements, such as sales growth, profits, keeping costs within budget and efficiency improvements. It is therefore hardly surprising that managers will concentrate on achieving short-term objectives even if this leads to tactical decisions which might be harmful for the longer-term interests of their organisation.

Tactical decisions which involve the sacrifice of longer term interests include:

i) The postponement or abandonment of capital projects which might be profitable in the longer term, but which would reduce profits and affect cash flows in the shorter term;

ii) Cutting research and development expenditure to save costs, even though new product developments are thereby sacrificed;

iii) Keeping spending on staff development and training to a minimum;

iv) Reducing the level of customer service, to save costs.

An organisation's strategic interests will usually be best served by making compromises or 'trade-offs' between longer-term and short-term objectives (S/L trade-offs). Medium-term strategy will influence tactical decisions when these trade-offs are made. However, managers must be encouraged to give consideration to the longer term, and the following approaches will probably be necessary.

i) The strategic objectives of the business should be clearly stated.

ii) Managers should be made aware of these objectives, and the importance that the organisation places on them. They should also be encouraged to see how their individual decisions contribute to the achievement of these objectives.

iii) The board of directors should have a clear policy for medium-term programmes, such as product-market developments.

iv) The performance of managers should be evaluated in terms of what they have contributed to the achievement of longer-term aims as well as short-term budgets.

v) Short-term targets should be realistic, and budgets should not be over-ambitious. Ambitious annual budgets will force managers to concentrate exclusively on the short term.

vi) Managers should be provided with sufficient information to let them know what short/long trade-offs they are making, and to reach a balanced judgement in their decisions.

b)(i) Corporate Social Responsibility (CSR) deals with the role of business in society. Its basic premise is that corporate managers have an ethical obligation to consider to address the needs of society not just to act solely in the interest of the shareholders or their own self-interest. In other words, CSR is used to describe a wide range of obligations that an organisation may feel it has towards secondary or external stakeholders, including the society in which it operates. It is an organisation's obligation to maximize positive shareholder benefits while minimizing the negative effects of its actions. It is not the same as ethical behaviour although the two are related.

Sustainability is about maintaining the world's resources rather than depleting them, and recognises both environment and social pressures on resources.

Sustainable development sets out the performance areas that companies should focus on, and also contributes that vision and societal goal's that the organisation should work towards, i.e., environmental protection, social justice and equity and economic development. In the environmental dimension (polluting air and effluent contaminating rivers) and social dimension (alcohol abuse, prostitution and unemployment), the mining companies on the Copperbelt failed regarding sustainable development.

The goal of sustainable development is to meet the needs of the present without compromising the ability of future generations to meet their own needs. Firms which become sustainable enterprises may increase their competitive advantage.

b) (ii) CSR can help an organisation in its sustainable development in the following ways:

- **Corporate reputation and enhanced image**

Good organisational performance in relation to CSR can build reputation while poor performance can damage brand value. Good corporate reputation is a key driver, since many of the other business benefits of CSR flow from a good reputation.

CSR activities will help an organisation to build good relationships with its various stakeholders and this, in turn, will help it on a number of fronts.

- **Earn and maintain social licence to operate**

For resource companies, the company's reputation as a good corporate citizen determines its social licence to operate and expand. Failing to obtain community support can increase costs by holding up approvals in lengthy public hearings.

- **Establish or improve reputation with investors**

There is a small but growing trend in the investment community to use environmental and social performance factors to evaluate a company's suitability for investment because "a company's environmental and social performance is an increasingly potent proxy and leading indicator" to future profitability potential".

- **Reduce and manage business risks**

Managing risk in an increasingly complex market with greater stakeholder scrutiny of corporate activities is becoming essential to business success.

Companies are starting to realise that failing to invest the time and resources in understanding stakeholder expectations and addressing their concerns upfront can increase risks to business such as project delays or cancellations, public relations disasters and damaged reputations.

- **Employee morale, productivity, maintenance and employee retention**

CSR programmes contribute to increased employee morale and motivation and these, in turn, translate into greater productivity.

Good employment practices and safety records demonstrate to employees that CR Ltd cares, and this improves labour productivity.

This has advantages in attracting and maintaining good people, keeping them loyal and motivated, all of which translate into better service to their clientele.

There is growing evidence that companies with strong CSR or sustainability reputations often find it easier to recruit and retain high quality employees in tight labour markets. C Ltd stands to benefit from all this.

- **Competition for access to resources**

A good track record for managing social and environmental performance and a demonstrated willingness to work with stakeholders to address their concerns can enhance the success of bids when competing with others for access to resources such as energy, minerals and forests.

- **Meet changing stakeholder expectations**

An important driver for many companies is the expanding definition of who constitutes a stakeholder and the changing nature of their expectations. More and more stakeholders want not only to be informed of business's activities and performance, but also to be involved in setting social and environmental performance objectives.

- **Improved relationships with stakeholders, dispute resolution and issues management**

Most companies cite improved relationships with stakeholders as an outcome of their CSR activities. When stakeholders see that companies like CR Ltd are open to hearing their concerns and working with them to address them, trust is built which is invaluable to resolving disputes and issues.

CSR's work to re-establish channels of communication with city councils, district councils, communities, chiefs and village headmen can help build the trust that will allow them to move from a situation where disputes are resolved through the courts at a cost to all involved, to a more collaborative approach where these can be addressed and resolved outside the courts.

- **Expedited permits and improved relationships with regulators**

Companies that demonstrate they are engaging in practices that satisfy and exceed regulatory compliance can develop better relationships with regulatory agencies such as ZEMA, WARMA, ERB, and NWASCO which can mean less red tape and scrutiny.

A number of jurisdictions are beginning to recognise and reward companies that have demonstrated themselves to be socially and environmentally responsible by requiring fewer inspections and paper work, and giving these companies fast-track treatment when applying for operating permits and other forms of governmental permission.

SOLUTION FIVE

The transfer pricing rule when there is a market for the intermediate product is to charge a market price for product Panado (P). The rationale for this would be that the opportunity cost forgone by the BP Group would be the contribution earned by Division C from the external sale. It is likely that internal transfers incur lower costs of delivery, packaging, advertising, bad debts, etc than external transfers. These are savings which are also known as avoidable costs. So the 20% discount in the selling price may represent these savings. E.g. if product P market price is K5, 20% of this is K1. K1 is the saving. Internal transfers to Division C would be made at K4 per unit and this division would report the same profit as from external sales and its rate of return will not be affected. Division C would have lower buying-in costs compared to the market and so could make decisions that could result in overall profit maximization (of course, other things being equal).

b(i)

Market state 'E'

As there is unlimited demand from external sales, Division A would have to forego one unit of external sale of product A for every unit of A transferred to Division B. The opportunity cost is selling price less variable costs =K54 – K36=K18.

The transfer price (TP)= VC + opportunity cost

= K36 +K18

= K54

This is the same as the market price

Market state ''G''

Division A's production schedule would be:

External sales transfer	120,000 units
Internal sales transfers to Division B (60,000 X 3)	180,000 units
	300,000 units

Division A's maximum capacity is 430,000 units. It follows that there will be spare capacity in Division A. Therefore, there is no opportunity cost.

TP = VC + opportunity cost

= K36 + 0

= K36

(ii) There is spare capacity in Division B with both market states. Therefore, Division B manager will accept the special order if the unit price of K140 is higher than its variable cost (own variable cost plus transfer price).

Division B Manager's View Point.

Situation	TP Per Unit	Division B VC	Order Price	Division B Decision
I (Std . VC)	K36	K136(K28+K36x3)	K140	Accept
II(Std VC + OC)	K54 [36+18]	K190(K28+K54x3)	K140	Reject
III(Std VC +FC)	K38(36+K860) 430	K142(K28+K38x3)	K140	Reject
IV(Std . VC)	K36	K136(K28+K36x3)	K140	Accept

BP Group view Point

If market state 'E' exists, the relevant cost of the order is

DIV. A TP [K36x3] = K108

DIV. B VC = K28

Opportunity Cost is K18x3 = K54

Relevant Cost = TP K190

Decision: Reject the order if market state 'E' arise because the order price is lower than the variable cost (K140<K190)

If market state 'G' prevails, there will be sufficient capacity in Division A to complete the order without displacing external sales. Relevant cost is

DIV. A variable cost (K36x3) K108

DIV. B variable cost K 28

K136

Decision: BP Group would accept the order if market state "G" arises because the relevant variable cost is less than the K140 price offered.

Summary of the decisions

Situation	Div. B Manager	BP Group
I	Accept	Reject
II	**Reject**	**Reject**
III	Reject	Accept
IV	**Accept**	**Accept**

Overall advice: The BP Group and Division B will make the same decision in situation's 2 and 4.

(c) (i) Existing ROCE and RI

ROCE=$\frac{profit}{capital\ employed}\ x\ 100\%$ RI = Division profit – notional interest x capital employed

K800, 000 – 18% x K3,200, 000

ROCE= $\frac{K800\ 000}{\frac{K}{K3,200,000}} X\ 100\%$ = K224, 000

= 25%

(ii) Investment 1 K '000

ProfitCE

Existing	800		3, 200
Add: savings	200	new plant	600
Less: Dep'n			
(600/4)	(150)(150)		
Revised	8503650		

ROCE = 850/3,650 X 100%= **23.3%**

RI = 850 – 18% x 3650 = **K193 (193,000)**

Investment 2 K'000

ProfitCE

Existing	800		3, 200
Less: System cost Staff (16) (18)		Inventory reduction	(90)
Revised	7663, 110		

ROCE = $\frac{766}{3110}$ x 100% = **24.6%**

RI = K766 – 18% x K3, 110 =**K206.2(206,200)**

Investment 3

	Profit	CE	
Existing	800		3,200
Add: extra contribution	50	Increase in receivables	70
Revised	850	3,270	

ROCE = $\frac{850}{3,270} x100\%$ = **26%**

RI = 850 – 18% X K3,270 = **K261.4(261,400)**

(iii) Goal congruence will exist for each investment if it meets the group's 18% DCF criterion as well as satisfying Division C's wish to maintain next year's performance.

Investment	Year	Cash inflow	Cash outflow	Net CF	DF@ 18%	PV	Group Decision

I	0	-	(600)	(600)	1.0	(600)	
	1 - 4	200	-	200	2.690	538	
				NPV		**(62)**	**Reject**
II	0	-	(16)	(16)	1.0	(16)	
	1	90	(18)	72	0.847	61	
	2 - 4	-	(18)	(18)	1.843	(33)	
				NPV		**12**	**Accept**
III	1	50	(70)	(20)	0.847	(17)	
	2 – 4	50	-	50	1.843	92	
					NPV	**75**	**Accept**

Summary (ROCE VS DCF)

Investment	Revised ROCE	Original ROCE	DIV. C Decision	Group Decision
I	**23.3%**	**25%**	**Reject**	**Reject**
II	24.6%	25%	Reject	Accept
III	**26.0%**	**25%**	**Accept**	**Accept**

Advice: Goal congruence will exist for investments I and III.

Summary RI V DCF (K'000)

Investment	Revised RI (K'000)	Original RI (K'000)	DIV. C Decision	Group Decision
I	193.0	224	**Reject**	**Reject**
II	206.2	224	Reject	Accept
III	261.4	224	**Accept**	**Accept**

Advice: Goal congruence will exist for investments I and III if RI is used as a decision criterion.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.6: ADVANCED FINANCIAL MANAGEMENT

FRIDAY 13 DECEMBER 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

The Directors of G-Ring Plc are considering two proposals which have been put forward for further consideration after a meeting of the executive directors which discussed the future investment and financing strategy of the business. G-Ring Plc is a listed manufacturing company.

Proposal one

G-Ring Plc has been invited to make a tender for a contract to manufacture twelve (12) special medical equipment, P-DEEPs. The Manufacturing of P-DEEPs would take a total of three years, commencing immediately, and the contract price is K2.5million for each machine payable in three instalments. The first 30% instalment is payable immediately while the second instalment of 60% will be made at the end of year two. The final instalment is payable at the end of the third year. The company would manufacture four machines each year. G-Ring Plc expects a minimum return of 15% per year in money terms from this project.

The information on the materials required for this project is provided in the table below:

Table1: Project Materials

Category of material	Quantity of material per machine	Current purchase price per unit
	Units	K
A	30	10,000
B	55	11,000
C	35	8,000

Materials required for the contract must be purchased and paid for annually in advance. The prices for the material are expected to increase at an annual compound rate of 25%.

The project will require both skilled and unskilled labour. Each of twelve machines will require 3,500 hours of skilled labour and 5,500 hours of unskilled labour. Current wage rates are K50 per hour for skilled labour and K20 per hour for unskilled labour.

G-Ring expects to suffer a 50% shortage of skilled labour during the end of the first year so that acceptance of the contract would make it necessary to give up other work on which a contribution of K200 per hour in money terms, net of skilled labour costs, would be earned. No unskilled labour would be needed for the other work.

For the first year only, the company expects to have 6,000 surplus unskilled labour hours. G-Ring has an agreement with its labour force whereby it lays off employees for whom there is no work and pays them 50% of their normal wages during the layoff period. All wage rates are expected to increase at an annual compound rate of 10%.

Overhead costs are currently allocated to contracts at a rate of K45 per skilled labour hour consisting of fixed overheads which includes equipment depreciation of K10. Allocated fixed overheads are expected to increase by 15% per year.

Highly Specialised equipment will be required for this contract, and will be procured immediately at a cost of K1.5million. The scrap value of the equipment at the end of the project is K500,000. Capital allowances are available on a reducing balance basis at the rate of 25% per year. Corporate tax is payable one year in arrears at the rate of 30% and tax liabilities are deemed to arise upon receiving the taxable cash flows.

Proposal two

In the second proposal, the Directors of G-Ring plc are considering the acquisition of HB Ltd. The projected cash flows of the two companies over the next 5 years are as follows:

Year	1	2	3	4	5 (Including terminal value)
	K'm	K'm	K'm	K'm	K'm
G-Ring Plc	25	31	40	45	82
HB Ltd	12	15	21	23	89

Synergistic benefits of K19million per year are expected to result from the acquisition.

The current market values are as follows:

	G-Ring	HB Ltd
Equity(K'm)	180	65
Debt (K'm)	-	-
Total(K'm)	180	65

G-Ring will pay K90million to acquire all the share capital of HB Ltd. The acquisition will be financed entirely by the issuance of debt. However, there is debate as to whether the company should use debt with either floating interest rate or fixed rate. Both G-Ring Plc and HB Ltd have asset betas of 0.85 and 1.2 respectively. The government bonds are 6% and the expected market return is 14%. It is expected that if the two companies combine, the before tax cost of debt will be 9%. The corporate tax is 30% per year.

Required:

Write report to the Board of Directors of G-Ring Plc covering the following:

(i) Evaluation of financial viability of proposal one (using the Net Present Value technique) and proposal two. (28 marks)

(ii) Discuss the reasons a company might choose to borrow at a floating interest rate when there is always greater certainty concerning the amounts payable with fixed rate loans.

(12 marks)

[Total: 40 Marks]

SECTION B
Attempt any THREE (3) questions in this section.

QUESTION TWO

COP, a state owned corporation in Arusha, a fast developing country, in Southern Africa, is the holding company to about 34 local companies across 12 sectors in its portfolio and wholly dependent on dividends that come from these companies in the group. It is from these funds that the COP is able to invest in new projects and manage its operations.

In line with its mandate to see transformation of companies in the group and to assist those companies that are facing financial challenges, COP increased its dividend policy to 40% of net profit after tax from 20% as part of its strategic plan for the next five years (2016 to 2020). This follows substantial increases in copper prices, which is the biggest contributor of Arusha's Gross Domestic Product. The dividend policy is reviewed by COP every five years, and all companies within the group are expected to adhere to the policy as determined by COP.

The COP portfolio spans across 12 different sectors although the main ones include agriculture, energy, manufacturing, infrastructure, tourism, technology and mining.

Below are the financial results of four companies within the COP group for the year ended 31 December 2018:

Company	**CHM Group**	**AF Ltd**	**ECO Ltd**	**AM Ltd**
Industry	**Mining**	**Agriculture**	**Energy**	**Telecommunication**
COP Holding	**80%**	**100%**	**100%**	**100%**
	K'million	**K'million**	**K'million**	**K'million**
Revenue	12,500	265	425	215
Cost of sales	(6,450)	(42)	(215)	(78)
Gross profit	**6,050**	**223**	**210**	**137**
Operating costs	(2,450)	(145)	(184)	(100)
Depreciation	(650)	(15)	(9)	(10)
Operating Profit	**2,950**	**63**	**17**	**27**
Interest	(455)	-	(11)	(14)
Profit before Tax	2,495	63	6	13
Tax@30%	(748.5)	(18.9)	(1.8)	(3.9)
Profit after Tax	**1,746.5**	**44.1**	**4.2**	**9.1**
Capitalized costs	-	108	-	-
Net Profit	**1,746.5**	**152.1**	**4.2**	**9.1**
Reinvestments	1,000	65	5	6

Additional information

CHM Group is listed on the Stock exchange and hold a 20% interest in all the major mining companies in Arusha which make up the CHM Group, and during the year the Non-Controlling Interest's share of the profits amounted to K525 million.

AF Ltd manages forest plantations and is not listed on the stock exchange. The company has been investing heavily in forest plantation expansions across the country. In accounting for its plantation in formation costs, management of AF has adopted the cost model under IAS 41 as a result; all costs related to plantations during the year are capitalized. In this regard, the Finance Director of AF Ltd commented in one of the meetings that a dividend based on profit is not realistic and sustainable for the company, and proposed one based on the free cash flows.

With the exception of depreciation, all other costs are cash expenses for all companies.

Required:

(a) Based on the current COP Group dividend policy, calculate the dividend payable to the holding company. (3 marks)

(b) Following the comment by the Finance Director of AF Ltd, calculate the dividend that would be payable to the COP holding company using a free cash flow method. (7 marks)

(c) Discuss the dividend policy of the COP holding company and advise the Board of Directors of COP on the use of dividends as the ONLY source of income to finance its operational and investments plans. (10 marks)

[Total: 20 Marks]

QUESTION THREE

You are the treasurer accountant of a company based in Zambia that deals with a number of foreign customers and suppliers. You company recently bought goods from a Chinese based company amounting to 1,456,000 Chinese Yen (RMB) with payment due in 4 months' time.

Your supervisor, the financial director has given you the following information about foreign exchange rates and interest rates.

Spot exchange rate, RMB 1 = K1.2850 - K1.3320

ZAMCO Bank has quoted a 4 months forward as; discount at 31.5n on the relevant spot rate.

Other information obtained from the market is as follows:

Interest rates	**Deposit**	**Borrowing**
Zambia	8% pa	30% pa
China	9% pa	15% pa

Assume all currencies including the Zambian Kwacha are freely traded on the money market.

Required:

(a) Explain the course of action that you would recommend to the finance director to manage the currency risk. (10 marks)

(b) Some great stock market investors, view derivatives as a "time bomb", but many corporate treasurers clearly perceive them as very useful tools for reducing risk.

Explain and discuss the reasons for such divergent viewpoints. (10 marks)

[Total: 20 Marks]

QUESTION FOUR

CEC is a Zambian publicly traded Electricity Company listed on the LuSE stock exchange under the energy sector since 21 January 2008. The Company was first incorporated more than 60 years ago and privatized 20 years back.

The business of CEC is the supply, transmission, distribution and generation of electricity. CEC also has interests in telecommunications. Its customers, for the power business, are the mining companies operating in the copper mining belt straddling the border between Zambia and the DRC and utilities in the Southern African region that access transmission services. Its telecommunications business is undertaken through a joint venture, CEC Liquid Telecom, which builds fibre networks and provides wholesale bandwidth, and its retail arm Hai Telecoms. CEC is also engaged in international power trading, and is now one of the largest power traders in the Southern African region.

CEC's market share of electricity sales in Zambia is about 50% of national energy consumption with domestic customers taking about 40% of Zambia's national peak demand.

CEC is the main supplier of power to the mining industry in Zambia a service it has consistently and reliably provided since 1953, when the Company was formed. CEC co-owns and operates the transmission interconnection between Zambia and the DRC, which forms an integral and important part of the Southern African region's central transmission corridor enabling the development of a competitive international power market in the SADC. The following information has been collected on CEC:

Extract of the financial statements for the year ended 31 December 2017.

Profit and loss

	$'000
Revenue	389,532
Gross profit	130,438
Operating profit	79,579
Profit before tax	75,128
Profit after tax	48,378

Statement of financial position

	$'000
Property, plant and equipment	437,533
Total assets	619,960
Share capital	2,849
Share premium	60,078
Revaluation reserves	142,991
Retained earnings	144,992
Total non-current liabilities	172,151
Total current liabilities	96,899

Other information;

Total dividends paid out:	$21m
Number of shares:	1,625,000,597
Dividend yield:	8.75%
Price to earnings ratio:	4.92
Year-end rate:	K9.7614 to $1

	2017	**2018(forecast)**	**2019(forecast)**
Free cash flows $'000	22,528	24,736	27,160

Management of CEC estimates cash flows beyond 2019 to grow at the rate equal to that of dividends for the foreseeable future. The cost of capital is approximately equal to the return on equity for the company. Growth in dividends and cash flows beyond 2019 is determined based on the opportunity cost of the profits not distributed.

On 22 January 2018, Zambian Transmission a limited liability partnership incorporated under the laws of England, currently wholly owned by CDC has made a firm offer to buy all the CEC shares at a price of K2.829 per share.

CDC is the United Kingdom's development finance institution and is wholly owned by the UK Government Department for International Development ("DFID"). As at 31 December 2016, CDC had total assets worth US$ 6.0 billion and has a specific mandate to invest in infrastructure assets across Africa.

The board of CEC is due to sit within the next 21 days and they have engaged an independent finance consultant to provide an evaluation of the offer by Zambian Transmission LLP.

Required:

As an independent consultant, write a report to the Directors of CEC on the offer by Zambian Transmission. Your report should include:

(i) Calculation of a range of values for CEC using the assets based, P/E ratio, dividend based and cash flow based valuation methods. (12marks)

(ii) Discussion of each of the valuation method used in (i) above. (6 marks)

(iii) Recommendation as to whether the Directors should accept or reject the offer. (2 marks)

[Total: 20 Marks]

QUESTION FIVE

A Firm Z has a debt ratio slightly below average for its industry and has announced that it intends to conduct a significant new debt issue. Assume you are an investment advisor whose clients have sizeable proportions of their assets in Firm Z.

Following a research you conducted, you have outlined the following theories that you think would be important to consider as you advise Firm Z.

1) Static trade-off theory

2) Agency theory

3) Signaling theory

4) Pecking-order theory

Firm Z has expected earnings before interest and taxes (EBIT) of K1 million in perpetuity and a corporate tax rate of 37%. The outstanding debt of Firm Z currently has an interest rate of 10% and totals K200, 000. Firm Z has an unlevered cost of capital rate of 13%.

Required:

(a) Explain each of the above given theories. (8 marks)

(b) Assess the value of Firm Z under MM Proposition I with taxes based on the theories above. (6 marks)

(c) Discuss how the financial managers of the firm could maximise firm value by altering its debt to equity ratio. (6 marks)

[Total: 20 Marks]

END OF PAPER

Formulae

Modigliani and Miller Proposition 2 (with tax)

$$k_e = k_e^i + (1 - T)(k_e^i - k_d)\frac{V_d}{V_e}$$

Two asset portfolio

$$s_p = \sqrt{w_a^2 s_a^2 + w_b^2 s_b^2 + 2w_a w_b r_{ab} s_a s_b}$$

The Capital Asset Pricing Model

$$E(r_i) = R_f + \beta_i (E(r_m) - R_f)$$

The asset beta formula

$$\beta_a = \left[\frac{V_e}{(V_e + V_d(1 - T))}\beta_e\right] + \left[\frac{V_d(1 - T)}{(V_e + V_d(1 - T))}\beta_d\right]$$

The Growth Model

$$P_o = \frac{D_o(1 + g)}{(r_e - g)}$$

Gordon's growth approximation

$$g = br_e$$

The weighted average cost of capital

$$WACC = \left[\frac{V_e}{V_e + V_d}\right]k_e + \left[\frac{V_d}{V_e + V_d}\right]k_d(1 - T)$$

The Fisher formula

$$(1 + i) = (1 + r)(1 + h)$$

Purchasing power parity and interest rate parity

$$S_1 = S_0 x \frac{(1 + h_c)}{(1 + h_b)} \qquad F_0 = S_0 x \frac{(1 + i_c)}{(1 + i_b)}$$

Modified Internal Rate of Return

$$MIRR = \left[\frac{PV_R}{PV_I}\right]^{\frac{1}{n}}\left(1 + r_e\right) - 1$$

The Black-Scholes option pricing model

$$c = P_a N(d_1) - P_e N(d_2)e^{-rt}$$

Where:

$$d_1 = \frac{\ln(P_a / P_e) + (r + 0.5s^2)t}{s\sqrt{t}}$$

$$d_2 = d_1 - s\sqrt{t}$$

The Put Call Parity relationship

$$p = c - P_a + P_e e^{-rt}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·941	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·305	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Standard normal distribution table

	0·00	0·01	0·02	0·03	0·04	0·05	0·06	0·07	0·08	0·09
0·0	0·0000	0·0040	0·0080	0·0120	0·0160	0·0199	0·0239	0·0279	0·0319	0·0359
0·1	0·0398	0·0438	0·0478	0·0517	0·0557	0·0596	0·0636	0·0675	0·0714	0·0753
0·2	0·0793	0·0832	0·0871	0·0910	0·0948	0·0987	0·1026	0·1064	0·1103	0·1141
0·3	0·1179	0·1217	0·1255	0·1293	0·1331	0·1368	0·1406	0·1443	0·1480	0·1517
0·4	0·1554	0·1591	0·1628	0·1664	0·1700	0·1736	0·1772	0·1808	0·1844	0·1879
0·5	0·1915	0·1950	0·1985	0·2019	0·2054	0·2088	0·2123	0·2157	0·2190	0·2224
0·6	0·2257	0·2291	0·2324	0·2357	0·2389	0·2422	0·2454	0·2486	0·2517	0·2549
0·7	0·2580	0·2611	0·2642	0·2673	0·2704	0·2734	0·2764	0·2794	0·2823	0·2852
0·8	0·2881	0·2910	0·2939	0·2967	0·2995	0·3023	0·3051	0·3078	0·3106	0·3133
0·9	0·3159	0·3186	0·3212	0·3238	0·3264	0·3289	0·3315	0·3340	0·3365	0·3389
1·0	0·3413	0·3438	0·3461	0·3485	0·3508	0·3531	0·3554	0·3577	0·3599	0·3621
1·1	0·3643	0·3665	0·3686	0·3708	0·3729	0·3749	0·3770	0·3790	0·3810	0·3830
1·2	0·3849	0·3869	0·3888	0·3907	0·3925	0·3944	0·3962	0·3980	0·3997	0·4015
1·3	0·4032	0·4049	0·4066	0·4082	0·4099	0·4115	0·4131	0·4147	0·4162	0·4177
1·4	0·4192	0·4207	0·4222	0·4236	0·4251	0·4265	0·4279	0·4292	0·4306	0·4319
1·5	0·4332	0·4345	0·4357	0·4370	0·4382	0·4394	0·4406	0·4418	0·4429	0·4441
1·6	0·4452	0·4463	0·4474	0·4484	0·4495	0·4505	0·4515	0·4525	0·4535	0·4545
1·7	0·4554	0·4564	0·4573	0·4582	0·4591	0·4599	0·4608	0·4616	0·4625	0·4633
1·8	0·4641	0·4649	0·4656	0·4664	0·4671	0·4678	0·4686	0·4693	0·4699	0·4706
1·9	0·4713	0·4719	0·4726	0·4732	0·4738	0·4744	0·4750	0·4756	0·4761	0·4767
2·0	0·4772	0·4778	0·4783	0·4788	0·4793	0·4798	0·4803	0·4808	0·4812	0·4817
2·1	0·4821	0·4826	0·4830	0·4834	0·4838	0·4842	0·4846	0·4850	0·4854	0·4857
2·2	0·4861	0·4864	0·4868	0·4871	0·4875	0·4878	0·4881	0·4884	0·4887	0·4890
2·3	0·4893	0·4896	0·4898	0·4901	0·4904	0·4906	0·4909	0·4911	0·4913	0·4916
2·4	0·4918	0·4920	0·4922	0·4925	0·4927	0·4929	0·4931	0·4932	0·4934	0·4936
2·5	0·4938	0·4940	0·4941	0·4943	0·4945	0·4946	0·4948	0·4949	0·4951	0·4952
2·6	0·4953	0·4955	0·4956	0·4957	0·4959	0·4960	0·4961	0·4962	0·4963	0·4964
2·7	0·4965	0·4966	0·4967	0·4968	0·4969	0·4970	0·4971	0·4972	0·4973	0·4974
2·8	0·4974	0·4975	0·4976	0·4977	0·4977	0·4978	0·4979	0·4979	0·4980	0·4981
2·9	0·4981	0·4982	0·4982	0·4983	0·4984	0·4984	0·4985	0·4985	0·4986	0·4986
3·0	0·4987	0·4987	0·4987	0·4988	0·4988	0·4989	0·4989	0·4989	0·4990	0·4990

This table can be used to calculate $N(d)$, the cumulative normal distribution functions needed for the Black-Scholes model of option pricing. If $d_i > 0$, add 0·5 to the relevant number above. If $d_i < 0$, subtract the relevant number above from 0·5.

CA3.6 SUGGESTED SOLUTIONS

SOLUTION ONE

To: The Directors of G-Ring
From: Financial Consultant
Date: xxxxxxxxx
Subject: Report on the Proposed Investments

The report presents the results of the financial evaluation of the two proposed investments as well as the possible reasons for choosing floating interest rate.

<u>Financial evaluation</u>
Proposed one involves the manufacturing of special medical equipment and the results shows that the investment gives a positive NPV of K2.47million (see appendix 1). This means that the wealth of shareholders will increase by K2.47million. On the other hand, proposal two involves the acquisition of HB ltd. However, the financial evaluation shows that if the acquisition goes ahead, the existing shareholders 'wealth will decrease by K51.32million (see appendix 2).

Therefore, you should consider investing in proposal one based on the above findings. However, you should also consider other financial and non-financial factors such the accuracy of estimates, inflation, economic environment, alternative investments e.t.c before making the final decision.

<u>Reasons for choosing floating interest rate:</u>

Lower floating rates
One reason may simply be that the floating rates available are lower than fixed rates. Managers may take no account of the greater certainty of fixed rates.
Risk appetite
The directors may be prepared to take the risk that floating rates will increase above fixed rates in order to be able to obtain a potential cost advantage from floating rates remaining below fixed rates.
Expectations that interest rates fall
Managers may choose floating rate finance because it has the strong expectation that interest rates will fall. It may not want to commit to relatively high fixed interest rates. Term of the loan A company may choose lower floating rates over higher floating rates in a shorter-term arrangement. Even if it is possible that the floating rates will rise, managers may feel it unlikely that there will be a large unpredictable rise.
Liquidity issues
Even if it is possible that floating rates will increase, a company may prefer to pay floating rates that are lower than fixed rates short-term because it lacks liquidity. Managers may believe that the company will be better able to afford higher floating rates in future if they expect its operating cash flows to improve.
Diversification
Managers may wish to be funded by a mix of floating rate and fixed rate debt. They may believe that the existing proportion of fixed rate debt in the company's financing structure is too high, and leaves the company exposed to a longer-term fall in floating rates.
Thank you

Sign

APPENDIX: FINANCIAL EVALUATION OF PROPOSAL ONE					
Year	0	1	2	3	4
Revenue (W.1)	9,000,000	0	18,000,000	3,000,000	-
Materials (W.2)	(4,740,000)	(5,925,000)	(7,406,250)	-	-
Labour (W.3)	-	(1,254,000)	(1,379,400)	(1,517,340)	-
Additional labour(W.3)	0	(66,000)	-	-	-
Taxable cash flow	4,260,000	(7,245,000)	9,214,350	1,482,660	-
Tax@30%		(1,278,000)	2,173,500.0	(2,764,305)	(444,798)
Tax savings			112,500	84,375	103,125
Lost contribution on labour		(1,050,000)			
Initial Investment	(1,500,000)			500,000	
Net Cash Flows	2,760,000	(9,573,000)	11,500,350	(697,270)	(341,673)
Discount@15%	1.000	0.870	0.756	0.658	0.572
Present Values	**2,760,000**	**(8,328,510)**	**8,694,265**	**(458,804)**	**(195,437)**
NPV	**2,471,514**				
1. Revenue	0	1	2	3	
First instalment (K2.5m x12x30%)	9,000,000	-			
Second instalment(K2.5m x 12 x60%)			18,000,000		
Final instalment (K2.5m x 12 x 10%)				3,000,000	

2. Materials					
A	0	1	2		
Quantity(30 x 4)	120	120	120		
Price	10,000	12,500	15,625		
Total	1,200,000	1,500,000	1,875,000		
B	0	1	2		
Quantity(55 x 4)	220	220	220		
Price	11,000	13,750	17,188		
Total	2,420,000	3,025,000	3,781,250		
C	0	1	2		
Quantity(35 x 4)	140	140	140		
Price	8,000	10,000	12,500		
Total	1,120,000	1,400,000	1,750,000		
GRAND TOTAL	**4,740,000**	**5,925,000**	**7,406,250**		
3.Labour					
Skilled Labour	1	2	3		
Hours (3,500 x 4)	14000	14000	14000		
Rate by 10%	55	60.5	66.55		
Total	770,000	847,000	931,700		
Labour					
Unskilled Labour	1	2	3		
Hours (5,500 x 4)	22000	22000	22000		
Rate by 10%	22	24.2	26.62		
Total	484,000	532,400	585,640		
GRAND TOTAL	**1,254,000**	**1,379,400**	**1,517,340**		
Lost contribution on labour:					
Hours	7000				

rate	150				
Total	**1,050,000**				
Additional Labour costs					
Hours	6000				
Rate (50% x 20 x1.1)	11				
Total	**66,000**				
4. Capital Allowances					
Year	WDV	CA@25%	Tax savings@30 %	Year Aval	
1	1,500,000	375,000	112,500	2	
2	1,125,000	281,250	84,375	3	
3	843,750				
Less Scrap value	500,000				
Balancing allowance	343,750	343,750	103,125	4	

Proposal Two

Year	1	2	3	4	5
	K'm	**K'm**	**K'm**	**K'm**	**K'm**
Cash flow- G-Ring	25	31	40	45	82
Cash flow-HB Ltd	12	15	21	23	89
Synergistic benefits	19	19	19	19	19
Taxable cash flows	**56**	**65**	**80**	**87**	**190**
Tax@30%	(16.80)	(19.50)	(24.00)	(26.10)	(57.00)
Net Cash Flow	**39.20**	**45.50**	**56.00**	**60.90**	**133.00**
Discount@13%	0.885	0.783	0.693	0.613	0.543
Present Value	34.69	35.63	38.81	37.33	72.22
Company Value	**218.68**				

Combined capital structure:

	K'm
Debt	90
Equity	128.68
Total	218.68

Possible loss of value= K128.68m – K180m =K51.32m

New asset β of enlarged company:

(weight β's by market values) (0.85 × 180/245) + (1.2 × 65/245) = 0.942

Equity β of enlarged company:

Ba=Be x Ve/Ve+Vd(1-t)
0.942 = Be x 180/180+90(1-0.3)
Be=1.27

Cost of equity = 6% + 1.27(14%-6%)=16.16%
Cost of debt = 9% x (1-0.3) =6.3%

WACC = (16.16% x 180/270) + (6.3% x 90/270) = 13%

SOLUTION TWO
Part a

COP dividends;

AF (152.1 x 40%)	K60.84
ECO (4.2 X 40%)	K1.68
AM (9.1 C 40%)	K3.64
CHM (1,746.5 – 525) X 40% X 80% =	K390.88

Total dividends = K457.04m

Part b

CHM	**AF**	**ECO**	**AM**	
Profit for the year	1,746.5	44.1	4.2	9.1
Add: Depreciation	650	15	9	10
Less: Reinvestments	(1,000)	(65)	(5)	(6)
Free cash flow	1,396.5	(5.9)	8.2	13.1
Dividend@40	558.6	-	3.28	5.24
COP dividends	446.88	-	3.28	5.24

Total dividends; K455.1

Part c COP Dividend Policy

COP seems to be focusing on dividend as the only source of financing for its operations and investments. This seems to be why the holding company doubled its payout ratio from 20% to 40%. The holding company is need of financing for its many projects and operations. The policy based on 40% of profit is a proportional policy, meaning, COP is subject to dividend fluctuations depending on the performance of the companies with its portfolio. It is also important to note that COP has applied the 40% across its business units within the portfolio regardless on the sector of the business. This might not be suitable for all businesses. For example, one contributing factor to increasing the dividend policy was the copper price increase, which is as a result of CHM group performing well and able to declare high profits for dividends. However, COP's application of this high dividend to say AF that seems to be investing more would not be suitable.

COP would be seen to impose the dividend policy on its business units, as opposed to the boards of each unit determining and declaring the dividends payable to the holding company. However, group policy could also be subject to and influenced by the parent company's policies. It therefore could be assumed that the parent company's board did sit and declare resolved on the said dividend policy. If this was the case, then matters of investments and financing within the COP group should be considered by the board of the parent company.

In conclusion, dividend is a not a sure source of income, as it is dependent on company performance and directors' discretion. Therefore, COP is continued reliance on dividends for operations might not be sustainable.

SOLUTION THREE

Part a)

The risk to the company is that the Kwacha weakens or RMB strengthens over the 4 months period. The company could, Do nothing and wait for 4 months, hedge using forward contracts or create a hedge on the money market.

Do nothing and wait

Using the expectancy theory, the 4 months rate has been calculated based on the 4 months mid rates;

K1.3320 x 1.0633/1.04 = K1.362

Amount in Kwacha; 1,456,000 RMB x 1.362 = K1,983,072

This amount is not certain, therefore the risk has not been managed. The assumption is that the Kwacha will weaken against the RMB, so using the higher rates of 30% and 15% could also give an estimate of the rate in 4 months.

Using forward contracts

Relevant rate in 4 months; K1.332 + K0.315 = K1.647

Amount in Kwacha; 1,456,000 x 1.647 = K2,398,032

The discount quoted by the ZAMCO is quite high, possible the bank could have also factored in costs. However, exchange rates are very volatile, so that bank would like cover even the worst movement. The forward contract will surely cover the uncertainty and all the risk in the exchange rate as the company will know with certainty the amount of kwachas needed in 4 months to make the payment.

Using Money market

The hedge is based on the company borrowing Kwacha equivalent to buy the RMB now and put the RMB in an RMB investment account which will earn some interest and therefore reduce the cost of the transaction.

Kwacha needed; 1,456,000 x 1.3320 = K1,939,392. Interest charged on the amount borrowed for 4 months would be; 30% x 4/12 x K1,939,392 = K193,939. Total cost interest plus principle is K2,133,331

Since the company has 1,456,000 RMB now, this money can be put in an interest earning account for 4 months. 1,456,000 x 9% x 4/12 = 43,680 RMB. This interest is earned after months. The relevant rate in for months' time has not been provided, but assuming the spot of K1.2850 (taking a cautious rate), the interest in kwacha would be 43,680 RMB x 1.2850 = K56,129

Therefore the overall cost would be; K2,133,331 – 56,129 = K2,072,202

Recommendation

Based on financial grounds doing nothing seems to be the cheaper option, but this still leaves the company subject to risk. Therefore, of the two risk management techniques, the money market is a better option.

Part b)

The alternative perspectives, as stated in the question, on the benefits versus the dangers of derivatives simply reflect the fact that these instruments can be used in a variety of ways.

Derivatives are valuable tools for managing risk when they are used to hedge positions in linked, underlying assets. Conversely, derivatives may increase risk when they are used speculatively for trading purposes. In order for markets to function, both parties are essential because the hedgers and speculators perform complementary roles.

The description of derivatives as a "time bomb" is one investor's view on the dangers of speculation. The very nature of derivatives contracts means that any investments in them are highly leveraged, so that movements in the price of the derivatives are proportionally much greater than those in the underlying asset. To investors who are looking to use limited supplies of cash in the most effective way, this is a major element in the appeal of instruments such as equity options rather than the equities themselves: the potential profit or loss per Kwachas invested is geared upwards. Consequently the percentage returns are potentially much higher on derivatives than on the underlying assets/liabilities, and at the same time the level of investment required may be much smaller.

The quote also reflects the views of great investors, and their recognition of the problems of current accounting and disclosure practice relating to derivatives. Even with Financial Accounting Standards in the United States of America, IFRS 9 as the International Financial Reporting Standard, and the introduction of fair value accounting, it remains difficult for any but the most sophisticated analysts to understand the risks that are being incurred by derivatives use within companies.

The nominal value of derivatives contracts does not reflect the cash flow risks associated with them, particularly in the case of options contracts – hence the introduction of fair value accounting – but even when contracts are put into the balance sheet at fair value, their price volatility still means that the reported value does not fully reflect the associated risks. This price volatility also makes it very difficult for investors to forecast the profit that may be generated by a company holding a large portfolio of derivative financial instruments.

It is this uncertainty which stimulates the use of the phrase time bomb, because it is impossible to forecast if and when something may go wrong, and even experienced speculators can make mistakes. The cases of Procter and Gamble and Gibson's Greetings are examples that clearly illustrate this difficulty. In the case of banks and financial institutions, identifying the profit from trading, excluding commissions and other extraneous items, is very difficult indeed, and so investors remain uncertain about the quality of the trading decisions being made. In the absence of good quality information, it is therefore understandable that many people agree that derivatives really are a "time bomb" waiting to explode.

The converse opinion, held by many corporate treasurers, is that derivatives offer a mechanism for hedging a whole range of risks, from commodity prices through to interest rates or exchange rates. Although a perfect hedge may not always be possible, such contracts still serve to drastically reduce a company's exposure to price movements, and hence reduce both cash flow and profit risk. The concept of hedge accounting means that financial accounting for derivatives reflects the managerial use to which they are put, so that trading assets/liabilities are recognized and measured in a different way to those used for hedging purposes.

Where a Treasury operates as a cost centre as opposed to a profit centre, the primary way in which derivatives will be used is for hedging rather than speculation, and a company's position in this regard is often made explicit in its annual report. The line between hedging and speculation is not always easy to draw in practice, however, so there may be some false sense of security provided by reading a statement such as "the company does not use derivative instruments for speculation."

SOLUTION FOUR

It is always good to work systematically through such questions. Determine from the information the possible ways of calculating the value of the company; the possible methods in this case include;

Asset based, Earnings based, Dividend based and cash flow based

The detailed calculations will make the annex to the report

REPORT

TO

FROM DATE

SUBJECT: Valuation of CEC for possible acquisition

Introduction

The directors and shareholders of CEC have received a firm offer from Zambian Transmission to buy all the shares of CEC for a price K2.829 per share. Following this offer, the Board of CEC requested for an independent valuation of CEC. This report outlines the various valuation methods used and provides a recommendation. For detailed calculations see the annex to this report.

Valuation methods

Asset valuations

The asset values in the balance sheet are historical and are not usually reliable estimates of the current market values. In addition, intangible assets such as inherent goodwill are not recorded.

Where realisable values can be found, it will give the lowest price a vendor will accept, even if he is desperate to sell, as he could break the entity up himself and sell off the assets.

The value of the entity is based upon the value of the net assets in its financial statements. A problem of this valuation is on what basis to value the net assets. The following basis can be considered:

⊙ Realisable value – this would only be sensible if the company was about to be wound up

⊙ Replacement value – this would be more sensible from the point of view of another company considering making an offer for the shares in our company. However, it would be ignoring the value of any goodwill.

⊙ Book value – this is normally of little relevance, since the book values of assets are unlikely to even approximate to the actual values.

Further issues are the value of intangibles that may not be recognised in the financial statements and contingent liabilities that are not recognised either. If the values of both are included, it will impact the value of the net assets.

This valuation method is the minimum value of an entity but can be an appropriate valuation technique for a capital intensive business

Intellectual capital

Intellectual capital forms a major part of the value of many entities. However, it is difficult to measure separately, and is often viewed as the difference between an income based valuation (or current market value) and the book value of the assets. Alternatively, calculate the present value of the excess returns over the industry average.

Present value of future cash flows

In an ideal world the value of a business should be the present value of the cash flows it generates. However, predicting all of the future cash flows and finding a suitable discount rate is fraught with difficulties and potential buyers will have different estimates both from each other and from the vendor.

The cash flows will also vary with the different plans each has for the business.

The valuation techniques used are all approximations to this, but will often lead to very different results, allowing for a negotiated price.

The free cash flow is the cash available for distribution to lenders and shareholders. It can be calculated from accounting information as follows:

Profit before interest and tax (operating profit)	X
Add: Depreciation (non-cash)	X
Less: Investment in non-current assets	(X)
Less: Investment in working capital	(X)
Less: Tax	(X)
FREE CASH FLOW	**X**

The value of the business can then be found by discounting the free cash flows at the weighted average cost of capital, and the value of equity is then found by deducting the value of debt.

The free cash flow to equity is the cash available for distribution to shareholders, taking into account the free cash flows after payment of interest to the debt holders.

The value of equity is then calculated by discounting the free cash flows to equity at the cost of equity.

Price/earnings ratio

Value per share = EPS x P/E ratio.

For a private company this can be a useful technique as the P/E ratio of similar listed entities can be applied to its EPS to arrive at the approximate value it would have if it was quoted. This is often discounted substantially for the lack of liquidity, and hence additional risk, in its shares.

Dividend valuation model

$$P_0 = \frac{d_1}{k_e - g} \quad \text{if we assume constant growth in dividen}$$

Or

$$P_0 \text{ (ex-div)} = \frac{D_0 (1 + g)}{(k_e - g)}$$

where:

D_0 = the current dividend

k_e = the shareholder's required rate of return

g = the expected rate of growth in dividends

In a private entity, dividends can be more haphazard as owners are also rewarded through salaries. Adjustments may be needed to alter salaries to market rates before using 'potential' dividends. The cost of equity can be estimated from CAPM using the beta of similar listed entities.

Dividend yield

$$\text{Value} = \frac{\text{Dividend}}{\text{Dividend yield}}$$

An average dividend yield for a similar listed sector can be applied to the target entity's dividend.

Limitations of the dividend valuation model

Although expected future dividends and the shareholders required rate of return certainly do impact upon the market value of shares, it would be unrealistic to expect the theory to work perfectly in practice.

Main reasons for this include:

⊙ The stock exchange is not perfectly efficient, and therefore the market value of a share may be distorted from day-to-day by factors such as rumors about a takeover bid.

⊙ In practice, market values do not change instantly on changes in expectations – the speed at which the market value changes depends on the volume of business in the share.

⊙ The model only deals with constant growth in dividends. In practice this may not be the case. However, do appreciate that the growth used in the model is the future growth that shareholders are expecting – this is perhaps more likely to be at a constant rate.

The big problem is determining the rate of growth that shareholders expect! It is clearly impossible to ask them and to any estimate that we make for our calculations is only an estimate and course be completely different from the rate of growth that shareholders are in fact expecting.

CEC Bid

From the detailed calculations, the range of values for CEC is 1.43 per share to K2.34 per share. The offer is K2.829 per share, which is at a premium of 20.9% compared to the upper valuation of K2.34 per share. This is likely to be attractive to the shareholders of CEC.

Recommendations

Considering that shareholders wish to realise their value, the offer by Zambian Transmission is an attractive one and should be considered. However, there usually a number of uncertainties that surround takeovers, in particular management's concern for job security. Therefore, during the upcoming board meeting, it would be important to address the matters of job security in the event the acquisition takes place.

Annex to report - Detailed calculation

Asset based

Net assets; K619,960 - K269,050 = K350,910 x K9.7614 = K3,425,372.874

Per share value; K3,425,372,874/1,625,000,597 = K2.11 per share

Earnings based

Earnings x P/E ratio; K48,378 x 4.92 = K238,019.76 x K9.7614 = K2,323,406.085

Per share value; K2,323,406,085/1,625,000597 = K1.43 per share

Dividend based

Using the dividend yield; K21,000,000/0.0875 = K240,000,000 x K9.7614 = K2,342,736,000

Per share value; K2,342,736,000/1,625,000,597 = K1.44 per share

Using the dividend growth model; ROE = K48,378/K350,910 x 100 = 13.8%

G = br; (K48,378 – K21,000)/K48,378 x 13.8% = 7.81%

Valuation = (K21,000(1.0781))/(0.138 – 0.0781) = K377,964.942 x K9.7614/1,625,000,597 = K2.27 per share

Cash flow based

2017	2018	2019	2020	
Cash flows	K22,528	K24,736	K27,160	(K27,160(1.0781))/(0.138 – 0.0781)
D.f@13.8%	0.879	0.772	0.678	0.678
PV	K19,802.11	K19,096.19	K18,414.48	K331,429.90

Total PV K388,742.68 X K9.7614 = K3,794,672,277/1,625,000,597

Per share value; K2.34 per share

Summary range of value

K1.43 – K2.34 per share

SOLUTION FIVE

a) Considering that the firm has a debt ration slightly below the average for the industry is a sign that its financial risk is lower than that of the industry. Therefore, the returns of the company would be subject to lower volatility. However, if the company announces intention to taken on significant debt, would surely lead to a debt ratio being higher than the industry and as a result be seen to be of a higher risk. The following would be my investment advice depending on the if that;

1. Static trade-off theory

With this theory, the investor will be considering the trade-off between using debt or equity finance. The decision will be made based on the amount of debt that minimises the cost of capital. Therefore, there is an optimal amount of debt that the firm should have and maintain in order to get the maximum value.

2. Agency theory

The agency theory is based on the assumption that directors of the firm are agents on the principles who in this case are the shareholders. The agents are assumed to make decisions that will increase the wealth of the shareholders. Therefore if getting debt increases the value to the shareholders, then following this theory, more debt would be preferred to equity, for as long as the shareholding is not diluted.

3. Signalling theory

This theory is based on the assumption that the value of the firm will be influenced by the information that investors have over the firm. If the information is positive, they may be attracted to invest, therefore increasing the value of that firm. In the case of firm Z, if information on the use of the debt is positive, the value would go up thereby making the stock increase in value, but if the information is negative, the stock would decrease in value.

4. Pecking-order theory

This theory is based on the transactions costs related to issuance of the capital. Managers will be considering the source of capital that reduces the costs of financing. Normally, the use of equity through retained earnings is considered to be cheap as there are no immediate costs of issuing this capital. However, in the case firm Z, issuing debt has cost implications which would make it expensive, and thereby seen as the interest of investors in not protected.

b) Value of firm Z

Value of a levered firm = value of unlevered firm + total tax saving on debt

EBIT	1,000,000
Interest (10% x 200,000)	(20,000)
EBT	980,000

Tax (37% x 980,000) (362,600)

Earnings after tax 617,400

Value of unlevered firm = 617,400/0.13 = 4,749,231

Value of levered firm = 4,749,231 + (200,000 x 37%)

= 4,823,231

(c) According to MM proposition 1 with tax, the value of the firm is enhanced by taking up more debt, while the WACC reduces. Therefore, in the case of firm Z, the value of the firm could be altered by changing the debt ratio. Since debt is considered as a cheaper source of finance in that the firm benefits from tax savings, the overall cost to the firm reduces by having more of debt in the capital structure. However, MM ignored distress costs and also the fact that the cost of debt is likely to increase as the firm takes up more debt, as a result, the WACC would start to increase and company value goes down. With the consideration of distress costs, firm Z should not continuously take on debt, but rather determine the optimal amount of debt that minimises the WACC and maximises the firm value.

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.7: PUBLIC SECTOR AUDITS AND ASSURANCE

FRIDAY 13 DECEMBER 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

Procurement of Drugs and Other Medical Supplies

The Independent Public Audit Office is aware of widespread concern in government and the general public about the condition of drugs and other medical supplies in public health facilities. It was reported that people were dying of treatable diseases such as malaria because of lack of medicines in public health facilities. At the same time drugs worth billions of Kwacha expire in the Central Medical Stores, two regional medical stores, stores of referral hospitals, district health offices and other health facilities.

The Independent Public Audit Office intends to carry out a financial audit of the Central Medical Stores (CMS) for the year-ended 31 December 2016, but has also decided to conduct a compliance audit into procurement procedures for the drugs and other medical supplies. The objective of the compliance audit is to establish whether procurement procedures were followed in the awarding of contracts for the supply of drugs and other medical supplies.

Procurement procedures should follow the requirements of the Public Procurement Regulations. Some of the regulations, as they apply to drugs and other medical supplies contracts, are summarised below:

1. There should be a procurement plan for the awarding of contracts, and their estimated cost.
2. For all contracts above a specified threshold, there should be a competitive bidding process.
3. Invitations to tender, and the subsequent contract when agreed, must include full detailed specifications of the requirements. In the case of drugs and other medical supplies, the specifications should meet recognised international quality standards.
4. Companies that are awarded contracts must have the capacity and capability to perform them.

Management and Supply of Drugs

During the process of obtaining an understanding of the audited entity, the audit team has discovered that in Regional offices of the CMS, there is no segregation of duties between the stores and accounting functions. Accounting officers are responsible for payments for stores items, and receipts and issues of stores items. The audit team is aware of the absence of some documentation for award of procurement contracts and related contracts.

There have been accusations in the media of widespread corruption in the management of drugs and other medical supplies, and calls for a forensic audit into the alleged corruption. The Independent Public Audit Office has chosen not to carry out a forensic audit.

Distribution of Drugs

The Independent Public Audit Office is planning a performance audit on the distribution of drugs and other medical supplies, which are the primary responsibility of the CMS. The objective of the audit is to assess whether the CMS was carrying out its operations efficiently leading to continuous, uninterrupted and adequate supply of drugs and medical supplies to all health facilities.

The performance audit objectives have been expressed in five questions:

1. To what extent is the delivery of drugs and medical supplies by the CMS meeting the needs of health facilities?

2. To what extent is the distribution of drugs and medical supplies done in order to secure continuous, uninterrupted and adequate supply to the health facilities?

3. To what extent is the CMS storing and distribution drugs efficiently?

4. To what extent are drugs and medical supplies properly managed at health facilities?

5. To what extent is the CMS well managed ensuring a good financial situation and internal control?

An initial assessment of the CMS distribution show that in a number of cases it did not supply drugs to public health institutions' needs according to their orders and did not fulfill its obligation to supply drugs to all public health facilities.

Inventory management systems

The CMS operates a manual inventory management system. Administratively the regional medical stores do not have any links with the CMS. The relationship between them is that of a supplier and a customer. The CMS distributes drugs and other medical supplies to the two regional medical stores, all district hospitals, and local hospital and clinics, while the two regional medical stores and district hospitals are responsible for distributing to other health facilities.

The health facilities are required to order products from CMS every six weeks, and it usually takes the CMS about four weeks to process and execute the order. An initial assessment of CMS distribution showed, however, that stock records were not adequately maintained and physical inventory counts did not correspond with stock records.

The CMS wishes to computerize its inventory management system so that it provides an accurate statement of stock record on hand at any point in time. The inventory management system will ensure that inventory is available to meet the needs of ongoing activities and that excessive or insufficient stock levels are avoided. The CMS has decided to outsource the design and development of a new inventory management system, to a commercial software developer. You are part of the audit team which has been tasked with assessing the adequacy of controls over the outsourcing arrangement.

Required:

(a) Explain the objectives and benefits of auditing in the public sector. (6 marks)

(b) Describe the audit procedures to perform and establish whether contract agreements were administered in accordance with the contract agreement for the supply of drugs and other medical supplies. (8 marks)

(c) Explain how the absence of documentation affects audit risk, and suggest measures that should be taken in conducting the audit to obtain sufficient appropriate evidence for reaching an audit opinion. (8 marks)

(d) Identify and explain the risk of fraud in accounting and stores management at the Regional offices of the CMS. (5 marks)

(e) Explain how you can obtain sufficient appropriate audit evidence to reach conclusions in answering the questions outlined in the performance audit objectives.

(6 marks)

(f) Describe the controls that you would expect to be in place over the outsourced inventory management system. (7 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this section. Attempt any THREE (3) questions.

QUESTION TWO

You are an audit team leader at the Independent Public Audit Office undertaking an external audit of the financial statements of the Lusaka Park District Hospital. Your audit manager has reminded you of the requirement of ISSAI 1315, which requires the auditor to perform risk assessment procedures to provide a basis for identifying and assessing the risk of material misstatement. These risk assessment procedures should include appropriate analytical procedures.

As part of your planning you are designing some analytical procedures to perform prior to the first visit to the hospital to begin the on-site audit. Currently, your focus is on the revenue and costs from providing surgical services. This area is particularly closely regulated by the Ministry responsible for health and the focus of ever more stringent efficiency requirements.

Your audit objectives in this area include the following:

1. To verify that all the relevant costs of the provision of surgical procedures have been included in the financial statements;
2. To verify that the hospital's costs of providing surgical services are sustainable in the context of the fees charged for providing the different types of surgical procedure; and
3. To verify that appropriate management control has been exercised over the costs of the provision of surgical procedures.

You are aware, that forming an audit opinion and preparing the auditor's report is the culmination of the work done during a financial audit. ISSAI 1700, *Forming an Opinion and Reporting on Financial Statements,* contains a number of requirements that must be met before an unmodified opinion on the financial statements may be issued.

Required:

(a) Suggest reasons why it is often considered appropriate in the public sector to combine financial audits of financial statements with compliance audits or an evaluation of internal controls weaknesses. (4 marks)

(b) Explain why ISSAI 1320, *Materiality in Planning and Performing an Audit*, makes a distinction between planning and performance materiality. (4 marks)

(c) Formulate and describe an appropriate analytical procedure to meet each of the audit objectives listed above, clearly explaining what further action you would take after undertaking the procedure. (8 marks)

(d) Briefly describe the areas auditors are required to consider under ISSAI 1700. (4 marks)

[Total: 20 marks]

QUESTION THREE

Copper Street Ltd is a firm that owns and operates a copper mine in North Western Province. They operate under a license from the Mining Safety Department, which monitors the environmental impact of the mining industry and requires all licensed mines to be operated in compliance with strict health and safety regulations.

You are the audit manager at the public audit firm responsible for the audit of Copper Street Ltd. During the period under review, there was an accident at the mine where several hundred tonnes of rock collapsed, and this in turn caused tunnels to flood. One quarter of the mine cannot be accessed and for safety reasons the affected tunnels will be permanently closed. The management of Copper Street Ltd feel they can continue to operate in the rest of the mine as long as they make some health and safety improvements to ensure they comply with Mining regulations.

One miner was killed in the incident and three are in intensive care in hospital. The tunnel collapse caused excessive damage to several houses near the mine. A surveyor is examining the properties damaged to see if they can be repaired or must be demolished and rebuilt. In the meantime, fifty residents have been moved to hotel accommodation in the next town and Copper Street Ltd is paying for this. There are no known relatives of the miner who died. Copper Street Ltd did not report the incident to the Mining Safety Department.

Required:

(a) Describe the objectives of a compliance audit. (5 marks)

(b) Explain the elements of public sector auditing, and suggest which type of engagement would be appropriate for the audit of Copper Street Ltd. (6 marks)

(c) Describe the audit evidence which you should expect to find, when undertaking a compliance audit of Copper Street Ltd, with reference to the matters described above. (5 marks)

(d) Discuss the implications of the incidents described with regard to management integrity, and comment on any ethical matters arising. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

The Independent Public Audit Office has completed the audit of the procurement system at the Ministry responsible for Health, after previous audits revealed wastages of medicines and loss of funds within the Ministry and other irregularities.

These irregularities related to overpayments for goods paid for, but not supplied, unauthorized purchases, circumventing of laid down rules and non-transparent purchasing procedures.

The audit found that the Ministry does not collect appropriate data to procure the right type and quantities of drugs to meet customer requirements. The Ministry, in a number of cases, did not supply drugs to public health units' needs according to their orders and could not fulfil its obligation to supply drugs to all public health units. Furthermore, it procured drugs without taking into regard buffer stock levels. As a consequence, it stocked drugs in excess of the one year's requirement while others are under stocked. As a result Ministry also has huge stocks of expired drugs within their stores.

Required:

(a) Describe the purpose of public sector audits and explain the importance of transparency and accountability in the context of reported irregularities. (6 marks)

(b) Explain the possible audit objective and propose the approach that could be undertaken in an audit of procurement of drugs in the Ministry. (5 marks)

(c) Explain how the principles of economy, efficiency and effectiveness can be used in carrying out a performance audit of procurement of drugs. (9 marks)

[Total: 20 marks]

QUESTION FIVE

Builders Enterprise Ltd (BEL) a major infrastructure company was awarded a road construction contract by the Ministry responsible for Health under the Poverty Reduction programme to construct Rural Health Centers across the Country.

The ministry has publicized a whistle blower policy and received a complaint from one of the bidders about possible collusion between certain bidders. Similar irregularities were also observed during the tendering process, where the managing director of Builders Enterprise Ltd, together with other BEL board members, were frequently seen entertaining senior government officials at lavish hotels. There are also rumors of large cash payments having been made. Comments have been made on social media, seemingly by a rival construction company that suggest that BEL offered bribes in order to secure the contract.

The Independent Public Audit Office has commenced an investigation of the fraudulent activities at the Ministry. Through the use of state-of-the-art data analytics and/or data mining, they have discovered several hundred thousand dollars per year worth of fraudulent activity relating to questionable procurement and contract transactions at the Ministry involving construction projects.

Required:

(a) Explain why the use of data analytics or data mining is an important part of many forensic investigations. (3 marks)

(b) Explain the features of a forensic audit that distinguishes it from other types of audits. (6 marks)

(c) Briefly describe the key stages in a forensic investigation of the fraudulent activities at the Ministry. (6 marks)

(d) Recommend the procedures to be used in performing a forensic investigation on the alleged bribery payments made by BEL. (5 marks)

[Total: 20 Marks]

END OF PAPER

CA3.7 SUGGESTED SOLUTIONS

SOLUTION ONE

a) The objective and benefits of auditing in Public Sector

The objective of public sector audits is to enhance transparency and accountability in the collection of revenues and in the use of public money and other resources, by providing independent third party assurance. Audits promote accountability and value for money in the management of public funds.

Auditing in the public sector contributes to the process of holding management of public sector entities to account, to ensure that entities report their financial affairs reliably, and that programmes and other activities in the public sector are performed in accordance with applicable laws and regulations, and in an economic, efficient and effective manner.

The benefits of auditing in the public sector is that the auditors assist the decision – makers in exercising oversight by evaluating whether public sector entities are doing what they are supposed to do, spending funds for the intended purpose, and complying with laws and regulations.

Audits focusing on oversight answer the question, 'has the policy been implemented as intended?' and 'Are managers implementing effective controls to minimize risks?'

Auditing supports the governance structure by verifying agencies 'and programs' reports of financial and programmatic performance and by testing their adherence to the organisation's rules and aims.

Moreover, oversight audits contribute to public accountability by providing access to performance information to stakeholders within and outside of the organisation under audit.

Elected and appointed officials as well as public sector managers are responsible for setting direction and defining organizational objectives. In addition, managers have the duty to assess risks and establish effective controls to achieve objectives and avert risks. In their oversight role, government auditors assess and report on the success of these efforts.

Oversight also describes the role many public sector have to detect and deter public corruption, including fraud, waste or abuse, and other misuse of the power and resources entrusted to government officials.

Auditors also monitor the effectiveness of management's internal control structure to identify and reduce the conditions that breed corruption.

b) Contract agreement compliance audit procedures:

The purpose of a compliance audit is to assess whether activities, financial transactions and information for an audited public sector entity are, in all material respects, in accordance with the authorities that govern the entity. 'Authorities' may be rules, laws and regulations, established policy, agreed codes of conduct, budgetary decisions, and so on.

The compliance audit may investigate a sample of construction contracts performed over a given period of time, or may investigate 100% of contracts.

For each contract, the audit team will carry out the following procedures:

- Obtain a procurement plan and ensure it including the estimated costs;
- Review the invitations to tender and check whether they contained sufficiently detailed specifications for the required work and that these detailed specifications conform to established standards;
- Discuss with management for a competitive bidding process, and check whether there were sufficient number of bidders, and that all bidders were eligible for the award of the contract;
- Check whether the contract was awarded to the successful bidder for demonstrable reasons, such as submitting the lowest-cost bid;
- Check whether the successful bidder has the necessary competence to carry out the work within the required time and to the other detailed contract specifications
- Review the contracts awarded to ensure it contains sufficient detailed specifications for the required quality of medicines and drugs, and that these detailed specifications conformed to established standards;
- Check whether the suppliers that are awarded contracts have the capacity and capability to perform them.
- Check the reasonableness of amount of the medicines and drugs procured against any advancement payment made;
- Agree the progress payments of thesuppliersto the contract agreement; for example quantities of medicines and drugs payments should be made only against supplied quantities;
- Agreed contract prices and the final total amounts paid to the suppliers, to check that total amount paid match the agreed contract price.

c) **The absence of documentation affecting the audit risk, and measures taken in conducting the audit:**

Audit risk is the risk of material misstatement in the financial statements (due to inherent risk or control risk) and failure by the auditor to detect misstatements (detection risk). When it is known that some documents are not available for inspection, the possibility of material misstatements due to inherent risk and inadequate controls is greater. It also makes the task of the auditor to detect misstatements more difficult. Audit risk is therefore greater, depending on the extent to which documents are not available.

Since audit risk is greater, the auditors will need to carry out more extensive investigations to obtain sufficient appropriate evidence to reach an audit opinion. They will also need to rely on documentary evidence that is available, and on other sources of evidence.
If the audit team uses sampling to obtain evidence, the size of the sample may need to be increased substantially.

Tests of internal controls may need to rely much more on inquiries of relevant management and employees, where documentary evidence is not available.

Some inspection of documents should be achievable. For example, there ought to be a contract document for all procurement contracts undertaken, and reliable records of payments made to suppliers of medicines and drugs. The lack of documentation may be restricted to certain aspects of the CMS's operations, such as procurement work; other records, such as suppliers' statements, may be complete and reliable.

More extensive observations may be required, to check whether drugs and medicines that are reported as supplies have actually been carried out and completed. Interviews with key staff involved in the procurement process can be conducted to establish as to whether the drugs and medicines ordered were supplied.

Analytical procedures might be used, for example to compare the cost of procurement with costs in previous years or in other regions or countries.

The audit team may also be able to use results of investigations by the compliance audit team, to assess whether procurement procedures have been followed, and so whether reported results may be reliable.

Written representations can be obtained from external suppliers, to confirm payments made and outstanding amounts payable. However, there may be some risk of fraud, and the auditor will need to consider the reliability of representations received.

If the audit team cannot obtain sufficient appropriate evidence for an unmodified opinion, the auditor's report will contain a qualified or disclaimer opinion.

d) Risk of fraud in accounting and stores management at the Regional offices:
Fraud may take the form of fraudulent financial reporting or misappropriation of assets (ISSAI1240). Misappropriation of assets there mayoccur in small immaterial amounts but frequently; therefore there may be a risk of a material misstatement due to fraud in the Regional offices.

Fraud is more likely to occur when there are pressures on management, or when there are opportunities for fraudulent activities, or when attitudes encourage or tolerate fraud. It is possible that there is a tolerance for petty theft in the Regional offices, but the greatest risk comes from opportunity, due to the failure to segregate accounting functions from stores management functions.

Accounting officers in the Regional offices are responsible for receipts into stores, issues from stores and general management of stores. They are also responsible for accounting for receipts and issues, and make payments to suppliers.

Failure to segregate duties combine with un maintenance of stores and un performance of inventory counts means that they are opportunities for over paying CMS for goods received or pay for the drugs and medical supplies which are not delivered. Employees could also steal the drugs and medical supplies and sell privately.

The risk of fraud can be reduced by system improvement e.g. effective segregate of duties between accounting staff and stores personnel.

e) Sufficient appropriate audit evidence to reach conclusions in answer to the questions in the performance audit objectives:
Given the qualitative nature of many of the questions, providing an answer is not easily subject to measurement, and judgement will be required. In answer to most of the questions, the auditor will rely to a large extent on inquiry (of management and employees) and written confirmations by management.

Other sources of information are indicated below.

- **To what extent is the delivery of drugs and medical supplies by CMS meeting the needs of health facilities?**

  Inspection of CMS annual reports and annual work plans, for information about the quantities of drugs and medicines supplied against the needs of the health facilities. Inspection of communications or correspondences between the CMS and the regional offices, for information about quantities of drugs and medicines supplied against the needs of the health facilities.

- **To what extent is the distribution of drugs and medical supplies done in order to secure continuous, uninterrupted and adequate supply to the health facilities?**

  Inspection of CMS annual reports and the Good Received Notes for the distribution and delivery of drugs and medicines to the health facilities.

- **To what extent is the CMS storing and distributing of drugs efficiently?**

  Inspection of CMS annual reports and the Good Received Notes

Check the receipts and issues of drugs and medicines, distribution schedules or sheets of stores itemsto ensure that the drugs and medicines are stored, distributed and boarded off efficiently.

- **To what extent are drugs and medical supplies properly managed at health facilities?**

  Inspection of annual reports, financial record and documents on internal control systems.

- **To what extent is the CMS well managed ensuring a good financial situation and internal control?**

  Inspection of CMS annual reports and financial records, documents on internal control system for information on the financial position and adequacy of the internal control system.

f) The controls that would you expect to be in place over this outsourced inventory management system

The following some of controls that would be expected over the outsourced inventory management system:

- Specification of requirements for new system agreed at appropriate level
- Perform due diligence to assess the competence and resources of developer
- Assess developer's systems and quality management processes
- Incorporate testing requirements in contract with developer
- Carry out legal review of contract to ensure enforceability
- Value for money established through tendering or benchmarking process
- Progress monitored against agreed delivery stages with regular progress meetings
- Modification to agreed specification authorised at appropriate level and documented
- Ensure access of developer's staff to the CMS's systems is controlled and logged
- Provision of full system documentation by third party developer
- Test running of system and rectification of faults before going live
- Adequate training of CMS's staff on the new system
- Post implementation review

SOLUTION TWO

a) **Reasons to combining financial audits of financial statements with compliance audits or an evaluation of internal controls weaknesses:**
The overall objective of a financial audit is to provide an opinion on whether the audited financial statements present a true and fair view of the audited entity's financial transactions and position.

The overall objective of a compliance audit carried out in connection with an audit of financial statements is to obtain reasonable assurance about whether the activities, financial transactions and information reflected in the financial statements are, in all material respects, in compliance with the authorities (e.g. laws and regulations) which govern them.

Both types of audit may require a similar understanding of the audited entity, as part of the audit planning process, and both are likely to require similar audit evidence, or at least audit evidence from the same sources. Combining both types of audit in a single engagement will therefore be an efficient use of available audit resources (manpower and time, in particular).

The preparation of financial records and statements in the public sector may be of a poor standard, and financial audits may sometimes lead to a qualified or even an adverse opinion in the auditor's report. When providing a modified opinion, the auditor should be able to recommend corrective action that might be taken. In a compliance audit, the auditor should identify and report deviations from the audit criteria, so that corrective actions can be taken, and those responsible are held accountable. In this way, the recommendations in a compliance auditmay complement the opinion in the auditor's report for a financial audit.

b) **Materiality in Planning and Performing an Audit, distinction between planning and performance materiality:**
Performance materiality is defined as the 'amount or amounts set by the auditor at less than materiality for the financial statements as a whole to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality for the financial statements as a whole'.

This means that several misstatements, each below a materiality threshold, could add up to one that is above such a threshold. The auditor must thus plan such that they are likely, when performing the audit, to identity such multiple, smaller misstatements bysetting 'performance materiality' somewhat lower.

c) **Analytical procedure to meet each of the audit objectives in the question:**
The following are possible procedures, but other appropriate answers should receive credit:

i. A trend analysis of the total costs of the provision of surgical procedures with the cost in previous financial years. Any deviation from the trend may indicate errors in the allocation of costs and should be presented to management for them to provide explanations for the deviation. The persuasiveness of the explanations provided will help to determine the assessed risk to this objective and subsequent audit activity.

ii. Calculate the unit costs of the provision of each type of surgical procedure and compare with the fee paid for the delivery of the procedure. Although surpluses in one type of procedure can be used to offset deficits in the delivery of others, in the longer-term this will put pressure on the overall cost of delivery, particularly if the direction of movement on fees is downward. Trend analysis of costs and fees for different procedures would help to further assess sustainability in this area. Where problems are apparent, management should be asked to provide details of their action plans to address the problems.

iii. Expenditure on the provision of different types of procedure should be profiled over the year and compared with the hospital's budget for the procedures. Significant variances from budget may indicate problems in planning or cost control. Where variances occur, management should be asked to provide details of their analysis of the causes, and the action taken to bring actuals back into line with the budget, or to reallocate resources to meet requirements.

d) The areas auditors are required to consider under ISSAI 1700:
The areas that must be considered are as follows:

- The financial statements adequately disclose the significant accounting policies selected and applied.
- The accounting policies selected are consistent with applicable financial reporting framework and are appropriate.
- The accounting estimates made by management are reasonable.
- The information presented in the financial statements is relevant, reliable, comparable and understandable.
- The financial statements contain adequate disclosures to enable the intended users the effect of material transactions and events on the information conveyed in the financial statements.
- The terminology used in the financial statements, including the title of each financial statement, is appropriate.

SOLUTION THREE

a) Objectives of a compliance audit

The main objective of a compliance audit is to provide the intended user(s) with information about whether the audited entity is following parliamentary decisions, laws, legislation, established codes or agreed-upon procedures. These form the relevant authorities governing the subject matter of the audit. The relevant authorities are the sources of the audit criteria.

In general, the objectives of compliance audits in the public sector are to:

i. Gather sufficient appropriate audit evidence to conclude whether the information on a particular subject matter is in compliance, in all material respects, with a particular set of audit criteria, and
ii. Report the findings and conclusions to the legislature and/or other bodies (as appropriate).

The objectives and criteria for a compliance audit may include aspects of both regularity and propriety. A compliance audit may be an audit of regularity, propriety, or both.

Regularity is the concept that activities, transactions and information related to an audited entity are in accordance with legislation, regulations or agreements, including budgetary laws.

Propriety relates to general principles of sound public sector financial management and the conduct of public sector officials.

In a compliance audit, the auditor should identify and report deviations from the audit criteria, so that corrective actions can be taken, and those responsible are held accountable.

b) Elements of public sector auditing
Three separate parties

Public-sector audits involve at least three separate parties: the auditor, a responsible party and intended users. The relationship between the parties should be viewed within the context of the specific constitutional arrangements for each type of audit.

- **The auditor:** In public-sector auditing the role of auditor is fulfilled by the Head of the SAI and by persons to whom the task of conducting the audits is delegated. The overall responsibility for public-sector auditing remains as defined by the SAI's mandate.

- **The responsible party:** In public-sector auditing the relevant responsibilities are determined by constitutional or legislative arrangement. The responsible parties may be responsible for the subject matter information, for managing the subject matter or for addressing recommendations, and may be individuals or organisations.

- **Intended users:** The individuals, organisations or classes thereof for whom the auditor prepares the audit report. The intended users may be legislative or oversight bodies, those charged with governance or the general public.

- ***Subject matter***

  Subject matter refers to the information, condition or activity that is measured or evaluated against certain criteria. It can take many forms and have different characteristics depending on the audit objective. An appropriate subject matter is identifiable and capable of consistent evaluation or measurement against the criteria, such that it can be subjected to procedures for gathering sufficient and appropriate audit evidence to support the audit opinion or conclusion.

- ***Criteria***

The criteria are the benchmarks used to evaluate the subject matter. Each audit should have criteria suitable to the circumstances of that audit. In determining the suitability of criteria the auditor considers their relevance and understandability for the intended users, as well as their completeness, reliability and objectivity (neutrality, general acceptance and comparability with the criteria used in similar audits). The criteria used may depend on a range of factors, including the objectives and the type of audit. Criteria can be specific or more general, and may be drawn from various sources, including laws, regulations, standards, sound principles and best practices. They should be made available to the intended users to enable them to understand how the subject matter has been evaluated or measured.

- ***Subject matter information***

  Subject matter information refers to the outcome of evaluating or measuring the subject matter against the criteria. It can take many forms and have different characteristics depending on the audit objective and audit scope.

Types of engagement:
There are two types of engagement.

- In attestation engagements the responsible party measures the subject matter against the criteria and presents the subject matter information, on which the auditor then gathers sufficient and appropriate audit evidence to provide a reasonable basis for expressing a conclusion.

- In direct reporting engagements it is the auditor who measures or evaluates the subject matter against the criteria. The auditor selects the subject matter and criteria, taking into consideration risk and materiality. The outcome of measuring the subject matter against the criteria is presented in the audit report in the form of findings, conclusions, recommendations or an opinion. The audit of the subject matter may also provide new information, analyses or insights.

Financial audits are always attestation engagements, as they are based on financial information presented by the responsible party. Performance audits are normally direct reporting engagements.

Compliance audits may be attestation or direct reporting engagements, or both at once. In the case of Copper Street, the direct reporting may be appropriate as the mining operations will be assessed against the criteria, which the auditor selects as a bench mark for evaluating the compliance of operations of the mine.

c) Audit evidence which you should expect to find, in undertaking a compliance audit of Copper Street

- A copy of the operating licence, reviewed for conditions relating to health and safety and for potential fines and penalties which may be imposed in the event of non-compliance.
- A written representation from management on their intention (or not) to bring the non-compliance to the attention of the Mining Safety Department.
- A copy of board minutes where the accident has been discussed to identify the rationale behind the non-disclosure.
- A copy of reports issued by engineers or other mining specialists confirming the extent of the damage caused to the mine by the accident.
- Any quotes obtained for work to be performed to make the mine safe and for blocking off entrances to abandoned tunnels.
- Confirmation that the undamaged portion of the mine is operational, e.g. from reviewing a specialist's report.
- A copy of the surveyor's report on the residential properties, reviewed for the expert's opinion as to whether they should be demolished.
- A review of correspondence entered into with the local residents who have been relocated, to confirm the obligations the Copper StreetLtd has committed to in respect of their relocation.
- Copies of legal correspondence, reviewed for any further claims made by local residents.
- A review of the Mine accident book
- A copy of management's impairment review, if any, evaluated to ensure that assumptions are reasonable and in line with auditor's understanding of the situation.
- Confirmation that impairment losses have been recognised as an operating expense.
- A review of draft disclosure notes to the financial statements where provisions and contingent liabilities have been discussed.

d) Implications of the incidents described with regard to management integrity, and comment on any ethical matters arising:

Copper Street Ltd operates in a highly regulated industry, and auditors must consider the requirements of ISA 250 Consideration of Laws and Regulations in an Audit of Financial Statements. ISSAI1250 states that it is management's responsibility to ensure that operations are conducted in accordance with relevant law and regulations. The auditor is expected to obtain a general understanding of the applicable legal and regulatory framework and how the entity is complying with that framework. In this case, there is a suspected non-compliance with the Mining Safety Department health and safety requirements.

The accident may have been caused by using unsafe equipment or mining methods which failed to meet the authority's strict requirements. Management has not informed the authority, which may be for a genuine belief that there is no need to make a report concerning the accident, or it could be because management has something to hide and does not wish to come under the scrutiny of the authority.

ISSAI1250 states that if the auditor becomes aware of information concerning an instance of non-compliance or suspected non-compliance with laws and regulations, the auditor shall obtain an understanding of the nature of the act and the circumstances in which it has occurred; and further information to evaluate the possible effect on the financial statements. Further audit procedures will therefore be necessary. The matter should be discussed with those charged with governance, as required by ISSAI1250. Management should be asked to confirm the reason why the authority has not been notified of the accident, and a written representation should be obtained.

The auditors may wish to encourage management to disclose the accident to the authority. ISSAI1250 also requires that the auditor shall determine whether the auditor has a responsibility to report the identified or suspected non-compliance to parties outside the entity. The Auditors needs to carefully evaluate their legal responsibility to report suspected non-compliance to the Authority, and legal advice should be obtained to determine the appropriate course of action. Confidentiality is an issue, as usually auditors cannot disclose information obtained during the audit to external parties without the prior consent of the client. However, this may be overridden in some cases by legislation or court order. In certain cases, disclosure in the public interest may warrant disclosure without client consent. Again, legal advice would be helpful here, to determine whether confidentiality can or should be breached and a report made to the Authority if management fails to do so.

SOLUTION FOUR

a) The importance of transparency and accountability

The purpose of public sector audits is to improve transparency and accountability in the public sector. Audited entities are government ministries and other public sector organisations, which are accountable to parliament. An independent audit department within government conducts audits of public sector entities and reports to parliament. Most audits are financial audits, performance audits or compliance audits.

Transparency is a position of openness and full disclosure in public sector bodies. It is necessary to inform citizens of key issues and of any changes that can have significant effects on their lives and wellbeing. The citizens have been informed about the waste of medicines and loss of funds within the Ministry. However, the situation noncompliance has continued.

Accountability is also an essential aspect of public sector organisations. As with any major undertaking, a number of different stakeholders will be affected and each must be treated fairly and equally wherever possible. In this situation the wider benefits of the having sufficiently stocked and right quality of medicines in all health facilities and the regions as a whole are weighed against the needs of the citizens.

b) The audit objective and approach that could be undertaken in an audit of procurement of drugs

The objective of a performance audit should be related to the principles of economy, efficiency and/or effectiveness. The audit objective(s) must give sufficient information to the audited entity and other stakeholders about the focus of the audit. Well-defined audit objective(s) relate to a single audited entity or an identifiable group of government activities, systems, operations, programmes, activities or organisations.

The audit objective would be to evaluate the procurement control system and other key success factors that improve efficiency in the procurement function.

The audit approach should be result-oriented, problem-oriented or system-oriented (or a combination of approaches), and the approach taken depends on the objectives of the audit.

- A results-oriented approach deals with questions such as: 'What results have been achieved, and have the requirements or objectives been met? Findings are usually presented in the form of a deviation from criteria, and recommendations are aimed at eliminating the deviation.

- A problem-oriented approach deals with questions such as: 'What is the problem?' 'What are the causes of the problem? To what extent can the government resolve the problem? The audit begins with recognition that there is a problem or deviation. The audit should set out to establish what the problem is, what its causes are, and what can be done about it.

- A system-oriented approach is concerned with the functioning of a system, such as a financial management system or a control system, and considers whether they are well managed and functioning efficiently and effectively, or whether improvements can be made.

  The proposed approach in the audit of procurement system would be a combined approach, where aspects of problems, systems and results are considered.

  The formulation of the audit problem is either derived from shortcomings in the outputs and outcomes procurement's systems and processes. The audit will then verify the problem and analyse its causes. Audit criteria can also be used to assess the performance of procurement system with regard to the issues covered in the audit, in order to develop findings and conclusions by comparing conditions with criteria. In this approach, the ideal approach is to verify the audit problem, analyse the main causes contributing to the problems, assess these causes based on criteria and identify realistic and practical recommendations to reduce or solve the problems identified in the question.

c) The principles of economy, efficiency and effectiveness can be used in carrying out a performance audit of procurement:

Performance measurement in the public sector is more complex than in the private sector, where relatively straightforward financial measures can be a good indication of success of failure.

Although financial measures are important in the public sector also, they are not the only means of measuring performance. Public sector outcomes are often expressed in terms of value for money in the delivery of public services using public money raised through taxation and other government revenue. The value for money framework (or 3Es) can be used to measure the economy, efficiency and effectiveness of public service delivery.

Economy means minimising the cost of resources used for an activity, having due regard to quality. Resources (inputs) should be available in due time, of appropriate quantity and quality, and at the best price. For the procurement system for medicines and drugs the main inputs are staff and funds. The economy perspective may deal with questions such as: has the Ministry employed officers with an appropriate competence for the tasks of procurement that are assigned to them? Are expenditures kept within budget?

Efficiency means making good use of the available resources. Efficiency is related to economy in the use of resources. The main questions to be asked are: have the resources been put to optimal or satisfactory use? Or could similar results have been achieved just as well with fewer resources? The Efficiency of a procurement system of medicines and drugs can be measured by comparing the number of staff with the quantity and quality of the medicines and drugs procured.

Questions that may be used in the efficiency analysis of the medicine and drug procurement system are: how has the control processes of procurement improved over time? To what extent do procurement control processes address the main causes of identified problems and short coming in procurement of medicines and drugs?

Effectiveness is concerned with objectives and achievements. It is concerned with the questions: did our use of resources result in the achievement of the intended outcome? Or did our use of resources result in the achievement of the intended outputs? Resources may be used effectively to achieve the planned outputs, but this in itself may fail to achieve the intended outcomes. Good outcomes for the Ministry could be a reduction in the irregularities and an improvement in the procurement system of medicines and drugs.

When making an assessment of economy, efficiency and effectiveness, quality is an important consideration. If the cost and quantity of resources needed to perform an activity can be reduced, but the quality of outputs from the procurement operations has declined, it is questionable whether economy, efficiency and effectiveness have been achieved.

SOLUTION FIVE

a) **Importance of data analytics or data mining in forensic investigations.**
The use of data analytics or data mining is an important part of many forensic investigations. These are in-depth queries or searches into large files of data in order to identify anomalous individual items. Items that are identified as unusual can then be scrutinised in more detail, manually.

Data analytics facilitates rapid analysis of huge numbers of transactions that have passed through anorganization's accounting system, and the identification of anomalies, far more quickly than by traditional documentary analysis. For example, 100% of an entity's transactions could be checked for characteristics such as date, time, amount, approval and payee.

b) **Features of a forensic audit that distinguishes it from other types of audits**

There are a number of ways in which the work typically carried out by forensic auditors can be differentiated from that of other types of audit.

Ad hoc rather than routine engagements.A forensic audit does not happen as a matter of routine or under a predetermined schedule. Instead, it usually involves an investigation of a specific matter that has, or is suspected of having occurred. Thus its primary purpose is to gather information related to this matter and provide evidence that may be used in legal or other proceedings and assist in determining the necessary steps to provide remediation and minimize losses.

High probability of dishonesty. Matters subject to forensic audit often involve deception or other dishonest practices, often perpetrated by staff members or management. Therefore the approach of the forensic auditor must go beyond professional scepticism expected of any auditor and forensic auditors may need to be suspicious of the truth of statements made to them by an organisation's staff.

Consideration of wide variety of sources. Although the work conducted by the forensic auditor is likely to begin with an examination of an organisation's financial records, it is also likely to expand into other areas and including extensive interview of staff members and third parties. Forensic auditors will need the necessary skills to effectively conduct such interviews.

May result in legal action. A forensic auditor's work may lead to legal action being taken against one or more parties. Because of this, a forensic auditor's work may be required as evidence in a court case or other disciplinary action.

Different skills and mindset. Forensic auditors may have similar educational backgrounds to other auditors, but their mindset and working practices may be very different. For example, for the forensic auditor each engagement has individual characteristics and there is no previous year working papers to assist in planning the work to be undertaken.

Non-standard format of report. Forensic audit is not concerned with reasonable assurance, but rather with producing accurate evidence capable of supporting legal action. The exact form of the report produced by a forensic audit depends upon the terms of the assignment and should be agreed at the outset of an engagement.

c) Key stages in a forensic investigation of the fraudulent activities at the Ministry.

The key stages in a forensic investigation are:

- Define the scope and objectives of the investigation. This includes establishing the truth of any allegations.
- Understand the organization through reviewing financial information and any media coverage.
- The forensic auditor also needs to understand the nature of the matter under investigation, and to understand the nature of fraud and the circumstances in which it occurs.
- Take steps to secure and safeguard financial and other information. Information may be physical or digital and it is vital to ensure that information is not destroyed, corrupted or altered.
- Inspect financial and other documents for evidence of 'red flags' that suggest fraud or other illegal activity.
- Use computer aided audit techniques to analyse data
- Interview staff and third parties with a view to obtain information or an admission of guilt.
- Forensic accountants need strong interviewing skills and a knowledge of what is legally admissible.
- Draw conclusions which are unbiased, objective and supported by sufficient adequate evidence.
- Report on the findings with reference to the original brief and recommend further action to be taken.

d) **Procedures to be used in performing a forensic investigation on the alleged bribery payments:**

Forensic procedures would include:

- Interview the staff members involved and question them regarding the nature of any requirements made of contractors prior to the signing of the contracts.
- Use computer-assisted audit techniques to identify all new contractors in the year together with any payments made to these customers, and total the amounts.
- Review all major public projects connected to the Ministry, and determine whether the contracted companies were also in receipt of other (possibly lucrative) contracts from the Ministry.

END OF SUGGESTED SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

ADVISORY LEVEL

CA 3.8: PUBLIC SECTOR FINANCIAL MANAGEMENT

FRIDAY 13 DECEMBER 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

The Zambian government through the Ministry of Health plans to invest in a modern heart diseases hospital in the Northern Province. This has been necessitated by the sharp increase in the number of heart patients in the country over the last 10 years .The hospital will require specialized equipment to be imported from Europe at a cost of $1.15m.

The government intends to purchase an already existing building for K20m for this purpose. Financing for this building will be obtained through a foreign bank loan.

The following operating expenses are expected to be incurred during the ten year period of government control:

Description	K
Monthly salaries and wages	180,000
Repairs and maintenance per annum	40,000
Electricity charges per annum	703,200
Insurance per annum	1,192,800
Medicines per annum	1,216,900
Other overheads per annum	44,800

All the operating expenses, except for insurance and electricity will be payable at the end of the year. Insurance and electricity expenses are payable at the beginning of the year. A specialist surgeon will be hired on a three year contract at a salary of $8,000 per month from the first year of operations. Repairs and maintenance expenses are expected to increase to K50, 000 per annum from the fourth year of operations.

The government is currently spending K15.5m annually to send patients overseas for specialized medical treatment. It is estimated that this cost is expected to reduce by 80% annually upon commencement of operations at the hospital.

Equipment worth K16m will be sourced locally. This equipment will be paid for in two equal installments at the end of year one and year two. However, this will not affect the commencement of operations. Operations will commence at the beginning of year one.

Government policy is currently to provide free medical services to its citizens. This is contained in the ruling party's manifesto and it is among the main campaign promises to the electorate during the just ended general elections. At the end of the ten year period of operations the hospital is expected to be sold to private investors for a consideration of K10m.

Assume the spot exchange rate of Zambian Kwacha (ZMW) to United States dollars ($) is as follows:

ZMW/USD$	
9.1	9.8

The government's social opportunity cost of capital is 6%.

The Zambia government is currently facing economic challenges due to low export earnings. This has led to a negative balance of payments. Therefore; it is currently considering addressing the negative balance of payments (BOP) by obtaining a loan from the IMF.

Required:

Write a report to the Ministry of Health which should address the following:

(a) Calculation of the Net Present Value (NPV) of the proposed investment in the hospital and advise the government whether the investment is worthwhile on financial grounds.

(20 marks)

(b) Explanation of any two types of risks that the Zambian government will be exposed as a result of the proposed investment and the possible hedging method for each.

(10 marks)

(c) Explanation of the two ways in which fiscal risk can be categorized as recommended by the IMF. (10 marks)

[Total: 40 Marks]

SECTION B

There are four (4) questions in this section. Attempt any THREE (3) questions.

<u>QUESTION TWO</u>

Kando City council was established in 1994. Since its establishment, the Council has operated a number of commercial ventures such as restaurants, lodges and hotels in the city.

Kando City Council is in the process of constructing a huge sports facility. The facility is expected to be completed in four months' time. It was partly financed by the project component of the capital grant from government and partly from Kando's own internally generated resources. This facility will consist of a tennis court, basketball court and a football pitch among other sporting disciplines.

During a recent full council meeting held in the Kando City Council Chamber, a number of different options of running the sports facility once it is completed were considered. Some councilors suggested that since the council does not have the experience in this area, it is necessary to identify a private company with the expertise. An arrangement could be made with such a company and a contract signed with terms and conditions agreeable to both parties.

The town clerk at a recent management meeting suggested the involvement of a financial consultant in the choice of delivery methods of a Public Private Partnership (PPP) arrangement for the facility.

Required:

You are the financial consultant of Kando City Council. Write a report to the Town Clerk detailing:

(a) The nature and essential features of a Public Private Partnership (PPP) arrangement. (3 marks)

(b) The four (4) PPP delivery methods available to Kando city council for the sports facility. (12 marks)

(c) A recommendation to Kando city council management as to which delivery method among the four is most suitable for the sports facility. (5 marks)

[Total: 20 Marks]

QUESTION THREE

The budget reform introduced in Zambia in the year 2014 for the 2015 budget on a pilot basis (only for the Ministry of Education Budget) is a variant of program budgeting and a front-runner for a fully-fledged performance budgeting system.

The accountant at the Ministry of Higher Education is uncertain how this budget reform will benefit the ministry and in turn country at large. She believes that the current activity based budget (introduced in 2003) is good enough for Zambia since it is based on the cost of each intended activity. She was recently informed by the Chief Accountant that the Ministry of Higher Education would be used as pilot ministry for implementation of the Output Based Budget (OBB) introduced in 2014. The Chief Accountant has since asked her to write some detailed notes on the budget reforms for him to present at the next senior management meeting.

The accountant, who is your friend, has approached you to assist her with information on the subject of budget reforms to present to the Chief Accountant.

Required:

(a) Explain the factors that could have led to the changes in:

(i) The budget processes in the past and (4 marks)

(ii) The current budget reforms in the public sector. (5 marks)

(b) Provide some detailed notes which compares the current activity based budget (ABB) and the recently introduced output based budget (OBB). (6 marks)

(c) Explain the likely challenges of implementing the Output Based Budgeting method in Zambia. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) The Auditor General's report on the Financial Accounts of the Republic of Zambia for the financial year ending 31 December 2016 showed that the trend of irregularities on accounted for revenue, unaccounted for funds, misapplication of funds, misappropriation of funds, unretired accountable imprest, unaccounted for stores have continued to increase (see extract below). If the trend continues, this is likely to impact on service delivery and consequently make the vision of Zambia becoming a middle income country by 2030 a pipe dream.

Details	**2016** **K**	**2015** **K**	**2014** **K**
Unaccounted for Revenue	3,700,509	558,449	3,251,333
Unaccounted for Funds	386,834	193,910	506,354
Misapplication of Funds	162,095,699	28,153,997	73,637,561
Unretired Accountable Imprest	17,559,399	12,659,892	12,585,194
Unvouched Expenditure	170,554,478	349,306,160	389,905,333
Unaccounted for Stores	14,428,573	13,460,323	26,400,272
Irregular Payments	1,591,348	115,350,860	26,358,488
Non Recovery of Advances and Loans	1,689,982	2,352,451	2,877,442
Failure to Follow Procurement Procedures	509,535	35,701,492	2,720,434
Undelivered Materials	116,759,240	251,523,804	522,904
Non Submission of Expenditure Returns	40,705,270	6,308,762	1,232,749
Wasteful Expenditure	3,586,879	39,854,959	8,354,290
Overpayments	1,061,247	26,559,013	1,578,571
Misappropriation of Funds	3,618,127		4,767

Source: 2016 Auditor Generals' Report

Required:

(i) Discuss the likely causes of fraud and corruption, using examples as appropriate and the impact they can have on Public Services. (5 marks)

(ii) Describe the role of the Accountant in fraud prevention and detection in the Public Service Organisations. (5 marks)

(b) In Zambia, there are certain key institutions and individuals mandated to perform various functions and duties to ensure effective public financial management.

Explain Five (5) duties of each of the following individual and institution towards effective public financial management:

(i) The Auditor General (5 marks)

(ii) Parliament (5 marks)

[Total: 20 Marks]

QUESTION FIVE

(a) The recent audit report for the Ministry of General Education revealed glaring Audit Queries. In view of this, the Minister of Finance organised a meeting with controlling officers to discuss issues raised by the Auditor General. In his presentation to the controlling officers, he stressed the fact that, "Effective management of public expenditure was an essential mechanism for effective allocation and use of public funds in order to achieve the nation's policy objective."

Required:

Explain the procedures necessary for effective management of public resources.

(6 marks)

(b) The Zambian government formulated the decentralisation policy five years ago. One of the key interventions was implementation of fiscal decentralisation as one of the Public Financial Management reform initiatives.

Required:

(i) Explain the concept of fiscal decentralisation. (6 marks)

(ii) Explain factors that underpin successful fiscal decentralisation as a public sector financial management and administrative tool.

(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

CA3.8 SOLUTION

SOLUTION ONE

a)

Workings

Salaries and wages K180000 * 12 =K2, 160,000 per annum

Surgeon $8000 * 9.8*12 = K940800

Initial Cost = k20m

Local medical equipment

Year 1=16/2=K8m

Year 2 = 16/2=K8m

Year 0 = Specialized Equipment $1.15 * K9.8= K11, 270, 000

Annuity factor year 1-10 =7.360

Less

Annuity factor year 1-3 =2.673

= Annuity Factor year 4-10=4.687

Savings in medical bills =K15.5m * 0.8=K12.4m

Year	0	1	2	1-3	4-10	1-9	1-10	10
	Km	Km	Km	Km	Km	Km	Km	Km
Initial cost	20							
Equipment	11.270	8	8					
Insurance	1.1928					1.1928		
Electricity	0.7032					0.7032		
Surgeon				0.9408				
Medicines							1.2169	
Overheads							0.0448	
Salaries							2.160	
Repairs & mtce				0.04	0.05			
Savings							12.4	
Disposal								10
Net Cash outflows	13.166	8	8	0.9808	0.05	1.896		
Net Cash inflows							8.9783	10
Discount factors	1	0.943	0.890	2.673	4.687	6.802	7.360	0.558
PV of outflows	33.166	7.544	7.12	2.6217	0.2344	12.897		
PV of inflows							66.08	5.58

Net present Value =71.66-63.58=K8.08m

The investment is worthwhile as it results in a positive NPV of K8.08m. Therefore the government should proceed with the proposed construction.

b)

1) Foreign Exchange Risk

This will arise because the Government will be importing the equipment from Europe. It will depend on the exchange rate of the Arman kwacha to the Euro at the time of importation. If the Arman Kwacha weakens against the Euro immediately before payment is made, the Government will end up spending more on the equipment than budgeted. The risk can be hedged through a forward rate agreement which essentially will fix the exchange rate in advance.

2) Interest rate risk

This will arise as a result of the bank loan. The risk could arise due to the rise in market interest rates during the term of the loan assuming it is a variable rate loan. This will mean that Arman will pay more in interest rates than budgeted. However if the interest rates are fixed over the term of the loan, such a risk will not arise. The risk can be hedged through an interest rate swap which essentially is an exchange of interest payments e.g exchanging variable interest payments for fixed interest payments or vice versa.

c) Fiscal Risk Categorization**:**

The categorization of fiscal risk recommended by the IMF is:

Endogenous or Exogeneous

Endogenus risks – are those generated from government activities or which are influenced by government actions

Exogeneous risk – are those that arise from actions or events outside of government control – e.g global commodity price volatility

Continuous or discrete risks

Continuous risks – regular events that cause outturns which differ from forecasts which can be incorporated into fiscal settings.

Discrete risks – those that occur irregularly, or may never have occurred. Such risks could be :

Probable – in which case they should be provisioned for in the budgets and medium term expenditure forecast;

Possible – likely to occur at some point but not in the near term

Remote – potentially significant but hard to predict when if ever they will occur – e.g natural disasters

SOLUTION TWO

To: Town Clerk –Kando City Council

From: Financial Consultant

Date: 5th June 2018

RE: PUBLIC PRIVATE PARTNESHIP (PPP) DELIVERY METHODS FOR SPORTS FACILITY

This report is description of the various Public Private Partnerships (PPP) arrangement options available to Kando City Council for the sports facility and a recommendation of the most suitable method.

1) NATURE AND ESSENTIAL FEATURES OF PPPs
   PPP is a term that is usually used to describe a long term contractual arrangement for the provision of a public asset and related services in exchange for performance based payments linked to the asset's availability and/or use and the delivery of the related services (European PPP Expertise Centre).
   The essential feature of a PPP compared to conventional public procurement is that the private sector has a more significant operational role in the delivery of services related to the asset, and will also generally bear more of the risk regarding the financing, construction, availability and demand for the asset. The benefit to the public sector is the ability to transfer some risks to the private sector where they may be more efficiently and effectively managed, and access to private sector finance and expertise unavailable under a conventional procurement.

2) PPP DELIVERY METHODS
   PPP delivery methods include a range of different arrangements including:
   i. Leasing arrangements
      Private sector entity pays to operate an asset that is owned by the public sector. The private sector operator then charges those using the asset or associated services, with the public sector passing demand risk to the private sector. The public sector will, however, usually be responsible for ensuring the availability of the asset and ongoing maintenance, which it will fund from the lease payments it receives. Leasing arrangements are more common when the public wants to add private sector expertise in the operation of a public utility.
   ii. Concessions
      Concessions differ from a lease in that under a concession arrangement the public sector will transfer the long term right (25 years or more) to use an asset to a concessionaire, and this will include responsibility for operation and importantly financing and managing investment required to deliver services. Asset ownership at the end of a concession rests with the public sector. The concessionaire will generate revenue from the users of the asset, and in addition to financing the investment may also be required to pay a concession fee to the public sector. The public sector is able to transfer a range of risks under such arrangements including construction, demand and availability risks.

iii. Design-build-operate (DBO)

Under a DBO arrangement the public sector will finance the construction of new assets and maintain ownership of them. The private sector partner will however be responsible for their design, build and operation. Payment to the private sector will generally be based on completion of the asset and then an output based operating contract, with demand and availability risk based on the specific terms of the arrangement but usually resting with the private sector operator. This kind of arrangement requires public sector financing, but brings private sector expertise in the design and construction of the asset and future operation.

iv. Build-own-operate-transfer (BOOT).

This is used for new discrete assets rather than whole networks, in a BOOT the private sector will finance the build of a new public asset which it will own and operate. Payment will normally be received from the government by means of a unitary payment linked to the assets availability and/or use and the delivery of the related services. This unitary payment will not only provide the private sector operator with performance related compensation but also the financing and development costs associated with the asset and its ongoing maintenance.

3) RECOMMENDATION

I will recommend the leasing arrangement delivery method for the sports facility. This is because the facility is almost nearing completion and has been constructed by the Kando City Council. The risk of construction can therefore not be passed to the private sector. In addition a lease may not necessarily be a very long term arrangement (e.g. 25 years or more for a concessionaire) which reduces the risk of Kando tying itself for a long time to something that may not be workable. Though Kando will bear the costs of maintenance, these can be incorporated in the lease rental charge to be received from the private company.

NOTE: any other reasonable recommendation would also be acceptable.

SOLUTION THREE

a)

i. Changes in budgeting processes and budget formats have mainly been initiated by decision makers and pressure groups outside government in response to non-participative and un-transparent budgeting processes, lack of budget background information and largely inaccessible budget documents. For many years, both the entire process of compiling budget estimates and the budget document were seen as technical matters and, as such, no meant for public participation nor active involvement of the political leadership. This state of affairs has changed, and over the past thirty years or so, budget methods have changed significantly towards bottom up participatory budget processes; increased time for political negotiations; prioritization and examination of budget background papers; better and more accessible budget information and documentation; better links between policies, budgets and results.

ii. In Zambia, the most recent budget reform, namely the introduction of output based budgeting in 2014, is seen as a response to the politicians complaints about the bulkiness of the Activity-Based Budget format and the weak or non-existing links to policy objectives and sector programs. The numerous programs and activities have led to a mammoth budget document with numerous numbers, but without information on expected results (outputs) and geographic location of the spending- information that is important for the political prioritization and decision making process. Moreover, a mix of programs with economic classifications and weak links to mandated functions of MPSA's has created challenges in terms of budget management, analysis and reporting.

b) ACTIVITY BASED BUDGETING VS OUTPUT BASED BUDGETING

Activity based budgeting is an approach that involves the creation of an activity based structure for government activity and then the costing of those activities. The Activity Based Budgeting method uses the volume of a particular activity instead of historical expenses. As such ABB provides a way of linking costs (inputs) to outputs, which in turn should lead to improved allocative efficiency cost control.

Output based budgeting (OBB) places emphasis on the focuses on the delivery of outputs or results linked to policy objectives. The basic idea is that the budget of government agencies is approved and funded on the basis of delivery of planned and actual outputs and outcomes (achievement of objectives). The key question is what should be delivered by each agency rather than how much the agency should be given. Each output is then costed and the budget allocation for the agency is the quantity of outputs to be delivered multiplied by the price payable per unit.

c) The output based budgeting (OBB) system requires that there are in place appropriate measurable objectives, defined output targets and indicators for both outcomes (achievement of objectives) and outputs.

   In addition the OBB does not replace the costing of inputs or activities. While the focus is on budgeting for results, inputs to achieve these still need to be costed. The challenge in budgeting is to provide both enough output based information to meet the link to planning and enough activity based line-item information to meet the need for information on inputs.

SOLUTION FOUR

a) Discuss the likely sources of fraud and corruption, using examples as appropriate and the impact they can have on Public Services. What is the role of the Accountant in fraud prevention and detection?
Fraud and corruption is committed by a range of perpetrators. Fraudulent activity ranges from internal fraud of minor theft and false expense claims, through to organised procurement fraud through cartels and price fixing. Corrupt behaviour includes bribery and collusion with the intent to conceal personal financial advantage gained through such behaviour. The impact of fraudulent activity can reach beyond just the financial loss. It can undermine the relationships with contractors, with suspicion and distrust materialising during contract negotiations. It can cause damage to the reputation of the organisation that suffers the fraud through perception of poor management and poor internal controls, and potentially this might put-off sources of funding from co-operating partners. Co-operating partners may not want to work with an organisation that has been associated with a fraud or corrupt behaviour. Zambian example: In 2009 the Anti-Corruption Commission (ACC) unearthed a scam in which over K10 billion from the ministry of health was misappropriated. The commission said the money was misappropriated by some health officials. This resulted in the co-operating partners and Global Fund suspending disbursements to the Ministry of Health (MoH) of Zambia, which was the principal recipient (PR) for several grants. The Global Fund's Office of the Inspector General (OIG) concluded that there was fraud in connection with one or more of the grants. The grant was later transferred from the MoH grants to a new PR, the United Nations Development Programme (UNDP), on an interim basis Fraud occurs most regularly where organisations fail to manage contracts properly or where controls around authorisation of orders and payment of invoices are weak. Unscrupulous contractors submit inflated or fictitious invoices which are paid without sufficient scrutiny by contract managers or finance teams. Bogus suppliers submit fictitious invoices and rely on weak systems of controls to obtain payment. This is often done by impersonating a real supplier to the organisation and then submitting invoices with 'new' payment details. Fraud and corruption stem from the lack of transparent regulatory and authoritative

mechanisms, heightened levels of bureaucracy and deficient ethical enforcement measures. A few of the key risk areas include:

- Procurement
- Supply chain
- Hazardous work environments (with regard to health and safety, child labour etc.)
- Embezzlement and financial misrepresentation
- Excessive third-party engagement and relationships
- Bribery
- Absence of good governance

Accountants must be alert to potential fraud and the potential financial impact on budget planning. Accountants have a responsibility for ensuring that systems and procedures are in place to prevent and detect fraud. All officers and decision makers in an organisation have some responsibility for preventing and detecting fraud. The culture of the organisation should encourage reporting of suspicious behaviour and provide confidence that reporting will be investigated in a confidential and professional manner.

The Accountant in a public service organisation has specific responsibilities for safeguarding public money. Accountants must:

- lead the implementation and maintenance of a framework of financial controls and procedures for managing financial risks
- determine accounting processes and oversee financial management procedures that enable the organisation to budget and manage within its overall resources
- ensure robust systems of risk management and internal control
- ensure financial control is exercised consistently
- implement appropriate measures to protect its assets from fraud and loss

In practical terms the Accountants must ensure the internal control framework is established to (as far as possible) prevent internal fraud through separation of duties and authorisation or access controls that will prevent or detect irregularities. The control framework should extend to appropriate arrangements to effectively detect potential fraud, especially from external sources. The Accountants must be aware of the risks of fraud and the likely areas of exposure and have plans to mitigate the financial impact if the event actually occurs. This might be through insurance or through investment in controls that minimise the risk of fraud occurrence in the first place. Financial strategy should be developed to ensure the organisation has resilience should a fraud occur and sufficient reserves or insurance to withstand the financial impact.

b)

i. The Auditor General

- Audit of Accounts of state organs, state institutions, provincial administration and local authorities and institutions financed from public funds;
- Audit of accounts that relate to the stocks , shares and stores of the Government;
- Conducting financial and value for money audits , including forensic audits and any other type of audit , in respect of a project that involves use of public funds;
- Ascertain that money appropriated by parliament or raised by the government and disbursed :
  - Has been applied for the purposes for which it was appropriated or raised
  - Was expended in conformity with the authority that governs it
  - Expended economically , efficiently and effectively

ii. Parliament

Responsible for overseeing the performance of the executive by:

- Ensuring equity in the distribution of national resources amongst the people of Zambia
- Appropriating funds for expenditure by state organs , state institutions, provincial administration , local authorities and other bodies
- Scrutinising public expenditure , including defence, constitutional and special expenditure
- Approving public debt before it is contracted

SOLUTION FIVE

a) i. Identify procedures necessary for effective management of public resources.

- There is the need for effective control of cash;
- It is essential that the regulations and the instructions given by the Accountant General with respect to disbursement of public funds, are fully complied with;
- Details of all payments must be properly authorised and captured;
- An approving officer shall only approve a commitment where sufficient unspent and uncommitted warrant balance exists for the purpose of the commitment or where the Minister of Finance has approved a commitment extending beyond the current financial year;
- A payment from the MPSAs account shall be made where an Approving Officer has duly authorised the payment and the Head of Finance has certified that the details of the payment are correct and the payment may be properly made;
- All payments must be supported by a payment voucher which shall contain the particulars of the service works or goods being paid for by the MPSA.

b) i. Explain the concept of fiscal decentralisation.

Fiscal decentralisation comprises the financial aspects of devolution to regional and local government.

- Fiscal decentralisation covers two interrelated issues. The first is the division of spending responsibilities and revenue sources between levels of government (national, regional, local etc).
- The second is the amount of discretion given to regional and local governments to determine their expenditures and revenues (both in aggregate and detail).

How much power and responsibility regional and local governments actually exercise depend substantially on :

- what range of public services they finance;
- whether their revenues are commensurate with these responsibilities;
- how much real choice they have in allocating their budget to individual services;
- whether they can determine the rates of their taxes and charges (both allowing them to vary their level of spending and making them answerable to the payers).

ii) Describe factors that underpin successful fiscal decentralisation as a public sector financial management and administrative tool

i. **Management Of Devolved Financial Resources**

- Provision of local services;
- Level of local taxation and revenues (rates, fees, fines);

- Government's ability to finance other projects, especially capital projects;
- Resource mobilization.

ii. **Public Accountability And Public Budgeting**
- Resource allocation;
- Public debates or stakeholder consultation;
- Administrative /organisational system
- Answerability to communities.

iii. **Financial And Budgetary Control**
- Compliance to financial rules, laws and objectives of organization;
- Effective and efficient expenditure management;
- Judicious use of funds and other resources;
- Safeguarding of assets of assembly;

iv. **Political Empowerment**
- Administrative control;
- Capacity building;
- Economic development (local and national);
- Full complimentary and timely financial support by central government, donor agencies, NGO's, etc.