CHARTERED ACCOUNTANTS EXAMINATIONS

CA ZAMBIA - APPLICATION LEVEL

CA 2.1: FINANCIAL REPORTING

MONDAY 14 DECEMBER 2020

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

PeacePlc holds investments in LovePlc and Joy Plc. Draft financial statements of Peace Group for the year ended 31 March 2020 are as follows:

	Peace	**Love**	**Joy**
	K'000	**K'000**	**K'000**
Assets			
Non-current Assets			
Property, Plant and Equipment	212,000	300,000	180,000
Other investments	1,000		
Investments in Love and Joy	80,679	Nil	Nil
Total Non-current Assets	293,679	300,000	180,000
Current Assets			
Inventories	268,000	40,000	32,000
Trade Receivables	60,600	36,000	28,800
Cash and Cash Equivalents	2,000	8,000	6,500
Total Assets	**624,279**	**384,000**	**247,300**
Equity and Liabilities			
Equity Shares of K1 each	116,000	80,000	64,000
Retained Earnings	124,934	124,000	80,000
Total Equity	240,934	204,000	144,000
Non-current Liabilities			
Loan Notes	76,000	136,000	40,000
Deferred Consideration	49,586	Nil	Nil
	366,520	340,000	184,000
Current Liabilities			
Trade and Other Payables	244,959	36,000	43,300
Short-term Borrowings	12,800	8,000	20,000
Total Equity and Liabilities	**624,279**	**384,000**	**247,300**

Additional information:

1. On 1 April 2018, Peace a listed company on the Lusaka stock exchange acquired 60,000,000 of Love's shares when Love's retained earnings were K64 million, on the following terms:

   (a) An immediate cash payment of K10 million.

   (b) Peace issued 2 shares for every 3 shares acquired in Love. In addition, Peace will issue a further 5 million share on 31 March 2021 if Love's net profit after taxation was at least K4 million for the year ending on that date. On the date of this acquisition, the market value of Peace's single share was K3.50; while that of Love was K2. It is felt that there is a 20% chance of the profit target being met. The share exchange and contingent consideration have not yet been accounted for.

   (c) On 31 March 2021, Peace was to make deferred cash payment of K1 per Love share acquired. Love's required rate of return at the date of acquisition was estimated at 10% per annum. The unwinding of the interest for the year to 31 March 2020 on the deferred consideration is yet to be accrued.

2. On 1 April 2019, peace sold an item of plant to Love at an agreed fair value of K30 million. Its carrying amount prior to the sale was K24 million. The estimated remaining life of the plant at the date of sale was five years.

3. It is group policy to value non-controlling interests in subsidiaries at the date of acquisition at fair value. The market value of an equity share in Love at 1 April 2018 should be used for this purpose.

4. The directors of Peace carried out a fair value exercise to measure identifiable assets and liabilities of Love at 1 April 2018. The following matters emerged:

   (a) Plant and equipment having a carrying value of K80 million had an estimated fair value of K88 million. At the time, the estimated future economic life of the plant was five years and this estimate remains valid. Love disposed of 20% of this plant and equipment since 1April 2018.

   (b) An item of inventory's carrying value was K2.4 million less than its estimated fair value. At 31 March 2020, this inventory had all been sold.

   (c) Love had an internally generated brand name on the date Peace acquired control over it. The directors of Peace estimated the fair value of this brand name to be K1 million with indefinite life and that it had not suffered any impairment.

5. Peace made cash payment of K25.6 million, being acquisition of 40% interest in equity shares of Joy. On the date of acquisition the retained earnings of Joy stood at K20 million debit balance. Peace has a board members representing its interest on the Joy board but no power to appoint the majority of the board members for Joy. Peace Plc exercises significant influence in all financial and operating policies of Joy Plc.

6. Annual impairment tests have indicated impairment losses of K3 million relating to the recognised goodwill of love, including K2.2 million in the current year. No impairment losses to date have been necessary for the investment in joy.

7. The figure for inventories in draft financial statements of Love and Joy at 31 March 2020 includes components purchased from Peace during the year at a cost of K12 million to Love and K10 million to Joy. Peace had applied a mark-up of 25%.

8. Trade receivables of Peace include K6.4 million and K4.8 million due from Love and Joy respectively; while Trade payables of Love and Joy include equivalent amounts payable to Peace.

9. The other investments are measured at fair value throughprofit or loss in accordance with IFRS 9 *Financial Instruments* and are included in Peace's statement of financial position above at their fair value on 1 April 2019. They had a fair value of K2 million at 31 March 2020.

10. Neither Love nor joy issued share in the post–acquisition period. Further, no dividends were paid during the year by any of the companies.

11. Consolidation is the process of adjusting and combining financial information from theseparate financial statements of a parent and its subsidiaries to prepare consolidatedfinancial statements that present financial information for the group as a single economicentity.A parent company is required to present consolidated financial statements in which it consolidates its investments in subsidiaries. However, a parent is not required to (but may) present consolidated financial statements if and only if all of the certain conditions are met.

Required:

(a) Prepare Peace's Consolidated Statement of Financial Position at 31 March 2020.

(37 marks)

(b) Describe three (3) circumstances in which a parent entity may not be required to present consolidated financial statements under International Financial Reporting Standards.

(3 marks)

[Total: 40 Marks]

SECTION B

Attempt any three (3) questions in this section.

QUESTION TWO

The following is a trial balance of Gleko Plc for the year ended 30 June 2020.

	'K'	'K'
Revenue (note (i))		775,000
Cost of sales	586,260	
Freehold land at valuation (note (ii))	76,000	
Investment property (note (ii))	65,000	
Distribution costs	58,000	
Administrative expenses	63,800	
Loan note interest paid	1,200	
Dividends paid	5,000	
Brand at cost (note (iii))	21,750	
Plant and equipment at cost (note (ii))	239,830	
Accumulated depreciation/amortization at 1 July 2019:		
Plant and equipment		106,430
Brand		8,700
Inventory at 1 July 2019	93,090	
Bank		7,200
Current tax		6,250
Deferred tax		31,500
4% convertible loan note (note (iv))		30,000
Bank interest paid	4,500	
Trade payables		134,560
Trade receivables	111,650	
Equity shares of K1 each		145,000
Revaluation reserve		34,500
Retained earnings		46,940
	1,326,080	1,326,080

The following information is relevant:

(i) Revenue includes an amount of K36,000 for a sale made on 1 July 2019. The sale relates to a single product but includes on-going servicing by Gleko Plc. for three years. The total normal stand-alone selling prices of the product and servicing would be K31,000 and K9,000 respectively.

(ii) At 30 June 2020, Freehold land has a fair value of K82,000 and investment property is considered to have a fair value of K63,000. Gleko Plc. uses the fair value model to measure investment properties.
Plant and equipment is depreciated at 15% per annum using reducing balance method.

(iii) During the current year, revenue declined due to poor performance of one of the product brands and directors of Gleko Plc. feel the brand could be impaired. A review of the brand at the year end concluded that at 30 June 2020, the present value of future estimated net cashflows from the product brand was K9,425 and an offer from the company in the same industry as Gleko Plc. of K9,860 to buy the brand has been received. The brand name has an original life of 10 years.

(iv) On 1 July 2019, Gleko Plc. issued a K30,000 4% convertible loan note, which is repayable on 30 June 2023. Gleko Plc. opted for the convertible loans as it meant that similar loan notes with no conversion had higher interest rate charged. The present value of K1 payable at the end of each year, based on discount rates of 4% and 8% are:

	4%	8%
End of year 1	0.96	0.93
2	0.92	0.86
3	0.89	0.79
4	0.85	0.735

(v) The directors of Gleko Plc. estimate a provision for income tax for the year ended 30 June 2020 to be K33,060. The balance of current tax in the trial balance represents the under/over provision of the tax liability for the year ended 30 June 2019. At 30 June 2020, Gleko Plc. had taxable temporary differences of K53,650 requiring a provision for deferred tax. Any deferred tax movement should be reported in profit or loss. The income tax rate applicable to Gleko Plc. is 30%.

(vi) All depreciation, amortization and impairment is to be charged to cost of sales.

Required:

(a) A statement of profit or loss and other comprehensive income for Gleko Plc. for the year ended 30 June 2020. (9 marks)

(b) A statement of financial position for Gleko Plc. as at 30 June 2020 (11 Marks)

[Total: 20 Marks]

QUESTION THREE

(a) Balawa Co. owns property that was acquired on 1 January 2019 on credit for K150 million. 30% of the acquisition cost was financed via a government grant. The property had a useful life of 10 years when acquired. Balawa Co accounts for grants using the deferred credit method.

Required:

(i) Distinguish between revenue grant and capital grant. (2 marks)

(ii) Prepare extracts for financial statements of Balawa Co for the year ending 31 March 2020, to reflect the above transactions. (6 marks)

(b) Mahogany Airways has aircraft that are accounted for using IAS 16 Cost Model and treated as complex non-current assets. The cost and other data of one(1) of its aircraft is provided below:

	Purchased & Installed	Cost K'000	Estimated useful life
Engine	1 April 2017	120,000	48,000 flying hours
Cabin Fittings	1 April 2017	250,000	10 years

On 1 January 2019, the company's aircraft landed emergently due to bad weather leading to engine damage beyond repair. The engine was replaced immediately with a new one at a cost of K150 million with a useful life of 50,000 flying hours.

In the process, a wing was damaged and repaired at a cost of K15 million and exterior painting marginally came off that required repainting at a cost of K6 million.

In the year ended 30 September 2019, the aircraft flew for a total of 1,400 hours being 400 hours prior to 1 January 2019 and 1000 hours from 1 January 2019 to 30 September 2019. In previous accounting periods, the aircraft flew for 1,600 hours annually. Further, the aircraft flew 800 hours from Installation to 30 September 2017. Mahogany airline year end is 30 September every year.

Required:

(i) The finance director of Mahogany Airline has asked you to extract financial statements for the year ended 30 September 2019, from the above details of the aircraft. (8 marks)

(ii) Identify and explain two (2) indications of impairment arising from Mahogany Airline's Aircraft. (4 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) IFRS 15 *Revenue from Contracts with Customers* specifies how and when an IFRS reporter will recognise revenue as well as requiring such entities to provide users of financial statements with more informative, relevant disclosures. Generally revenue is recognized when the entity has transferred promised goods or services to the customer. The standard provides a single, principles based five-step model to be applied to all contracts with customers.

On 1 January 2019 Luapula limited entered into two (2) construction contracts. The company specializes in the construction of office buildings for various customers and has a policy of measuring progress using output method based on the work certified to date as a percentage of contract price. The following details relates to two (2) buildings as at 31December 2019;

	Building 1	**Building 2**
	K'000	K'000
Contract value	200	160
Costs to date	80	150
Estimated costs to complete	60	50
Billings	31.2	134
Date started	1st January	1st March
% of completion	45%	80%

Required:

(i) Discuss the criteria which must be met for a contract with a customer to fall within the scope of IFRS 15. (5 marks)

(ii) Show how each contract would be reflected in the statement of financial position and statement of profit or loss of Luapula for the year ended 31 December 2019. (5 marks)

(b) IFRS 8 *Operating Segments* sets out requirements for disclosure of information about an entity's operating segments and also about the entity's products and services, the geographical areas in which it operates, and its major customers.

Zam-fruits Plc trades in three business areas which are reported separately in its internal accounts provided to the chief operating decision maker. The results of these segments for the year ended 31 March 2020 are:

Revenue (K)	Profit/ (loss) (K)	Assets (K)	Liabilities (K)	Salaries (K)

Apple	170, 000	150, 000	168, 000	100,000	10,000
Banana	16, 000	50, 000	14, 000	200,000	5,000
Orange	*14, 000(16, 000)*		*18, 000300,000*	*1,000*	
Total	***200,000***	***184, 000***	***200, 000600,00016,000***		

Required:

(i) Explain what is meant by the 'Operating Segment', and 'Reportable Segment' (4 marks)

(ii) Explain which of the operating segments of Zam-fruits Plc constitute a 'reportable' operating segment under IFRS 8 Operating segments for the year ending 31 March 2019. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

IAS 33 *Earnings per Share* sets out requirements for the calculation and presentation of earnings per share in financial statements of listed entities. The requirements include the disclosure of basic earnings per share and, where an entity has potential ordinary shares in issue, the additional disclosure of diluted earnings per share in certain circumstances.

You are the Financial Accountant of Lindaboni, a listed entity on Lusaka Stock Exchange (LUSE) which prepares financial statements in accordance with International Financial Reporting Standards (IFRSs).The profit after tax for Lindaboni for the year ended 30 September 2019 was K15 million. At 1 October 2018 the company had in issue 36 million equity shares and a K10 million 8% convertible loan note. The loan note will mature in 2020 and will be redeemed at par or converted to equity shares on the basis of 25 shares for each K100 of loan note at the loan-note holders' option. On 1 January 2019Lindaboni made a fully subscribed rights issue of one new share for every four shares held at a price of K2.80 each. The market price of the equity shares of Lindaboni immediately before the issue was K3.80. The earnings per share (EPS) reported for the year ended 30 September 2018 was 35 ngwee. The corporate income tax rate is 25%.

The Chief Financial Officer has suggested that the company issue further convertible loan stock in order to raise funds for a new project. The Chief Executive Officer has stated that she doesn't want to issue convertible instruments as they always have a bad effect on diluted earnings per share and then the market will react badly, knowing that earnings per share will drop in the future.

Required:

(a) Explain the meaning of the term 'potential ordinary shares' and provide examples of potential ordinary shares. (3 marks)

(b) Explain why the diluted earnings per share must be disclosed. (3 marks)

(c) Comment on the validity of the Chief Executive Officer's comments. (5 marks)

(d) Calculate the (basic) EPS figure for Lindaboni (including comparatives) and the diluted EPS (comparatives not required) that would be disclosed for the year ended 30 September 2019. (6 marks)

(e) Explain how IAS 33 reflects the characteristic of comparability. (3 marks)

[Total: 20 Marks]

END OF PAPER

SUGGESTED SOLUTIONS

SECTION A

SOLUTION ONE

Peace Group

Consolidated Statement of Financial Position as at 31st March20

Assets	**K'000**
Non-current Assets	
PPE [212,000 + 300,000 – 4,800 (w7) + 3,840 FVA (w1)]	511,040
Other investments	2,000
Brand name	1,000
Goodwill (w2)	80,179
Investment in Associate [25,600 + 40,000 (w4) - 800, urp (w4)]	64,800
	659,019
Current Assets	
Inventories [268,000 + 40,000 - 2,400 URP, (w4)]	305,600
Trade Receivables [60,600 + 36,000 - 6,400 intra-group]	90,200
Cash and Cash Equivalents [2,000 + 8,000]	10,000
Total Assets	**1,064,819**
Equity and Liabilities	
Equity	
Equity shares of K1 each (116,000 + 40,000)	156,000
Share premium (40,000 x2.5)	100,000
Other component of equity (w6)	3,500
Group retained earnings (w4)	190,805
Equity attributable to the parent	450,305
NCI (w3)	52,610
	502, 915
Non-current Liabilities	
Deferred Consideration (w5)	54,545
Loan notes [76,000 + 136,000]	212,000
Current Liabilities	
Trade & Other Payables [244,959 + 36,000 - 6,400 intra-group]	274,559

Short-term Borrowings [12,800 + 8,000]	20,800
Total Equity and Liabilities	**1,064,819**

Available

(b) IFRS 10 Consolidated financial statements requires the parent company to prepare consolidated financial statements. Circumstances in which a parent entity may not be required to present consolidated financial statements under International Financial Reporting Standards:

1) Parent is a wholly-owned or partially-owned subsidiary and owners do not object to it not preparing consolidated financial statements.
2) Its securities are not publicly traded.
3) It is not in the process of issuing securities.
4) Ultimate parent publishes consolidated FS in accordance with IFRSs.
5) Immediate parent publishes consolidated FS in accordance with IFRSs.

1 mark per valid point, maximum marks 3 marks

Workings for Solution 1:

All workings were monetary items are presented are in K'000.

1. Group structure in Subsidiary - CI = 75% & NCI = 25%

Love's Net Assets Table	**At Acq**	**At Reporting**
	K'000	***K'000***
Equity Shares Capital	80,000	80,000
Retained Earnings	64,000	124,000
Property, Plant and Equipment*	8,000	3,840
Inventory	2,400	0
Brand name	1,000	1,000
	155,400	**208,840**

Post-acquisition increase in Net Assets=**K50.44 million** (K208.844 - K155.40 – K3 impairment loss).

*NBV of PPE at reporting date is **K3.84million** (i.e. K8m x $^3/_5$ x 80%).

(2) **Goodwill at acquisition of Love**

Cost of Investment:	
Contingent consideration (w6)	3,500
Cash	10,000
Share Exchange [75% x 80,000 x $^2/_3$ x K3.50]	140,000
Deferred Consideration [(75% x 80,000 x K1) ÷ 1.1^3]	45,079
Fair Value of NCI [25% x 80,000 x K2.00]	40,000
	238,579
Net assets at acquisition (w1)	(155,400)

		83,179
	Less impairment loss	(3,000)
		80,179
(3)	**NCI**	
	Fair Value at Acquisition (w2)	40,000
	25% Share of increase in Net Assets of K50.44 million (w1)	12,610
		52,610
(4)	**Group Retained Earnings**	
	Peace's per question	124,934
	Fair value gain on investments (2, 000 -1,000)	1,000
	Unwinding of Discount of Deferred Consideration	(4,959)
	Transfer of plant (w7)	(4,800)
	Peace's Share in increase in Net assets [(50.44 w1) x 75%]	37,830
	Peace's Share in Joy's Post Acquisition Profits [40% x 80,000+20,000]	40,000
	Unrealised Profit on Sales to Love [12,000 x $^{25}/_{125}$]	(2,400)
	Unrealised Profit on Sales to Joy [(10,000 x $^{25}/_{125}$) x 40%]	(800)
		190,805
(5)	**Deferred Consideration**	
	At 1 April 2011	49,586
	Unwinding of Discount	4,959
		54,545

W6. Contingent consideration –Equity

Fair value of contingent consideration 5,000, 000 x 20% x k3.5= K3.5 million

W7. Sold of plant 2 marks

- Reverse a gain (30,000 -24,000) = K6, 000 Debit retained earnings and credit plant.
- Reverse excess depreciation (K6, 000 /5) = k1, 200Credit retained earnings and Debit plant.
- Net adjustment (K6, 000 –K 1,200) = K4, 800, thereforeDebit retained earnings and credit plant with the net amount.

SOLUTION TWO

a) Gleko Plc.

Statement of profit or loss and other comprehensive income for the year ended 30 June 2020.

	'K'
Revenue (W1)	769,600
Cost of sales (w6)	(609,460)
Gross profit	160,140
Fair value loss of investment prop.	(2,000)
Administrative expenses	(63,800)
Distribution costs	(58,000)
Operating profit	36,340
Finance costs(4,500 + 2,082 w5)	(6,582)
Profit before tax	29,758
Income tax	(11,405)
Profit for the year	18,353
Other Comprehensive income:	
Revaluation surplus	6,000
Total comprehensive Income	24,353

b) Gleko Plc.

Statement of Financial position as at 30 June 2020

Non current assets	'K'
Intangible NCAs	
Brand (w3)	9,860
Tangible NCAs	
Property, plant and equip.	195,390
Investment properties	63,000
Total NCAs	268,250
Current assets	
Inventory	93,090
Trade receivables	111,650
Total current assets	204,740
Total assets	472,990
Equity and liabilities	
Equity shares of K1 each	145,000
Equity option	3,972
Retained earnings(46,940+18,353-5000)	60,293
Revaluation reserve (34,500 + 6,000)	40,500
Shareholder's funds	249,765
Non current liabilities	
4% convertible loan (w5)	26,910
Deferred tax (w4)	16,095
Deferred revenue (w1)	2,700
Total non current liabilities	45,705

Current liabilities

Trade payables	134,560
Bank overdraft	7,200
Deferred revenue (w1)	2,700
Current tax payable (w4)	33,060
Total current liabilities	177,520
Total equity and liabilities	472,990

WORKINGS

1) Revenue

Per trial balance	775,000
Less product + service	(36,000)
Add product (see below)	27,900
Add service	2,700
	769,600

Stand alone prices

Product	31,000
Service	9,000
Total	40,000

Allocation of transaction price to separate performance obligation:

Product 31,000/40,000 x 36,000 = 27,900
Service 9,000/40,000 x 36,000/3 yrs = 2,700 per annum
Therefore deferred revenue current 2,700
Non current 2,700

Note: revenue from service is of a nature of performance obligations that are satisfied over time. For example the value of service at the end of year 1 is only K2,700 to be recognized with value for product while the balance to be deferred into current and non current portion.

2) **Tangible NCAs**

	Freehold Land 'K'	Plant & Equipment 'K'	Investment Property 'K'
Cost/valuation b/f	76,000	239,830	65,000
Less accumtddep'n	-------	(106,430)	-------
Carrying amtb/f	76,000	133,400	65,000
Dep'n(15% x 133,400)	--------	(20,010)	--------
Carrying Amt before Rev	76,000	113,390	65,000
Revaluation surplus	6,000	---------	-------
Fair value loss	---------	---------	(2,000)
CA/ revalued amounts	82,000	113,390	63,000

3) **Brand Name**

Cost b/f	21,750
Less accmtdamortztn	(8,700)
Amortztncharge(21,750/10)	(2,175)

Carring amount c/f	10,875
Impairment loss	(1,015)
Fair value c/f	9,860

Brand impairment
The company's brand is impaired as its recoverable amount at 30 June 2020 was lower (9,860 which was higher than the value in use of 9,425.)than its carrying amount of 10,875 thereby giving an impairment loss of 1,015.

4) Income taxes

Current tax provision c/f	33,060
Less current tax provision b/f	(6,250)
Charge to p/l	26,810

Deferred tax liability c/f(30% x 53,650)	16,095
Less DT b/f	(31,500)
Credit to profit/loss	15,405

Total charge to profit and loss 11,405 (26,810 – 15,405)

5) Convertible loan note:

Pv of principal (30,000 x 0.735)	22,050
Pv of interest (4% x 30,000) x 3.315	3,978
Liability component	26,028
Equity component	3,972
Total proceeds	30,000

Amortization of liability component

	Balb/f	effective finance cost	interest paid	bal c/f
1.7.19	26,028	2,082	(1,200)	26,910
1.7.20	26,910	2,153	(1,200)	27,863

6) Cost of sales

Per trial balance	586,260
Dep'n of plant (w2)	20,010
impairment loss of brand	1,015
amortization of brand	2,175
Total	609,460

SOLUTION THREE

a) (i) Revenue grant is grant received in relation to financing of operational needs/expenses such as meeting wages and salaries bill. Capital grant is grant received in connection with the purchase of non current assets. Capital grants are accounted for using deferred credit method or deducting from cost of non current asset method.

ii) profit and loss extract for the year ended 31 March 2019

	K'000
Depreciation expense	15,000
Grant income	(4,500)

Statement of Financial Position as at 31 March 2019

NCA	
Property, Plant and Equipment(w1)	131,250
Non current liabilities	
Deferred credit (w2)	34,875
Current liabilities	
Deferred credit (w2)	4,500

b) (i) Complex Non Current Assets are items of PPE in which different components are each treated as a separate asset to make depreciation calculation easier. Further, the carrying amount of the asset is calculated by summing the carrying amounts of the separate component parts.

(ii) Profit & loss extract for the year ended 30 September 2019

	K'000
Engine depreciation (1,000+3000)	4,000
Engine impairment loss	113,000
Cabin fittings depreciation	25,000
Repairs to wing cost	15,000
Repainting exterior of plain	6,000

Statement of financial position as at 30 September 2019

NCA	
PPE(187,500+147,000)	334,500

iii) indications of impairment from Mahogany Airline scenario are as follows:

- Physical damage: this occurred when there was damage to engine beyond repair.
- Reduction in economic performance annually: this occurred when average hours of flying reduced from 1,600 to 1,400.

Workings

1) Carrying amount of PPE

	K'000
Property cost at 1.1.2019	150,000

Less depn to 1.4.2019 (3,750)
Less depn ye 31.3.20 (15,000)
CA at 31.3.2020 131,250

Depreciation is calculated using straight line method based on cost.

2) Grant amortization
Grant amount/Useful life of property

30% x 150,000/10 year = K4,500 per annum

Therefore: 1.1.2018-31.3.2018 1,125(3/12 x 4,500)
1.4.2018-31.3.2019 4,500

Deferred credit account

31.3.2018 profit/loss	1,125	1.1.2018	Bank	45,000
31.3.2018 Balance c/d	43,875			
	45,000		45,000	
		1.4.2018 bal c/d		43,875
31.3.2019 profit/loss	4,500			
31.3.2019 bal c/d	39,375			
43,875	43,875			
31.3.2020 p/loss	4,500	1.4.2019 balb/f		39,375
31.3.2020 bal c/d	34,875			

The breakdown of unamortized amount as at 31 March 2019 is as follows:

Current liability 4,500

Non current liability 34,875

3) CARRYING AMOUNT OF CABIN FITTINGS

	K'000
Cost on 1 April 2017	250,000
Less depreciation to 30 September 2017	(12,500) [K250,000/10 years x 6/12)
Less depreciation charge for yr to 30/9/18	(25,000)
Less depreciation charge for yr to 30/9/19	(25,000)

CA at 30 September 2019	187,500

Carrying amount of engine

Cost on 1 April 2017	120,000
Less depreciation to 30 Sept 2017	(2,000) [120,000/48,000 hrs x 800 hrs]
Less depreciation to 30 September 2018	(4,000) [120,000/48,000 x 1,600 hrs]
Less depreciation to 1 January 2019	(1,000) [120,000/48,000 x 400 hrs]
CA at 1 January 2019	113,000

Cost of new Engine at 1 January 2019	150,000
Less depreciation to 30 September 2019	(3,000) [150,000/50,000 hrs x 1,000 hrs
CA at 30 September 2019	147,000

SOLUTION FOUR

(i) The definition of what constitutes a **contract** for the purpose of applying the standard is critical. The definition of contract is based on the **definition of a contract in the USA and is similar to that in IAS 32 *Financial Instruments: Presentation*.** A **contract exists when an agreement** between two or more parties **creates enforceable rights and obligations** between those parties. The agreement does **not need to be in writing** to be a contract but the decision as to whether a contractual right or obligation is enforceable is considered within the context of the relevant legal framework of a jurisdiction. Thus, whether a contract is enforceable will vary across jurisdictions. The **performance obligation** could include promises which result in a valid expectation that the entity will transfer goods or services to the customer even though those promises are not legally enforceable.

The **first criteria set out in IFRS 15** is that the parties should have **approved t**he contract and are **committed** to perform their respective obligations. It would be questionable whether that contract is enforceable if this were **not the case**. In the case of oral or implied contracts, this may be difficult but all relevant facts and circumstances should be considered in assessing the parties' commitment. The parties need not always be **committed to fulfilling all of the obligations** under a contract. IFRS 15 gives the example where a customer is required to purchase a minimum quantity of goods but past experience shows that the customer **does not always do this and the other party does not enforce their contract rights**.

However, there needs to be evidence that the parties are substantially committed to the contract.

It is essential that each party's **rights and the payment terms** can be identified regarding the goods or services to be transferred. This latter requirement is the key to determining the transaction price.

The contract must have **commercial substance** before revenue can be recognised, as without this requirement, entities might artificially **inflate their revenue** and it would be questionable whether the transaction has economic consequences.

Further, it should be **probable** that the entity will collect the consideration due under the contract. An assessment of a customer's credit risk is an important element in deciding whether a contract has validity but customer credit risk does not affect the measurement or presentation of revenue. The **consideration** may be different to the **contract price** because of **discounts and bonus offerings**. The entity should assess the **ability of the customer to pay and the** customer's intention to pay the consideration. If a contract with a customer does not meet these criteria, the entity can continually re-assess the contract to determine whether it subsequently meets the criteria. Two or more contracts which are entered into around the same time with the same customer may be **combined and accounted for as a single contract**, if they meet the specified criteria. The standard provides detailed requirements for contract modifications. A modification may be accounted for as a separate contract or a modification of the original contract, depending upon the circumstances of the case.

(ii) Determination of the outcome:

Building 1; profit making contract (200- 80- 60) K60, 000
Building 1; loss (onerous) making contract (160 -150 -50) K40, 000

Income statement –extracts

	Building 1	Building 2	Total
	K'000	K'000	K'000
Revenue	90	128	218
Cost of sales	(63)	(168)	(231)
Recognised profit/ (loss)	27	(40)	(13)
Statement of financial position			
Costs incurred to date	80	150	230
Profit/(Loss)	27	(40)	(13)
Less billings	(31.2)	(134)	(165.2)
Contract asset	75.8	-	75.8
Contract liability	-	(24)	(24)

(b)

(i) Operating Segments

IFRS 8 defines an operating segment as follows. An operating segment is a **component** of an entity:

- that engages in business activities from which it may **earn revenues and incur expenses** (including revenues and expenses relating to transactions with other components of the same entity)
- whose operating results are **reviewed regularly** by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance and
- for which **discrete/seperate** financial information is available.

Reportable segments

IFRS 8 requires an entity to report financial and descriptive information about its reportable segments. Reportable segments are operating segments or aggregations of operating segments that meet specified criteria:

- its reported revenue, from both external customers and intersegment sales or transfers, is 10 per cent or more of the combined revenue, internal and external, of all operating segments; or
- the absolute measure of its reported profit or loss is **10 per cent or more** of the greater, in absolute amount, of (i) the **combined reported profit** of all operating segments that did not report a loss and (ii) the **combined reported loss of all operating** segments that reported a loss; or

- its assets are 10 per cent or more of the combined assets of all operating segments.

If the total **external revenue** reported by operating segments constitutes less than **75 per cent** of the entity's revenue, additional operating segments must be identified as reportable segments (even if they do not meet the quantitative thresholds set out above) until at least 75 per cent of the entity's revenue is included in reportable segments.

(ii)

	Revenue (%)	**Profit/ (loss) (%)**	**Assets (%)**
Apple	85%	75%	84%
Banana	8%	25%	7%
Orange	***7%***	***(8%)***	***9%***

Apple meets all 10% or above criteria. Its total revenue is 85%, total profit is 75% and total assets are 84%. It is a reportable segment according to IFRS 8.

Banana meets 10% or above criteria. Its total profit is 25%. It is a reportable segment according to IFRS 8, even if total revenue and total assets are below 10%.

Orange does not meet all 10% or above criteria. It is not a reportable segment according to IFRS 8.
(**Note:**based on managerial approach as per IFRS 8 Orange can also be reported separately if management believes the information would be useful to users of the financial statements).

Take note that **liabilities and salaries** is not part of the 10% test, therefore it was a distractor.

SOLUTION FIVE

(a) Potential ordinary shares are financial instruments or other contracts which may entitle the holder to ordinary shares. Examples of potential ordinary shares include convertible preference shares, share options, convertible loans and contingently issuable shares.

(b) The diluted earnings per share is calculated by computing what the earnings per share figure would have been if the potential ordinary shares had been converted into ordinary shares on the first day of the accounting period, or from their date of acquisition by the holder, if the potential ordinary shares were acquired during the current accounting period.

Diluted earnings per share must be disclosed so that existing and potential shareholders would know the future likely impact (acts as a future warning). The purpose of financial statements is not only to provide historical and current position and performance, but also to aid users to assess the future prospects of a company.

(c) The Chief Executive Officer is incorrect on two accounts:

- She assumes that convertible instruments always have a bad effect on diluted EPS. This is not the case. Diluted EPS assumes that a conversion takes place and as a result there are additional earnings, being the cost saving related to interest, and additional shares. If the additional earnings per additional share (i.e. additional earnings/additional shares) is greater than basic earnings per share, then the convertible instruments are anti-dilutive. In this case they would increase rather than decrease basic earnings per shareon conversion. Antidilutive convertible instruments are not taken into account when calculating diluted earnings per share.
- She further assumes that the 'the market will react badly, knowing that earnings per share will drop in the future'. EPS will only drop in the future if the instruments are converted (assuming that profit does not increase proportionately as a result of the new project). Diluted EPS gives a worst case scenario outcome, however it is not a definite outcome.

In reality, it is possible that the convertible loan notes, or a proportion of them, will be redeemed for cash which would not cause a dilution, however, IAS 33 *Earnings per Share* requires that maximum possible dilution has to be assumed when calculating the diluted EPS.

Despite this, the CEO seems mistaken as to what the diluted EPS figure actually means; it does not mean that this will be the EPS in the near future (or at the time of redemption). The future EPS will be based on future earnings and the (weighted average) number of shares actually in issue in that future year. Rather, the diluted EPS figure should be seen as a sort of warning. It is saying that, based on existing circumstances, if the dilution had already taken place, i.e. that the convertible shares had already been redeemed for equity (at the maximum possible number of new shares), the diluted EPS as disclosed would have been the figure reported as the actual (basic) EPS.

(d)
Theoretical ex-rights price will be:
4 shares at K3.80 =15.2
1 share at K2.80 =2.8
18.0 / 5 = K3.60

Weighted average calculation:
Date Narrative No. shares (m) Time period Bonus fraction Weighted average (m)

1.10.2018 b/d	36 × 3/12 × K3.80/K3.60	9.5	
1.1.2019Rights issue 9			
	45 × 9/12	nil	33.75
			43.25

Basic EPS for the year ended 30 September 2019 is therefore:
K15m/43.25m = 34.7ngwee

Comparative EPS = 35ngwee × 3.6/3.8 = 33.2ngwee

Diluted EPS:
The additional earnings will be K800,000 (K10m × 8%) less 25% tax = K600,000
The additional shares will be (10m / 100) × 25 = 2.5m
The net effect is therefore K600,000 / 2.5m = 24ngwee. This is below basic EPS and therefore dilutive.
Earnings = K15.6m
Shares = 43.25 + 2.5 = 45.75
Diluted EPS = 34.1ngwee

(d) IAS 33 provides a methodology for the calculation of basic and diluted EPS, so ensuringthat one company's calculation of EPS is comparable with another's. Iaddition it requires comparatives to be restated where there has been a bonus or rights issue in the year on the basis that the same number of ' free shares' were in issue in the previousyear.

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.2: MANAGEMENT ACCOUNTING

TUESDAY 15 DECEMBER 2020

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This Question is compulsory and MUST be attempted.

<u>QUESTION ONE</u> – (COMPULSORY)

The Blue Lagoon Plc (BL Plc) is a divisionalisedorganisation which operates a standard costing and budgetary planning and control system in which the preparation of detailed operating budgets is undertaken by the divisions themselves after centrally determined profit targets have been communicated to them.

The Matelo Division of the company produces and sells a standardised component which is sold externally and internally to other divisions.

This division operates a standard costing system with 13 four-weekly accounting periods each year. The following data has been provided.

(i) The standard cost , excluding fixed overheads , for one unit of the product isas follows :

		K
Direct material X	0.72 kg @ K5.25 per Kg	3.780
Direct material Y	0.014litres @ K10.50 per litre	0.147
Direct material Z	0.045litres@ K 2 per Litre	0.090
Direct Labour	0.5hrs @ K10 per hour	5.000
		9.017

(ii) Standardised selling price per unit product : K15
(iii) Budgeted labour force:210 persons, each working 48 hours per week
(iv) Budgeted fixed overheads: K 7,862,400 per annum
(v) Budgeted sales are equal to budgeted production

Data in respect of actual results for period2 are as follows:

(vi) Actual production and sales 80,000 units
(vii) Direct materials:

	Opening Inventory	Closing <u>Inventory</u>	<u>Purchases for period 2</u>
Material X	14,600 Kg	18,040 Kg	61,400Kg @K5.30
Material Y	600 litres	800 litres	1,305 litres @K9.50
Material Z	1,210 litres	900 litres	3,000 litres @ K2.25

(viii) Direct Labour :
Actual hours: 41,000 hours (including 410 hours of unbudgeted idle time)Wages paid K399,750
(ix) Fixed overheads incurred: K580,000
(x) Identical opening and closing inventories were held of work in progress and finished goods.
(xi) All sales were made at the budgeted selling price.

Note that the direct material inventory accounts are carried at standard cost. Any price variance is transferred to the income statement in the period in which the purchase is made.

Required:

(a) (i) Calculate for the Matelo Division, the annual break-even point in units and value under the assumption that labour is also a fixed cost. (4 marks)

(ii) Calculate for period 2

- Material price and material usage variances
- Labour rate, idle time and efficiency variances
- Fixed overhead expenditure, capacity and efficiency variances
- Sales price and sales volume contribution variances

(20 marks)

(b) Mutentemuko Division (MDivision) of the BL Plc manufactures a single product which Sellsfor K100 each.They are currently preparing a detailed budget for July to September.

Relevant data is as follows:

(i)

	Jul	Aug	Sept	Oct
Sales units	8,000	10,000	11,000	12,000

(ii) Inventories
Finished goods inventories are valued at variable cost in the management accounts, and are budgeted at the end of each month to be 30% of the units required for the following month's sales.

Raw material inventories are 2,000 kg at the end of June and are budgeted to increase by 200 kg each month.

(iii) A product uses 10 kilos of material at a cost of K1 per kilo.
Material suppliers are paid 50% in the month of purchase and 50% in the following month.

(iv) Labour standard cost per unit is K9.50. Wages are paid as they are incurred.

(v) Other budgeted fixed expenditure are to be paid as they are incurred:

July	August	September
K320,000	K280,000	K300,000

(vi) All sales are made on credit: 27% of customers pay in the month of sale, 70% in the following month and3% of all sales result in irrecoverable debts.

(vii) Non-current assets are depreciated on a straight line basis over five years, assuming no residue value.Utility motor vehicles are to be sold for K11,550 for scrap in July and sale proceeds will be received in August.

(viii) Forecast balances at the end of June are as follows:

Non-current Assets:	K1,600,000	Payables for raw materials:	K44,000
Bank balance:	K110,000	Bank Loan:	K150,000
Receivables:	K260,000	Provision for irrecoverable debts:	K12,000

(ix) M Division pays 8% interest on its bank loan twice in a year in January and July. Thedividends of K5,550 are expected to be received in September.

(x) Corporation tax amounting to K200,000 will be paid to the Zambia Revenue Authority in September.

(xi) M Division participated in the auction of Treasury Bills by the Bank of Zambia and is expected to receive K33,800 in July.

Required:

Prepare a cash budget for M Division for July to September.(16 marks)
[Total: 40 Marks]

SECTION B

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

QUESTION TWO

Shakes Plc (S Plc) is a conglomerate involved in the production of a wide range of products. Two of its divisions/subsidiaries are involved in chemical processing (Division X) and specific order costing (Division Y) activities.

Division X produces three products from a single process. In period 1, K400, 000 was incurred for the following outputs

Product:	M1	M2	M3
Output	16,000Kg	40,000Kg	50,000 litres
Selling price	K10 per Kg	K10 per Kg	K20 per litre

M1,M2 and M3 can be enhanced by being processed further after the initial process by using specialised and skilled labour costing K5per hour. M1, M2 and M3 can be processed further into MM1,MM2 and MMM3. Selling prices and labourrequirements are as below.

Products	MM1	MM2	MM3
Labour hours	2hrs/Kg	3hours/Kg	4 hours/litre
Selling price	K40/Kg	K46/Kg	K 44/ per litre

Further processing results into 10% loss, on the inputs.

Required:

(a) (i) Distinguish between process costing and job costing. (4marks)

(ii) Using the sales value method, apportion period 1 joint costs to products M1, M2andM3. (3 marks)

(iii) Assuming M1, M2 and M3 are processed further advise which products should be processed further. (5 marks)

(b) Division Y of the S Plc carries out jobs to customer specifications.A customer requested Division Y to manufacture a purpose-built plant in three separate jobs in the month of October 2019. The costs incurred were as follows:

Job

	I	II	III
Selling price of job	K6, 636	K5, 500	K3, 900
Direct materials	K1, 048	K1, 342	K764
Direct labour			
- Skilled hours	316hrs	340hrs	32hrs
- Semi-skilled hours	632hrs	380hrs	60hrs
Site expenses	K236	K340	K50
Job completed on 31 October (Completion degree in %)	100%	75%	20%

Additional relevant notes to the jobs

- Direct materials for the completion of the jobs have been fully recorded; i.e. no further material will be purchased as they are enough for the remaining work.
- Direct labour is paid as follows:
  - Skilled labour: K6 per hour.
  - Semi-skilled labour: K3.50 per hour.
- Site expenses vary with the level of output.
- Monthly costs of K880 are incurred as administration expenses for all the three jobs. These expenses should be allocated to the jobs on the basis of direct labour hours.

Required:

(i) Compute the profit or loss made by the company on the Job I (3 marks)
(ii) Estimate the profit or loss made by the company on Jobs II and III. (5 marks)
[Total:20 Marks]

QUESTION THREE

MakaliLtd manufactures three products R,S and T for which the following information is relevant.

	R	S	T	Total
Production and sales (units)	30,000	20,000	8,000	
Raw materials usage (units)	5	5	11	
Direct material cost per unit	K20	K15	K11	K988,000
Direct labour hours per unit	1	2	1	78,000
Machine hours per unit	1	1	2	66,000
Direct labour rate per hour	K10	K9	K6	
Number of production runs	5	4	4	13
Number of deliveries	10	3	2	15
Number of receipts	15	25	180	220
Number of production orders	10	15	20	45

Overhead costs:	K
Set up cost	30,000
Machines	550,000
Receiving	425,000
Packing	250,000
Engineering	324,000
Total costs	1,579,000

The Company operates an engineering schedule that is based on the production runs.

The Company has previously allocated overheads to products on the basis of direct labour hours and would now like to redesign the system and change to an activity based costing.

Required:

(a) Calculate the total product costs using the labour hour basis for absorbing overheads into products. (6 marks)

(b) Calculate the selling price for each product assuming the company applies a 20% profit mark-up policy. (3 marks)

(c) Calculate the total product costs using activity based costing. (9 marks)

(d) Calculate the selling price for product R based on a 25% profit margin.(2 marks)

[Total: 20 Marks]

QUESTION FOUR

(a) A company that specializes in selling car parts has supplied the following information for one type of tyres.

Average sales per day	240 units
Maximum sales per day	280 units
Minimum sales per day	220 units
Lead time	2 – 4 days
Re - order quantity	550 units

Required:

Calculate the following inventory management levels:

(i) Re-order level (2 marks)

(ii) Minimum level (2 marks)

(iii) Maximum level (2 marks)

(b) The company has had the following transactions for one of its raw materials during the month of February 2020.

1/02	Opening inventory	60 units valued at a total of K5400.
3/02	Purchases	1200 units at K 95 per unit.
7/02	Issues	800 units
10/02	Purchases	1100 units at K98 per unit
13/02	Issues	650 units
18/02	Issues	400 units
25/02	Purchases	700 units at K97 per unit
28/02	Issues	350 units.

Required:

Calculate the total cost of materials issued during the month, using;

(i) Last In First Out (LIFO) and
(ii) First In First Out (FIFO)
(4 marks)

(c) Outline three disadvantages of using the LIFO method of inventory valuation. (3 marks)

(d) The company in (b) above uses the raw material to manufacture three products, A, B and C whose budgeted production for the period is 100, 150 and 80 units respectively.

The following information is also relevant:

The material usage for the products is as follows; 4 units for A, 5 units for B and 4 units for C.

	A	B	C
Selling price	K450	K500	K450
Variable costs (including material)	K320	K250	K180

The material supply for the period is limited to 950 units.

Required:

Calculate the production budget that would maximize profits for the period.
(7 marks)

[Total:20 Marks]

QUESTION FIVE

(a) Musa Ltd operates in a competitive manufacturing industry. It produces sub-assembliesand accessories for motor car dealers but at times it is compelled tooutsource some of its production due to capacity constraints.

Required:

Explain the purpose of a "make or buy" decision and detail how this purpose may be achieved. (6 marks)

(b) Musa Ltd is considering whether to supply a store with goods on a one-year contract to the value of K140, 000 although the costings established for the contract suggest that a loss would result.

	K
Materials:	
- Material A	28,000
- Material B	14,000
Operating labour	60,000
Supervisory labour	24,000
Depreciation of machinery	20,000
General overheads	42,000
Total cost	188,000
Revenue	140,000
Loss	(48,000)

The following information is established.

(i) Material A is already in inventory, having been purchased some time ago at a cost
of K28,000. It cannot be used for any other purpose, and if not used on this contract would have to be disposed of at a cost to the business of K4,000.

(ii) Material B was bought for K14,000 last year. It could be used on existing orders as asubstitute for Material Z which is not in inventory and which would cost K18,000 to buy.

(iii) Operating labour would consist of three workers who would be transferred from otherdepartments in the business. These workers earn K400 per week each. Their place in the other departments would be taken by three new employees working on a one year contract who would each be paid K440, including necessary overtime. Assume 50 weeks per year.

(iv) The cost of supervisory labour (K24,000) is an allocation of part of the salary of a Supervisor who is in charge of several production lines.

(v) The machinery which would be used to produce the toys was purchased nine years ago at a cost of K200,000, with an estimated life of ten years. The depreciation charge in the costing represents the charge for the final year of the

machinery's life. The machinery has been idle for some time, and if not used on this order the machinery would be scrapped for a revenue of K4,000. After use on this contract the machinery would have no value, and would have to be disposed of at a cost estimated at K3,000.

(vi) General overheads represent an allocation to the contract of part of the firm's total overheads, based on an absorption rate of 100% of material costs. There are no specific general overheads which the contract would incur.

Required:

Advise whether on financial grounds the contract should be undertaken.

Your calculations must be supported by clear statements of the reasons why a particular figure is included or excluded, and of any assumptions that you make. (14 marks)

[Total: 20 Marks]

END OF PAPER

SUGGESTED SOLUTIONS

SECTION A

SOLUTION ONE

(a) (i) Break Even point = Total fixed costs (FC) / Contribution per unit

Total FC K7, 862,400
Labour FC (210 X 48hrs X 52 weeks) = K5, 241,600
13,104,000

B.E.P (units) = K13, 104,000 / [K15 – (3.78 + 0.147+0.09)]
= K13, 104,000 / K10.983
= 1,193,117 units

B.E.P (value) = 1,193,116.64 X K15
= K17, 896,750.

(a) (ii)(1) Material price variances

	X	Y	Z
	K	K	K
Standard price	5.25	10.50	2.00
Actual price	5.30	9.50	2.25
Variance	0.05(A)	1.00(F)	0.25 (A)
	X	X	X
Purchased quantity	61,400kg	1,305 litres	3,000
	=K3, 070(A)	K1, 305(F)	K 750 (A)

(a)(ii)(2) Material usage variances

	X	Y	Z
	Kg	litres	litres
Std. usage (80,000 X 0.72/0.014/0.045)	57,600	1,120	3,600
Actual usage (W.1)	57,960	1,105	3,310
Variance	5.25 (A)	10.50 (F)	2.00 (F)
	K1, 890 (A)	K157.50 (F)	K580 (F)

W.1: Actual usage

	X	Y	Z
Opening inventory	14,600	600	1,210
Add: purchases	61,400	1,305	3,000
Less: closing inventory	(18,040)	(800)	(900)
Issued production	57,960	1,105	3,310

(a)(ii)(3) Labour cost variance

Rate	Idle time	Efficiency
K		Hours

Std. 41,000 X K10 410,000 410hrs (A) (80,000 X 0.5) 40,000
Actual 41,000 hrs399,750 X K10 40,590
10,250 (F) = K4, 100 (A)590 (A)

X K10
= K5, 900(A)

(a)(ii)(4) Fixed overhead cost variances

	Expenditure	Capacity	Efficiency
	K		
Std. (K7, 862,400/13 periods)=	604,800	40,320 (W.2)	590hrs (A)
Actual	580,000	40,590	X
	24,800 (F)	270 (F)	K15
		X K15	
		= K4, 050 (A)	= K8, 850(A)

(W.2) Budgeted labour hours per period

$$\frac{\text{Budgeted Fixed Overhead in period}}{\text{Budgeted hours per period}} = \frac{K7,862,400 \div 13}{210 \text{ hrs X } 48 \text{ X } 4 \text{ weeks}}$$

$$= \frac{K604,800}{40,320 \text{ hrs}}$$

= K15/hr

(W.3.) Budgeted sales units per period.

$$\frac{\text{Budgeted labourhours in the period period}}{\text{Std. labour hours per unit}}$$

$$= \frac{40,320 \text{ hrs}}{0.5\text{hr per unit}}$$

= 80,640 units

(a)(ii)(5) Sales price and sales volume contribution variances

Sales pricesales volume

Std price	K15		Budgeted sales	80,640 (W.3)
Actual	K15		Actual sales	80,000
Variance	K0		variance	640 (A)
				X
				K10.983
				= K7, 029.12 (A)

(b) Monthly Cash Budgeted for July to September 2020

Month (K'000)

	Jul	Aug	Sept
RECEIPTS			
Credit sales	464	830	997
Dividends			5.550
Treasury Bills interest	33.80	-	-
Sale of motor vehicle	-	11.55	- .

497.80841.551,002.55

PAYMENTS

Material purchases (W.2)	87.10	94.70	108.20
Wages (W.3)	81.70	97.85	107.350
Other fixed expenditure	320	280	300
Interest	6.00	-	-
Corporation tax	-	-	200

494.80472.55515.55

Receipts less Payments	3.00	369	487
Opening Balance	110.00113.00482.00		
Closing Balance	113.00482.00969.00		

Workings

	Jul	Aug	Sep	Oct
W.1 Receipts				
Sales units	8,00010,00011,000			
Sales revenue @ K100 (K'000)	8001,0001,100			
Current month (27% X 800/1,000/1,100)	216	270	297	
Previous month's sales (260-12/(70% X 800/1,000)	248 560 700			

464 830 997

W.2 material purchases

July.Aug.Sept.Oct.

Sales units	8,000	10,000	11,000	12,000
Add: Closing inventories (30% x next month sales)	3,000	3,300	3,600	
Less: opening inventories (30% x 8,000/10,000/ 11,000)	(2,400)(3,000)(3,300)			
Production units	8,600 10,30011,300			
	X	XX		
Kgs per unit	10	10	10	
Usage in kgs	86,000	103,000	113,000	
Add:Closing inventories	2,200	2,400	2,600	
Less: Opening inventories	(2,000)(2,200)(2,400)			

86,200103,200113,200

	X	XX	
K1 K1K1			
Purchase value	86,200103,200113,200		
Payment			
-Current month 50%)	43,100	51,600	56,600
-Next months (50%)	44,000	43,100	51,600
87,100 94,700 108,200			

W.3 Wages

K9.5 X 8,600/10,300/11,300 K81, 700 K97, 850 K107, 350

SOLUTION TWO

(a)(i) a process costing system method is used in those industries where masses of similar products or services are produced . Products are produced in the same manner and consume the same amount of direct costs and overheads. It is therefore unnecessary to assign costs to individual units of output. Instead, the average cost per unit of output is calculated by dividing the total cost assigned to a product or service for a period by the number of units of output for that period. In other words, process costing is the costing method used where all units are identical and the cost per unit is found by averaging out the total cost over all units produced

In contrast, job costing relates to a costing system where each unit or batch of output is unique. This creates the need for the cost of each unit to be calculated separately.

Job costing is the costing methods used where each cost unit is separately identifiable.

- Each job is given a number to distinguish it from the other jobs
- Costs for each job are collected on a job cost sheet or job card.
- Material costs for each job are determined from material requisition notes.
- Labour times on each job are recorded on a job ticket, which is then costed and recorded on the job cost sheet. Some labour costs, eg overtime premium or the cost of rectifying sub-standard output, might be charged either directly to a job or else as an overhead cost, depending on the circumstances in which the costs are arisen.
- Overhead is absorbed into the cost of jobs using the predetermined overhead absorption rates.

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(a)(ii)

	Products			
	M1	M2	M3	Total
Output	16,000 Kg	40,000 Kg	50,000 litres	K'000
Sales price	K10	K10	K20	
Sales revenues	K160, 000	K400, 000	K1, 000,000	1,560
Joint apportionment				
(16:40:100)	K41, 026	K102, 564	K256, 410	400

(a)(iii) Further Processing Decision

Enhanced products:	MM1	MM2	MM3
	K	K	K
Final sales value (net off 10% loss)			
90% X K40/K46/K44	36	41.4	39.6
Split-off sales value	10	10.0	20.0

Incremental Revenues	26	31.4	19.6
Incremental labour costs			
(K5 X 2hrs/3hrs/4hrs)	(10)	(15.0)	(20.0)
Net gain / (loss)	16	16.4	(0.4)

Advice

On financial grounds, only products M1 and M2 should be further processed into MM1 and MM2 as they give net positive gain per litre further processed. However, product MM3 should not be further processed because of a loss of 40 ngwee per litre processed. It is better sold off at the split off point.

(b)

Job I A/C

	K		K
Direct materials	1,048	Cash – (sales revenue)	6,636
Direct labour			
Skilled (316hrs X K6.0)	1,896		
Semi-skilled (632hrs X K3.5)	2,212		
Site expenses	236		
Admin: ExpensesK0.5 (W.1) X 948hrs	474		
Income statement - profit	770		
	6,636		6,636

Working 1

$$\frac{\text{Admin. Expenses overhead}}{\text{Labour hours}} = \frac{K880}{(316+632+340+380+32+60)}$$

Absorption Rate K880/1,760 hrs = K0.5/hrs

(ii) Estimated profit /loss made on Job II and III

Job II

	K	K
Direct materials		1,342
Direct labour		

Skilled (340hrs X K6.0)	2,040	
Semi-skilled (380hrs X K3.5)	1,330	
Site expenses	340	
Admin: Expenses:720hrs x K0.5	360	
	4,070	
Projected costs to completion [$^{25}/_{75}$ X 4070]	1,357	
		5,427
Total costs		6,769
Job II price		5,500
Projected loss		(K1, 269)

Job III

	K	K
Direct materials		764
Direct labour		
Skilled (32hrs X K6.0)	192	
Semi-skilled (60hrs X K3.5)	210	
Site expenses	50	
Admin: Expenses:92hrs x K0.5	46	
	498	
Projected costs to completion [80/20X 498]	1,992	
		2,490
Total costs		3,254
Job III price		3,900
Projected loss		646

SOLUTION THREE

(a)

Product	R	S	T
	K	K	K
Materials	600,000	300,000	88,000
Labour	300,000	360,000	48,000
Overheads	607,308	809,743	161,949
Total cost	1,507,308	1,469,743	297,949

(b)

Product	R	S	T
Total costs (part a)	1,507,000	1,469,743	297,949
Output (units)	30,000	20,000	8,000
Cost per unit	K50.24	K73.49	K37.24
Profit (20% mark up)	K10.05	K14.70	K7.45
Selling price	K60.29	K88.19	K44.69

correct selling price)

(c)

Product		R	S	T	
		K	K	K	
Material		600,000	300,000	88,000	
Labour		300,000	360,000	48,000	
Overheads:	Total				basis
Set up	30,000	11,538	9,231	9231	prod runs
Machines	550,000	250,000	166,667	133,333	machhrs
Receiving	425,000	28,977	48,295	347,728	receipts
Packing	250,000	55,556	83,333	111,111	orders
Engineering	324,000	124,616	99,692	99,692	prod runs
Total		1,370,687	1,067,218	837,095	correct overhead figure .

(d) Product R

Total cost	K1,370,687
Output	30,000 units
Cost per unit	K45.69
Profit	K15.23
Selling price	K60.92

SOLUTION FOUR

(a) (i) Re-order level = maximum usage × maximum lead time
= 280 × 4 = **1,120 units.**

(ii) Minimum level = re-order level – (average usage × average lead time)

= 1,120 – (240 × 3) = **400 units**.

(iii) Maximum level = re-order level + re-order quantity – (min usage × min lead time)
= 1,120 + 550 –(220 × 2)=**1,230 units** .

(b) (i) LIFO method.

7/02	800 units:	800 × K95 = K 76,000
13/02	650 units:	650 × K98 = K 63,700
18/02	400 units:	400 × K98 = K 39,200
28/02	350 units:	300 × K97 = K 33,950
Total value of issues		**K212,850**

(ii) FIFO method.

7/02	800 units:	60 × K90 = K 5,400	
		740×K95 = K70,300	
			K 75,700
13/02	650 units:	460 ×K95 = K 43,700	
		190 ×K98 = K 18,620	
			K62,320
18/02	400 units	400 ×K98 = K 39,200	
			K39,200
28/02	350 units	50 × K98 = K4,900	
		350×K98 = K29,100	
			K34,500
	Total value of issues	**K 211,720**	

(c) Disadvantages of using the LIFO method.

- LIFO is not a valid method for financial reporting.

- LIFO is more often the opposite of what is physically happening and can therefore be difficult to explain to managers.
- LIFO can lead to higher cost of sales and lower profit reported in times of high inflation.

(d) Profit maximizing output

Product	A	B	C	
	K	K	K	
Selling price	450	500	450	
Variable costs	(320)	(250)	(180)	
Contribution per unit	130	250	270	(1)
Material required per unit	4	5	4	(1)
Contribution per unit of material	32.5	50	67.5	(1)
Product ranking	3rd	2nd	1st	(1)

Profit maximizing output

	Output (units)	material usage
C	80	320
B	126	630
		950

SOLUTION FIVE

(a)

A make or buy decision is carried out to determine whether an organization should make its own requirements for components, or should purchase them from an external supplier. The decision will involve determining the variable costs of internal manufacture, including any opportunity costs, and comparing the total of these costs with the price quoted by the supplier. Managers' final decisions may not be based on price alone - other factors to be considered include quality of product, and reliability of supply.

Once a decision has been taken for each component, the situation should be reviewed regularly to ensure that the data and information used for the original decision are still valid, or whether the decision should now be altered in the light of any changes.

(b) Relevant cost of contract

		Note	K
Material	A	1	(4,000)
	B	2	18,000
Operating labour		3	66,000
Supervisory labour		4	–
Cost of machinery		5	7,000
General overheads		6	–
Relevant cost			87,000
Revenue			140,000
Contribution from contract			53,000

Advice

On financial grounds the contract should be undertaken because it produces a contribution.

Notes

1 The original cost of Material A is sunk and not relevant. Using Material A on this contract saves the cost of disposal of K4,000.

2 The use of Material B requires expenditure of K18,000 on buying Material Z, which would not otherwise be incurred. The original cost of Material B is sunk.

3 The incremental cost incurred on labour as a result of this contract will be the cost of employing three new workers: 3 x K440 x 50 weeks = K66,000.

4 No extra cost will be incurred on supervisory labour. The K24,000 salary will be incurred anyway.

5 The original cost and depreciation of the machinery are sunk costs and not relevant. The relevant cost of using the machinery on this contract is:

	K
Scrap revenue forgone - opportunity cost	4,000
Disposal cost to be incurred in one year	3,000
	7,000

6. General overheads will not be affected by this contract. Therefore they are not relevant.

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.3: AUDITING PRINCIPLES AND PRACTICE

THURSDAY 17 DECEMBER 2020

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted

QUESTION ONE

Your firm, Kafeka& Co., has been appointed by Bayuni Ltd to undertake the annual audit for the year ended 31 January 2018.Bayuni Ltd processes and sells various meat products to both retailers and individual customers. The company owns twenty (20) retail shops spread throughout the Republic of Zambia. This is the first client in this industry that your firm will be auditing. It is a highly competitive industry with several large players entering it.

You are the Audit Senior in charge of planning the audit of Bayuni Ltd. The Audit Manager has asked you to have a meeting with the client and identify any relevant audit risks so that the audit plan can be completed, and recommend audit procedures to be carried out on the credit sales system and receivables balance.

From your initial meeting you ascertain the following:

Sales ordering and dispatch

1. Credit limits and sales pricesare set by the Marketing Manager according to a standard formula and are automatically applied by the computer system.
2. Customers place orders with the Marketing Manager, who passes the order to the Marketing Clerk.
3. The Marketing Clerk inputs the customer order details into the company's computer system which is integrated with the company's inventory control system.
4. The computer prints out details on the availability of ordered goodsand whether the order will not take the customer over their credit limit.
5. Based on the print out, the Marketing Manager manually approves or disapproves the order.
6. If the order is approved, the Marketing Manager signs on the order and tells the customer to take it to the dispatch office.
7. A standalone PC in the dispatch department is used to check the arithmetical accuracy of the figures on the order and the warehouse staff pack the goods. A goods dispatch note (GDN) is raised accordingly.
8. The GDNis sent to the marketing department.

Invoicing

1. Based on the GDN, the marketing team issues a sequentially numbered sales invoice. VAT is computed automatically.

2. A copy of the invoice is sent to the accounts department.

Accounting for receivables

1. The Accounts Clerk enters the invoice and the system automatically posts the details to the sales ledger.
2. The company's standard credit terms are payment one month from the order.
3. Most customers pay by bank transfer.
4. Statements are sent to customers monthly.
5. A manual sequence check of invoices is periodically performed by the Finance Director.

For the first time, you have decided to use audit software to assist with the audit of the receivables balance.

Required:

(a) Explain the main audit risks associated with audit of Bayuni Ltd. (6 marks)

(b) Using the information given in the scenario:

(i) Identify and explain ten (10) internal control weaknesses in the sales system. (15 marks)

(ii) For any six (6) controls expected in the sales system of Bayuni Ltd, describe the tests of control that should be undertaken. (10 marks)

(c) Describe five (5) substantive procedures you should perform to obtain sufficient appropriate evidence in relation to the receivables balance in Bayuni Ltd. (5 marks)

(d) Explain the limitations of using computer programs to assist in the verification of receivables balances at the year-end. (4 marks)

[Total: 40 Marks]

SECTION B

Attempt any THREE (3) questions in this section.

<u>QUESTION TWO</u>

Walker Ltd is a small company which supplies computer accessories to government ministries. It recently established an audit committee in which the Board Chairman is a member.

You are an Audit Manager in Kwenda Accountants and you are currently planning the final audit of Walker Ltd. Information on the company's financial performance is available as follows:

<u>Statement of profit or loss (extract) for the year ended 30 June</u>

	2018	2017
	K	K
Revenue	900,000	600,000
Gross profit	330,000	300,000

<u>Statement of financial position as at 30 June</u>

Non-current Assets	340,000	150,000
Net Current Assets	(30,000)	35,000
Share capital	100,000	100,000
Non-current liability	180,000	20,000

Additional information:

1. The Managing Director resigned during the year and has not been replaced.
2. Walker Ltd is negotiating with the Zambia Revenue Authority (ZRA) for a tax clearance certificate (TCC) which is required bythe Zambia Public Procurement Authority (ZPPA).

Required:

(a) Explain what is meant by 'audit plan' and state its importance to an audit.

(5 marks)

(b) Describe the responsibilities of the audit committee and state whether it is appropriate for Walker Ltd to have the Chairman of the Board as a member of the audit committee.

(8 marks)

(c) Evaluate the ability of Walker Ltd as a going concern. (7 marks)

[Total: 20 Marks]

<u>QUESTION THREE</u>

Cast Plc is an agricultural company which is divided into vegetables and livestock divisions. Each division has its own petty cashier. Management has restricted the work of the internal

audit department to weekly reviews of the petty cash, because this is considered as a sensitive area and claims made each week are significant. The company operates an imprest system. The new Chairman of the Audit Committee feels the internal audit department is significantly under-utilised. He is sure that more work can be done by the internal audit department in relation to internal controls and other areas of the company.

The petty cash for each division is reimbursed up from the main bank account. The petty cash limit is K30,000, so that each re-imbursement is equal to the amount paid out in the period.

You are an Auditor in Plaster Associates responsible for the audit of petty cash. At the time of audit, the details at one of the divisions were as follows:

	K
Cash on hand	12,000
Plus I Own You (IOUs)	4,000
Plus Voucher payments	14,000
Total	30,000

Your preliminary assessment of the internal audit department's work is that it is reliable.

Required:

(a) Explain themeaning of internal controls and their importance to an organization. (4 marks)

(b) Explain six (6) types of activities normally carried out by internal audit departments. (6 marks)

(c) Describe five (5) control activities that you might expect to findin the petty cash system. (5 marks)

(d) Recommend five (5) tests of controls you would carry out on the petty cash system of Cast Plc. (5 marks)

[Total: 20 Marks]

QUESTION FOUR

You are the Audit Manager in the audit of the financial statements of Landa Ltd, for the year ended 31 March 2018. During the course of the audit of Landa Ltd, the following matters were brought to your attention:

1. **Cash and bank**

   The Finance Director has notified you that an error occurred in the closing of the cash books at the year end. Rather than it closing on 31 March, it accidentally closed on 1 April 2018 at 9:00 hours.Receipts amounting to K3,000have, therefore, been included wrongly in the cash and bank balance as at 31 March 2018. The total receipts for the year were K5,600,000 and the cash and bank balance as at 31 March 2018 was K600,000.

2. **Non-current assets**

   Non-current assets have historically been low due to non-revaluation of assets. However, during the year a revaluation was carried out and the figure is now material. The Audit Senior has identified a material misstatement in the revaluation. The non-current assets represent a material figureof the financial statements.

3. **On-line sales**

   During the year, the company experienced significant load-shedding. The computer system malfunctioned on a number of occasions and online sales could have been misstated. You have concluded that the possible effects of undetected misstatements, if any, could be material but not pervasive.

4. **Inventory**

   The company's inventory is carried in the statement of financial position at K90,000. Management has stated the inventory at the lower of cost and net realisable value (NRV). If the inventory had been valued at the higher of cost and net realisable value (NRV), the amount would have been K140,000.

   Required:

   (a) Discuss the importance of sufficient and appropriate evidence in an audit.
(2 marks)

   (b) Explain the various types of audit opinions. (8 marks)

   (c) State, with reasons, the type of audit opinion to be given for each matter, assumingmanagement does not make any amendments where necessary. (10 marks)

[Total: 20 Marks]

QUESTION FIVE

You are anAudit Senior in Ndalu Associates and you are planning the audit of Charcoal Ltd, which specialises in the provision of Boiler spares to breweries and individuals. Ndalu Associates has audited Charcoal Ltd for eight (8) years.

The following issues have arisen in connection with the audit of the financial statements for Charcoal Ltd for the year ended 28 February 2018.

1. Last year, the engagement audit team members attended a traditional ceremony in one of the provinces in the Republic of Zambia. All expenses were paid for by Charcoal Ltd.
2. The wife of the Engagement Partner recently joined Charcoal Ltd as Finance Director.
3. The firm has continued to audit Charcoal Ltd mainly because the audit fees quoted are significantly lower than those charged by competitors.
4. Charcoal Ltd has also requested Ndalu Associates to prepare all outstanding tax returns to enable the company qualify for tax amnesty.
5. During the year, Ndalu Associates provided IT services to Charcoal Ltd in the implementation of an 'off the shelf' accounting package.
6. Last year's audit fees are still outstanding.
7. The Finance Director has informed you that the previous audit team should not be changed.
8. Charcoal Ltd intends to give an interest-free loan to one of the engagement team member to assist him with the preparations for his wedding.

Required:

(a) State three (3) advantages and two (2) disadvantages of principlesbased approach to professional ethics. (5 marks)

(b) Explain six (6) ethical threats which may affect the independence of Ndalu Associates' audit of Charcoal Ltd. (9 marks)

(c) For each threat, suggest an appropriate safeguard. (6 marks)

[Total: 20 Marks]

END OF PAPER

SUGGESTED SOLUTION

SOLUTION ONE

(a) **Audit risks in Bayuni Ltd**

1. First audit:
   This is a first year audit, so there is little knowledge of the business at present. The detection risk that the auditors may not detect material misstatements is high and this may result in the financial statements being misstated.

2. Food industry:
   The industry is subject to a high degree of laws and regulations. Non-compliance with laws and regulations may affect Bayuni Ltd.'s going concern status. There is a risk that provisions may be misstated resulting in the financial statements being misstated.
3. Inventory valuation:
   The nature of the industry and inventory of Bayuni Ltd is such that the valuation of inventory may be misstated. Reliance on the use of experts to value inventory may be necessary. Further, having twenty outlets across the country inventory at these locations may be misstated resulting in a misstatement of the financial statements.
4. Poor accounting and control systems:
   There appears to be poor internal controls in Bayuni Ltd which could result in material misstatements in the figures contained in the financial statements going undetected.
5. Use of audit software:
   There is a risk that audit staff may not have sufficient knowledge of the audit software.
6. Competition:
   This business generally attracts many players. Stiff competition could lead to reduced sales if not managed well and this may have implications on the ability of Bayuni Ltd as a going concern.

7. Credit sales:
   Bayuni Ltd does have sales on credit. There is a risk that some of the receivables may be uncollectable and as such the provisions at the period end may be understated resulting in the financial statements being misstated.
8. Payments by bank transfers:
   Payments by bank transfers may not be correctly accounted for and may result in disputes with customers and unless strong controls and reconciliations are done. These disputes could lead to disagreements with customers and some receivables being uncollectable. This has an impact on the adequacy of the provisions for receivables.

(b)(i)/ (ii)

Weaknesses	Explanations	Tests of controls

1. Credit limits set by Marketing Manager.	There is a possibility of abuse of authority even this is automated.	Review Bayuni Ltd.'s procedures for granting credit to customers.
2. Marketing Manager does not carry out any basic checks before passing over the order to the Marketing Clerk.	The Marketing Clerk may fraudulently change some details.	Inspect a sample of customer orders for evidence of basic checks by the Marketing Manager.
3. Customer takes approved order to dispatch office.	Customer could change some details.	Review control procedures put in place to ensure the customer does not change some details.
4. Standalone PC in the dispatch office.	The arithmetic check is not enough. An integrated system could perform more checks.	Use test data or audit software to test the arithmetic and other checks.
5. No one counter checks what is packed.	There is a possibility of over or under-deliveries. Over-deliveries may be due to fraud. Under-deliveries could adversely affect business relations.	Observe whether anyone in the dispatch counter checks what is packed.
6. Only one copy of the GRN is raised and it is not pre-numbered.	Disputes could be difficult to resolve.	Check the number of copies of GRN raised by Bayuni Ltd and determine whether GRNs are pre-numbered.
7. No review of VAT computations.	The software could malfunction and wrong VAT computations could result in penalties and interest payments.	Use test data or audit software to test VAT computations.
8. No one checks the inputs the Accounts Clerk.	Mistakes and/or fraudulent activities may go unnoticed.	Inspect a sample of the Accounts Clerk's input for evidence of any check by a senior person.
9. Payments made by bank transfer.	Mis-posts could be difficult to resolve if there are no regular reconciliations.	Review a sample of reconciliations performed on bank transfers.
10. Manual sequence checks of invoices.	This may not be effective.	Review and test Bayuni Ltd.'s procedure for accounting for numerical sequences of invoices.

(c) Substantive procedures on the receivables balance in Bayuni Ltd

- Agree the balance from individual sales ledger accounts to the aged receivables listing and vice versa.
- Cast the schedule age analysis of receivables for mathematical accuracy.

- Match the total of the aged receivables listing to the sales ledger control account.
- Perform a receivables confirmation on a sample of year-end trade receivable
- Follow-up all balance disagreements and non-replies to the receivables confirmation.
- Review adequacy of allowance for uncollectable accounts through discussion with management.
- For a sample of sales invoices around the year-end, inspect the dates and compare with the dates on dispatch and the dates recorded in the ledger for application of correct cut-off.
- Determine, through discussion with management, whether any receivables have been pledged, assigned or discounted and whether such items require disclosure in the financial statements.

(d) Limitations of using computer programs to assist in the verification of receivables balance at the year-end:

- Setting up the software needed for CAATs can be time consuming and expensive
- Audit staff will need to be trained so they have a sufficient level of IT knowledge to apply CAATs
- Not all client systems will be compatible with the software used with CAATs
- There is a risk that live client data is corrupted and lost during the use of CAATs

SOLUTIONTWO

(a) Audit plan and why it is so important to any audit:

The audit plan converts the audit strategy into a more detailed plan and includes the nature, timing and extent of audit procedures to be performed by engagement team members in order to obtain sufficient appropriate audit evidence to reduce audit risk to an acceptable low level.

The audit plan is specific to the audit being undertaken and will include matters such as the following:

- Timetable of planned audit work
- Allocation of work to audit team members
- Audit procedures for each major account area (e.g. receivable, cash, inventory etc.)
- Materiality for the financial statements as a whole and performance materiality

It is important because it basically acts as instructions to the engagement team members and hence facilitates efficiency and effectiveness.

(b) Responsibilities of the audit committee and whether it is appropriate for Walker Ltd to have the Chairman of the Board as a member of the audit committee:

- To monitor the integrity of financial statements of the company and any formal announcements relating to the company's financial performance, reviewing significant financial reporting judgments contained in them

- To review the company's internal financial controls and, unless expressly addressed by a separate board risk committee composed of independent directors, or by the board itself, to review the company's internal control and risk management systems

- To monitor and review the effectiveness of the company's internal audit function

- To make recommendations to the board, for it to put to shareholders for their approval in general meeting, in relation to the appointment, reappointment and removal of the external auditor and to approve the remuneration and terms of engagement of the external auditors

- To review and monitor the external auditor's independence and objectivity and the effectiveness of the audit process, taking into consideration relevant professional and regulatory requirements

- To develop and implement policy on the engagement of the external auditor to supply non-audit services, taking into account relevant ethical guidance regarding the provision of non-audit services by the external audit firm; and

to report to the board, identifying any matters in respect of which it considers that action or improvement is needed and making recommendations as to the steps to be taken

- To report to the board on how it has discharged its responsibilities

In smaller companies like Walker Ltd, the Chairman of the Board may be a member of, but not chair, the committee in addition to the independent non-executive directors, provided they were considered independent on appointment as chairman.

(c) Evaluation of whether Walker Ltd.'s going concern:

ISA 570 (Revised) *Going concern* provides guidance to auditors in this area. Under the going concern basis of accounting, the financial statements are prepared on the assumption that the entity is a going concern and will continue its operations for the foreseeable future. ISA 570 includes examples of events or conditions that may cast doubt about the going concern basis of accounting. Walker Ltd.'s going concern could be questionable due to the following:

1. Revenue has increased by 50% but the gross profit margin has decreased from 50% to 37%. This could mean that the costs are increasing rapidly. If this continues Walker Ltd may not continue in the foreseeable future.
2. The 50% increase in revenue is not supported by any increase in share capital. This means Walker Ltd is excessively reliant on borrowings to finance credit sales and acquisition of non-current assets. Non-current assets have increased by a significant 127%. This could be a symptom of overtrading. Non –current liabilities have increased by 800%.
3. Walker Ltd has a net current liability position. It may be failing to pay its payables. Payables could appoint a liquidator so that the company is wound up.
4. The Managing Director resigned during the year and has not been replaced. It is possible that business contacts within the government could be lost.
5. Walker Ltd is negotiating with the Zambia Revenue Authority (ZRA) for a tax clearance certificate (TCC) which is required by the Zambia Public Procurement Authority (ZPPA). If this is not given it could be difficult to continue doing business with the government.

SOLUTIONTHREE

(a) **Meaning of internal controls:**

Internal controls is the process designed and effected by those charged with governance, management, and other personnel to provide reasonable assurance about the achievement of the entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations.

Importance of internal controls to the organization:

Effective internal controls are important to the management of an organization because they contribute towards:

- Safeguarding the company's assets.
- Helping to prevent and detect fraud.
- Safeguarding the shareholders' investment.
- Good internal control helps the business to run efficiently. A control system reduces identified risks to the business. It also helps to ensure reliability of reporting and compliance with laws.

(b) Types of activity normally carried out by internal audit departments:

- **Review of the accounting and internal control systems.** The establishment of adequate accounting and internal control systems is a responsibility of management and the directors.

  Internal audit is often assigned specific responsibility for the following tasks.
  -Reviewing the design of the systems

  -Monitoring the effectiveness of the operation of the systems by risk assessment and detailed testing

  -Recommending cost-effective improvements

  - Reviews will cover both financial and non-financial controls.

- **Examination of financial and operating information.** This may include review of the means used to identify, measure, classify and report such information and specific enquiry into individual items including detailed testing of transactions, balances and procedures.

- **Review of the economy, efficiency and effectiveness** of operations. In the public sector especially this helps to determine whether or not value for money has been achieved.
- **Review of compliance.** This should be carried out in relation to laws, regulations and other external requirements, with internal policies and directives, and with other requirements including appropriate authorization of transactions.

- **Review of the safeguarding of assets.** Are valuable, portable items such as computers or cash secured, is authorization needed for dealing in investments?

- **Review of the implementation of corporate objectives.** This includes review of the effectiveness of planning, the relevance of standards and policies, the organization's corporate governance procedures and the operation of specific procedures such as communication of information.

- **Identification of significant business** and financial **risks.** This involves **monitoring** the **organization's overall risk management policy** to ensure it operates effectively, and **monitoring** the **risk management strategies** to ensure they continue to operate effectively.

- **Special investigations.** These can be carried out in particular areas, for example suspected fraud.

(c) Control activities that you might expect to see in the petty cash system:

1. Petty cash payments should be made only on the basis of suitably authorized vouchers, which should be under sequential control. Vouchers should be retained for subsequent references. Where independent evidence is also available, for example invoices and receipts, this should be retained.

2. An imprest system should be used to control petty cash. This means that the petty cash float is maintained at a specific amount and is reimbursed at regular intervals on the basis of vouchers showing the payments which have been made.

3. The petty cash float should be subject to period surprise counts by a responsible person not involved with the petty cash system. The balance in-hand should be reconciled to the imprest account by reference to the vouchers not yet reimbursed.

4. The size of individual payments out of petty cash should be subject to a maximum to be agreed by the directors.

5. Staff should not be allowed to cash personal cheques or borrow from petty cash (IOUs).

6.

(d) Tests of controls to carry out on the petty cash system of Cast Plc.

- **Count cash balances** held and agree to petty cash book or other record:

  - Count all balances simultaneously

- All counting to be done in the presence of the individuals responsible

- Enquire into any IOUs or cashed cheques outstanding for a long period of time

- **Obtain certificates of cash-in-hand** from responsible officials
- Ensure **IOUs** and cheques cashed for employees have been **reimbursed**
- **Ensure** all payment vouchers are properly authorized
- Select a sample of payment vouchers and check whether the size of individual payments out of petty cash are within agreed maximum
- Review whether **IOUs or cashed cheques outstanding** for **unreasonable periods** of time have been provided for
- Verify the **balances** as counted are reflected in the petty cash book (subject to any agreed amendments because of shortages and so on) by **inspection** of petty cash book

SOLUTIONFOUR

(a) Importance of sufficient and appropriate evidence

ISA 500 *Audit evidence* requiresauditors to 'design and perform audit procedures that are appropriate in the circumstances for the purpose of obtaining sufficient appropriate audit evidence'.

Sufficiency and appropriateness of evidence are important because:

- It is a requirement of ISA 500 for auditors to obtain sufficient appropriate evidence.
- The evidence obtained is the basis upon which the auditor forms his audit opinion.
- Sufficient appropriate audit evidence reduces sampling risk for the auditor.

(b) Various types of audit opinions:

1. **Unmodified opinion** – this refers to the opinion expressed by the auditor when the auditor concludes that the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework. In short, the financial statements "present fairly…' or 'give a true and fair view of…'.

   ISA 700 (Revised) *Forming an opinion and reporting on financial statements* gives detailed guidance in this area.

2. **Modified opinion** – ISA 705 (Revised) *Modifications to the opinion in the independent auditor's report* sets out the different types of modified opinions that can result. It identifies three possible types of modifications as follows:
   - **Qualified opinions** – a qualified opinion must be expressed in the auditor's report in the following two situations:
     - The auditor concludes that misstatements are material, but not pervasive, to the financial statements
     - The auditor cannot obtain sufficient appropriate audit evidence on which to base the opinion but concludes that the possible effects of undetected misstatements, if any, could be material but not pervasive

     In short, 'except for…, the financial statements…'.
   - **Adverse opinion** – this is expressed when the auditor, having obtained sufficient appropriate audit evidence, concludes that misstatements are both material and pervasive to the financial statements. In short, 'the financial statements do not present fairly or do not give a true and fair view of…'.

- **Disclaimers of opinion** – an opinion must be disclaimed when the auditor cannot obtain sufficient appropriate audit evidence on which to base the opinion and concludes that the possible effects on the financial statements of undetected misstatements, if any, could be both material and pervasive. In short, 'we do not express an opinion…'.

(c) Appropriate audit opinions for the four matters:

1. Cash and bank

   The misstatement amounts to 0.5% of the cash and bank balance and is therefore clearly immaterial. An unmodified opinion will therefore be given.

2. Non-current assets

   The misstatement is both material and pervasive since non-current assets represents a substantial portion of the financial statements. This misstatement therefore means the financial statements are generally misleading. An adverse opinion will therefore be given.

3. On-line sales

   The conclusion is that the possible effects of undetected misstatements, if any, could be material but not pervasive. Hence, a qualified opinion will be given.

4. Inventory

   The accounting treatment used by the company is in line with IAS 2 *Inventories.* According to IAS 2 inventory should be valued at the lower of cost and net realizable value. There is no adjustment required. An unmodified opinion will be given.

SOLUTIONFIVE

(a) Advantages of principles based approach include:

1. It places the onus on the professional to consider actively relevant issues in a given situation, rather than just agreeing action with a checklist of forbidden items. It also requires him or her to demonstrate that a responsible conclusion has been reached about ethical issues.
2. It prevents professionals from interpreting legalistic requirements narrowly to get around the ethical requirements. There is an extent to which rules engender deception, whereas principles encourage compliance.
3. It allows for variations that are found in every individual situation. Each situation is likely to be different.
4. It can accommodate a rapidly changing environment, such as the one in which auditors are.
5. It can include examples to illustrate how the principles are applied.

Disadvantages of principles based approach include:

1. As ethical codes cannot include all circumstances and dilemmas, accountants need a very good understanding of the underlying principles.
2. A principles based code can be difficult to enforce legally, unless the breach of the code is blatant. Most are therefore voluntary and perhaps therefore less effective.

(b) & (c) Ethical threats & suitable safeguards in the audit of the financial statements of Charcoal Ltd:

Ethical threats	Explanations	Safeguards
1. Ndalu Associates has audited Charcoal Ltd for eight (8) years.	A long relationship with a client as is the case with Charcoal Ltd, may result in a familiarity threat. Ndalu Associates will be too sympathetic to Charcoal Ltd.'s interests or to accepting of Charcoal Ltd.'s work. There is a substantial risk of loss of professional skepticism in this circumstance. This could create bias and therefore affect the Ndalu Associates' judgment. However, it is unclear whether the same engagement staff have been associated with this audit.	If the same engagement staff have been used, senior audit staff must be rotated so that the relationship does not become too close. If this is inappropriate, Ndalu Associates should consider instituting a second partner review as another measure to maintain objectivity.
2. Last year, the engagement audit team members attended a traditional ceremony in one	This is definitely of significant value and should have been declined. Only gifts and hospitality with a	The offer should be declined if offered again. Disciplinary measures and review of last year's work could be

of the provinces in the Republic of Zambia. All expenses were paid by Charcoal Ltd.	trivial and inconsequential value can be received. This constitutes a familiarity threat.	considered as well.
3. The wife of the Engagement Partner recently joined Charcoal Ltd as Finance Director.	There is a significant familiarity and self-interest threat. Both are senior in their respective organization and any onlooker would perceive independence to be threatened.	Ideally the partner should be rotated off the audit and replaced with another partner.
4. Fees quoted are significantly lower than those charged by competitors (Low-balling).	This creates a significant self-interest threat. Ndalu Associates could be accused of compromising the quality of the audit in order to operate within the low fee.	Ndalu Associates must ensure that they carry out an audit of the quality demanded by auditing standards and that the 'cut-price' audit fee does not call their independence into question. The audit firm must maintain records such that the firm is able to demonstrate that appropriate staff and time are allocated to the engagement.
5. Preparation of all outstanding tax returns to enable the company qualify for tax amnesty.	This may represent a self-review threat. The audit firm may ignore or overlook their own errors when auditing the financial statements. However, tax return preparation generally does not threaten independence, as long as management takes responsibility for the returns.	Ndalu Associates should ensure separate teams work on each engagement.
6. Provision of IT services in the implementation of an 'off the shelf' accounting package.	Charcoal Ltd is not a public interest entity and since the accounting package is 'off the shelf', the degree of ethical threat is not significant.	Management must acknowledge its responsibility for the accounting package.
7. Last year's fees are still outstanding.	This may create a self-interest threat. This may be perceived as a loan to Charcoal Ltd, which is prohibited.	The reasons for non-payment should be determined and if possible an agreement reached whereby Charcoal Ltd repays the fee prior to the commencement of any further audit work.
8. Previous audit team should not be changed.	This could result in an intimidation threat. The	It may be necessary to discuss the issue with

	auditor will be deterred from acting objectively.	management. The auditor may change the staff if this would preserve independence and objectivity.
9. Interest-free loan to one of the engagement team member to assist him with the preparation for his wedding.	This represents significant self-interest threat to the member. His independence and objectivity could be impaired.	Charcoal Ltd is not a bank or financial institution which offers loans. The member should politely decline the offer.

END OF SOLUTIONS

CHARTERED ACCOUNTANT ZAMBIA

APPLICATION LEVEL

CA 2.4: TAXATION

THURSDAY 17 DECEMBER 2020

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

INSTRUCTIONS TO CANDIDATES

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

2. This paper is divided into TWO (2) sections:

   Section A: ONE (1) Compulsory Question.
   Section B: Four (4) Optional Questions. Attempt any THREE (3) questions

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

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

5. **Cell phones** are **NOT** allowed in the examination room.

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

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

8. Present legible and tidy work.

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

10. A Taxation table is provided from page 2 to page 6 of the question paper.

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

Taxation table for CA 2.4 – Taxation (2020 Examinations)

Income Tax

Standard personal income tax rates

Income band	Taxable amount	Rate
K1 to K39,600	first K39,600	0%
K39,601 to 49,200	next K9,600	25%
K49,201 to K74,400	next K25,200	30%
Over K74,400		37.5%

Income from farming for individuals

K1 to K39,600	first K39,600	0%
Over K39,600		10%

Company Income Tax rates

On income from manufacturing and other	35%
On income from farming	10%
On income of Banks and other Financial Institutions	35%
On income from mineral processing	30%
On income from mining operations	30%
On income from manufacture of products made out of copper cathodes	15%

Mineral Royalty

Mineral Royalty on Copper

Range of Norm Price	Mineral Royalty Rate
Less than US$4,500	5.5% of norm value
From US$4,500 to less than US$6,000	6.5% of norm value
From US$6,000 to less than US$7,500	7.5% of norm value
From US$7,500 to less than US$9,000	8.5% of norm value
From US$9,000 and above	10% of norm value

Mineral Royalty on other minerals

Type of mineral	Mineral Royalty Rate
Base Metals (Other than Copper, Cobalt and Vanadium)	5% of norm value
Cobalt and Vanadium	8% of norm value
Energy and Industrial Minerals	5% of gross value
Gemstones	6% of gross value
Precious Metals	6% of norm value

Capital Allowances

Implements, plant and machinery and commercial vehicles:

Wear and Tear Allowance –	Plant used normally	25%
	Used in Manufacturing and Leasing	50%
	Used in farming and agro-processing	100%
	Used in mining operations	20%

Non- commercial vehicles

Wear and Tear Allowance	20%

Industrial Buildings:

Wear and Tear Allowance	5%
Initial Allowance	10%
Investment Allowance	10%

Low Cost Housing **(Cost up to K20,000)**

Wear and Tear Allowance	10%
Initial Allowance	10%

Commercial Buildings

Wear and Tear Allowance	2%

Farming Allowances

Development Allowance	10%
Farm Works Allowance	100%
Farm Improvement Allowance	100%

Presumptive Taxes

Turnover Tax 4%

Presumptive Tax for Transporters

Seating capacity	**Tax per annum**	**Tax per day**
	K	K
From 64 passengers and over	10,800	29.60
From 50 to 63 passengers	9,000	24.70
From 36 to 49 passengers	7,200	19.70
From 22 to 35 passengers	5,400	14.80
From 18 to 21 passengers	3,600	9.90
From 12 to 17 passengers	1,800	4.90
Less than 12 passengers and taxis	900	2.40

Property Transfer Tax

Rate of Tax on Realised Value of Land, Land and Buildings and shares	5%
Rate of Tax on Realised Value on a transfer or sale of a mining right	10%
Rate of Tax on Realised Value on a transfer of Intellectual Property	5%

Value Added Tax

Registration threshold	K800,000
Standard Value Added Tax Rate (on VAT exclusive turnover)	16%

Customs and Excise duties on used motor vehicles

	Aged below 5 years		Aged 5 years and over	
Motor vehicles for the transport of ten or more persons, including the driver	**Customs duty**	**Excise duty**	**Customs duty**	**Excise duty**
	K	**K**	**K**	**K**
Sitting capacity of 10 but not exceeding 14 persons including the driver	17,778	22,223	8,889	11,112
Sitting capacity exceeding 14 but not exceeding 32 persons	38,924	0	13,840	0
Sitting capacity of 33 but not exceeding 44 persons	86,497	0	19,462	0
Sitting capacity exceeding 44 persons	108,121	0	43,248	0

	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	22,561	29,329	18,049	23,463

exceeding 2500 cc				
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

Chibombo FarmsLtd (CFL)is a Zambian residentcompany engaged in farming operations. The following extract of the statement of profit or loss has been obtained from the company's accounts for the year ended 31 December 2020:

	Note	K	K
Gross profit			46,759,950
Add: Other income			
Profit on disposal of farm implements	(1)	18,500	
Investment income:			
- Treasury bill interest (net)	(2)	38,250	
- Dividends (net)	(2)	136,000	
- Rental income (net)	(2)	405,000	
			597,750
			47,357,700
Less expenses			
Depreciation		230,000	
Amortisation of intangible assets		60,000	
Legal and professional fees	(3)	81,000	
Gifts and entertainment	(4)	134,700	
Bad debt expense	(5)	244,000	
General operating expenses	(6)	19,134,000	
Provisional income tax	(7)	2,270,000	
			(22,153,700)
Profit for the year			25,204,000

The following information is available:

Note 1: Profit on Disposal of farm implements

In March 2020, the company sold old farm implements which were acquired three (3) years ago at a cost of K180,000 for disposal proceeds of K63,500 giving rise to the profit on disposal shown above.

Note 2: Investment income

The investment income comprising treasury bill interest income, dividend income and rental income is all net of withholding tax which was deducted at source in each case.

Note 3: Legal fees and professional fees

These comprise the following:

	K
Legal fees incurred in recovering loans from suppliers of farming inputs	15,000
Legal fees paid to arrange the transfer of title to newly acquired farm land	17,500
Legal fees incurred to defend title to existing farm land occupied by squatters	32,500
Legal fees in connection with recovery of trade debts	16,000
	81,000

Note 4: Gifts and entertainment

These comprise the following:

	K
New year shopping vouchers for employees	56,500
Entertaining suppliers of farm inputs	16,700
Gifts of CFL branded T-shirts to customers costing K150 per customer	15,000
Gifts of CFLbranded milk costing K10per customer	10,000
Entertaining customers	18,500
Entertainment expenditure for the company's directors	18,000
	134,700

Note 5: Bad debt expense

	K		K
Trade debts written off	214,000	Balance b/f	
Loans to employees written off	80,000	- Specific allowance	36,000
		- General allowance	96,000
		Trade debts written off now recovered	54,000
Balance c/d		Supplier's loans written off subsequently recovered	
- Specific allowance	30,000		17,000
- General allowance	123,000	Profit or Loss	244,000
	447,000		447,000

Note 6: General operating expenses

General expenses comprise the following items:

	K
Staff costs	10,600,000
Director's emoluments	1,250,000
Animal feed& pesticides	580,000
Purchase of company billboards	450,000
Accounting, tax and audit fees	344,000
Repairs and maintenance	260,000
Sundry allowable expenses	5,650,000
	19,134,000

Director's emoluments include the emoluments of the Managing Director amounting to K600,000 who is accommodated in a company owned house, for which he does not pay any rent.

Note 7: Provisional income tax
The amount shown in the statement of profit or loss is the amount of provisional income tax paid during the tax year 2020.

Note 8: Implements plant & machinery

In the tax year 2020,the company held the following implements, plant and machinery which were acquired at the following dates:

Date	Asset	Original cost
		K
20 April 2018	Toyota Fortuner car (2,600cc)	600,000
16 September 2018	Ford Ranger Double Cab Van (3,200cc)	650,000
20 February 2019	Delivery van	250,000
1 May 2019	Tractors	180,000
14 June 2019	Combine Harvester	120,000
19 May 2020	New Irrigation System	160,000

The Ford Ranger Double Cab is used by the Managing Director on a personal to holder basis, whilst the Toyota Fortuner motor car is used by the Finance Manager on a personal to holder basis. Each Official's private use of each motor vehicle has been agreed to be 50%.

Note 9: Farm works, farm improvements and development expenditure

During the year ended 31 December 2020, the company incurred the following expenditure, which has not been included in the statement of profit or loss shown above:

	K
Expenditure on sinking boreholes	120,000
Dwelling houses for farm workers (K50,000 each)	250,000
Construction of new storage facilties for farm produce	300,000
Expenditure on the development of citrus fruit plantation	200,000

Note 10: Tax loss from farming

At 1 January 2020, Chibombo Farms Ltd had an unrelieved tax loss from farming of K8,890,450, which is the balance of a loss which the company suffered three years ago.

Note 11: Taxable profits from retail operations

Chibombo Farms Ltd also runs a chain of retail outlets for its farm produce. The final taxable profits from the retail outlets in the tax year 2020 was K5,355,000.

Required:

(a) Explain the differences between farm improvements and farmworks giving examples for each. (4 marks)

(b) Compute the maximum amount of capital allowances claimable byChibomboFarms Ltd in the tax year 2020. (12 marks)

(c) Calculate final taxable profit from farming for ChibomboFarms Ltdfor the tax year 2020. (16 marks)

(d) Prepare a computation of the amount of company income tax payable by ChibomboFarms Ltdfor the tax year 2020. (8 marks)

[Total: 40 Marks]

SECTION B

There are FOUR (4) questions in this section. Attempt Any THREE (3) questions.

<u>QUESTION TWO</u>

Lusungu has been employed as a Public Relations Officer at a Zambian resident company. Her annual basic salary in the tax year 2020 was K168,000 and she was entitled to an annual educational allowance of K6,000.

Until 31 May 2020, she had always been provided with free meals from the staff canteen worth K420 per month. However, on 31 May 2020, the staff canteen was closed down and with effect from 1 June 2020,Lusungu became entitled to an annual lunch allowance of 3% of her annual basic salary.

Lusungu is accommodated in a company owned house for which she pays no rent. The market value of the house is currently K600,000. Had the house been let out on a commercial basis, the company would have charged commercial rentals of K3,000 per month. The company has always paid electricity bills which amounting to K1,250 per month and water bills of K450 per month in relation to the house on behalf of Lusungu.

On 31 July 2020, the company sold the house and Lusungu shifted into a rented house on 1 August 2020. With effect from that date, she became entitled to an annual accommodation allowance of 5% of her annual basic salary. The company continued paying electricity bills of K1,250 per month and water bills of K450 per month on behalf of Lusungu in relation to the new house.

In March 2020, Lusungu incurred medical expenses of K8,600 for the medical treatment of her sick son. The company refunded her the full amount of K8,600. On 1 May 2020, she was given a labour day award, comprising cash of K3,000 and a wall clock worth K500.

During the tax year 2020, she incurred travelling expenses of K500 per month, wholly, exclusively and necessarily in the performance of the duties of her employment. The company reimbursed her cash amounting to K800 per month throughout the year in respect of these travel expenses.

Lusungu made the following payments from her employment income during the tax year 2020:

Trade Union subscriptions	K150 per month
Professional subscriptions	K1,500 per annum
NAPSA contributions	K600 per month
Life insurance premiums	K400 per month
Donations to approved public benefit organization	K250 per month
PAYE deducted from Zambian employment income	K50,200

Other income:
Lusungu received the following investment income during the tax year 2020:

	K
Treasury bill interest	13,600
Building society interest	1,700
Dividends from Tecla Plc (a company listed on the LuSE)	10,200
Betting winnings	4,000
Rental income	43,200

The above amounts are the actual amounts received in each case, withholding tax was deducted at source at the relevant rates where applicable.

Required:

(a) Explain the basis of assessment for emoluments from employment. (3 marks)

(b) Compute the amount of withholding tax deducted at source from the investment income she received in the tax year 2020.You should clearly show the amount of withholding tax paid on each type of investment income. (5 marks)

(c) Compute the amount of income tax payable by Lusungu in the tax year 2020.You should clearly indicate in your computation, by the use of a zero (0), any benefits provided to Lusungu in the tax year 2020, which are not taxable.

(12 marks)

[Total: 20 Marks]

QUESTION THREE

You are employed in a Tax Practice. The Tax Manager has presented you with the following information that has been extracted from the files of the following clients of your firm relating to the tax year 2020:

Elemex Ltd

Elemex Ltd is engaged in retailing. In the tax year 2020, the net profit from the business as per accounts was K310,000 generated form a turnover of K720,000 which was earned evenly during the year. The net profit figure was arrived at after deducting depreciation of K50,000, salaries for employees of K60,000, rent for business premises of K24,000, PAYE penalties of K6,800 and other expenses incurred wholly and exclusively for business purposes of K269,200. The annual turnover from the business has always averaged K720,000 per year.

Maria Ng'uni

Maria Ng'uni rans a fashion boutique. She voluntarily registered her business for Value Added Tax (VAT) two years ago. In the tax year 2020, the business generated a profit as per accounts of K137,000 from a turnover of K500,000.

The net profit figure was arrived at after deducting Maria's annual salary of K84,000, employees' salaries of K50,000, rent for business premises of K18,000, advertising expenses of K6,800, entertainment of customers of K10,200, donations to an approved orphanage of K5,000, donations of K3,000 to a political party and other expenses incurred wholly and exclusively for business purposes of K186,000. The annual turnover from her business has always averaged K500,000 per year.

ChiyezhiLusubilo

Chiyezhi bought three motor vehicles in the tax year 2020 to be used for the transportation of public passengers. The details relating to each vehicle are as follows:

Date vehicle commenced operations	Type of Vehicle	Number of days vehicle not operational due to break downs	Gross income K	Total operating costs K
19 Jan, 2020	Toyota Corolla Taxi	10 days	108,000	68,000
13 April, 2020	16 Seater Toyota Hiace bus	25 days	190,000	95,000
23 June 2020	28 Seater Rosa Bus	16 days	315,000	160,000
		Total	**613,000**	**323,000**

Each vehicle was operational every day from Sunday to Saturday except for the days shown above when the vehicles were not operational due to break downs.

Required:

(a) Provide explanations of how each of the above clients Elemex Ltd, Maria and Chiyezhi will be assessed to tax in the tax year 2020. (6 marks)

(b) Prepare computations of the amount of income tax paid in the tax year 2020, by:

(i) Elemex Ltd (3 marks)
(ii) Maria Ng'uni (5 marks)
(iii) ChiyezhiLusubilo (6 marks)

[Total: 20 Marks]

QUESTION FOUR

Tizanso imported a second-hand Toyota Land Cruiser Prado (SUV) car (with a cylinder capacity of 2,690cc) in February 2020. The car was manufactured in Japan in January 2017. The cost of the car was $7,500 (free on board). She incurred insurance costs of $500, transportation costs of $1,700 in transit up to the port of Dar es salaam. Incidental and clearing costs of $300 were incurred up to Nakonde border post. She incurred further incidental costs of transporting the vehicle from the Nakonde border post to Ndola amounting to $1,500. In Ndola vehicle registration fees were K2,000, whilst motor car insurance costs were K5,000.

The exchange rate provided by the CommissionerGeneral at the time of importation of the vehicle was K14.80 per US$; However, the exchange rates quoted in a local bureau de change was K15.00 per US$

Required:

(a) Calculate the customs value of the Toyota Land Cruiser Prado (SUV)car and the total import taxes paid by Tizanso on the importation of the vehicle. (6 marks)

(b) Describe any four (4)methods that may be used to value imported goods. (8 marks)

(c) Describe any three (3) methods that may be used to determine the value for the purposes of determining excise duty on goods manufactured in Zambia. (6 marks)

[Total: 20 Marks]

QUESTION FIVE

The following summarised statement of profit or loss for the year ended 31 December 2020, has been extracted from the financial statements of Chambeshi Mining Corporation (CMC), a Zambian resident subsidiary of a foreign based Multinational Mining company. CMC is engaged in mining operations of copper, cobalt, precious minerals and industrial minerals. The group maintains its accounts in US dollars.

CHAMBESHI MINING CORPORATION
STATEMENT OF PROFIT OR LOSS FOR THE YAER ENDED31 DECEMBER 2020

	Note	K	K
Revenue	(1)		144,000,000
Cost of sales			(67,711,400)
Gross profit			76,288,600
Add other income:			
Rental income (net)		78,400	
Fixed Deposit interest (net)		17,000	
			95,400
			76,384,000
Less Expenses:			
Depreciation		300,000	
Amortisation of intangible assets		200,000	
Entertaining customers		13,300	
Entertaining employees		14,200	
Marketing expenses		56,500	
General operating expenses	(2)	26,300,000	
Interest expense		18,000,000	
Income tax expense	(3)	11,289,000	
			(56,173,000)
Net profit for the year			20,211,000

Additional information:

Note 1: Revenue

Sales revenue for the year comprises the following:

	K
Sales of copper (norm value)	68,500,000
Sales of cobalt (norm value)	30,500,000
Sales of precious minerals (norm value)	16,800,000
Sales of industrial minerals (gross value)	28,200,000
	144,000,000

The norm value of copper of K68,500,000, shown above, is based on the London Metal Exchange cash price which ranged between $6,100 and $7,000 throughout the tax year 2020.

Note 2: General operating expenses

The Mineral royalty tax paid by the company during the year was computed correctly and paid on the relevant due dates and has been included within general operating expenses in the statement of profit or loss shown above.

Operating expenses also include expenditure of K500,000 incurred on the construction of a clinic in the mine township, processed minerals transportation costs of K1,260,000 and employee salaries K5,650,000. The remaining balance represents miscellaneous allowable operating expenses.

Note 3: Income Tax expense

The income tax expense represents the provisional income tax paid by the company for the tax year 2020.

Note 4: Implements, plant and machinery

At 1 January 2020, the original costs of plant and machinery qualifying for capital allowances, acquired by CMC locally, from Zambian suppliers were as follows:

Asset	Original cost
	K
Mining equipment	750,000
Mining plant	20,000,000

Required:

(a) Compute the total amount of Mineral Royalty Tax paid by CMC in the tax year 2020. (4 marks)

(b) Calculate the final tax adjusted mining profit for the tax year 2020. Your answer should include a computation showing the amount of the interest expense incurred by the company during the year that will be allowable and the amount which will be disallowed when computing the taxable mining profits. (12 marks)

(c) Calculate the final amount of income tax payable by the company for the tax year 2020. (4 marks)

[Total: 20 Marks]

END OF PAPER

SUGGESTED SOLUTIONS

SOLUTION ONE

(a) A farm improvement is any permanent work including a farm dwelling and fencing appropriate to farming and any building constructed for and used for the welfare of employees in relation to farming land owned or occupied by the farmer claiming the allowance for ascertaining their profit.

Examples of expenditure that qualifies for farm improvements includes expenditure on construction of barns and other storage buildings, expenditure on the construction of farm dwellings, expenditure incurred on fencing and expenditure on the construction of buildings for the welfare of employees

Farm works are all the works which are carried out on the farm. They do not include farm improvements or industrial or commercial buildings.

Examples ofexpenditure that qualifies as farm works include expenditure incurred on works for the prevention of soil erosion, expenditure incurred on carrying out aerial or geographical survey, wells, boreholes, stumping and clearing and expenditure incurred on water conservation.

(b) CHIBOMBO FARMS LTD

COMPUTATION OF CAPITAL ALLOWANCES FOR THE TAX YEAR 2020

		Capital allowances
	K	K
Old Farm Implements		
Income Tax Value b/f	Nil	
Disposal Proceeds	(63,500)	
Balancing charge	(63,500)	(63,500)
Billboards		
Wear & tear allowance		
(K450,000 x 25%		112,500
Toyota Fortuner Car		
Wear and tear allowance		
(K600,000 x 20%)		120,000
Ford Ranger Double Cab		
Wear and tear allowance		
(K650,000 x 20%)		130,000
Delivery Van		
Wear and tear allowance		
K250,000 x 25%		62,500
Tractors		
ITV b/f	Nil	
Wear & tear allowance	Nil	0
Combine Harvester		
ITV b/f	Nil	
Wear & tear allowance	Nil	0

New Irrigation System	
Wear & tear allowance	
(K160,000 x 100%)	160,000
Boreholes	
Farm work allowance	
(K120,000 x 100%)	120,000
Dwelling houses	
Farm improvement allowance	
(Restricted to K20,000 x 5)	100,000
Storage Facilities	
Farm improvement allowance	
K300,000 x 100%	300,000
Citrus Fruit Plantations	
Development allowance	
K200,000 x 10%	20,000
	1,061,500

(c) CHIBOMBO FARMS LTD

COMPUTATION OF TAXABLE BUSINESS PROFIT

	K	K
Profit for the year		25,204,000
Add		
Depreciation	230,000	
Amortisation of intangible assets	60,000	
Legal fees for recovery of loans from suppliers	15,000	
Legal Fees for transfer of title to new farm land	17,500	
Entertaining suppliers of farm inputs	16,700	
Gifts of T-shirts to customers	15,000	
Entertaining customers	18,500	
Increase in general provision		
(K123,000 – K96,000)	27,000	
Loans to employees written off	80,000	
Billboards	450,000	
Accommodation benefit		
- MD's house (K600,000 x 30%)	180,000	
Personal to holder motor car benefits:		
- Managing Director's Ford Ranger (3,200cc)	40,000	
- Finance Manager's Toyota Fortuner (2,600cc)	30,000	
Provisional income tax	2,270,000	
		3,449,700
		28,653,700
Less		
Profit on sale of farm implements	18,500	
Treasury bill interest	38,250	
Dividends	136,000	
Rental income	405,000	
Loans to suppliers recovered	17,000	
Capital allowances	1,061,500	

	(1,676,250)
Tax adjusted farming profits before loss relief	26,977,450
Less Tax loss brought forward	(8,890,450)
Final taxable farming profits	18,087,000

(d) CHIBOMBO FARMS LTD

COMPANY INCOME TAX COMPUTATION FOR THE TAX YAER 2020

	K
Non farming income	
Profit from retail operations	5,355,000
Treasury bill interest (K38,250 x 100/85)	45,000
Total non-farming income	5,400,000
Farming profits	18,087,000
Total taxable profits	23,487,000
Company income tax on non- farming profits (K5,400,000 x 35%)	1,890,000
Company income tax on farming profits (K18,087,000 x 10%)	1,808,700
	3,698,700
Less Tax already paid:	
Provisional income tax	(2,270,000)
WHT on Treasury bill interest (45,000 x 15%)	(6,750)
Final Company income tax payable	1,421,950

SOLUTION TWO

(a) The basis of assessment for emoluments from employment is the actual receipts basis. This means that emoluments from employment are taxable in the tax year when they are actually received.

As a general rule, emoluments will be deemed to have been received on the earlier of:

(1) The time when they are actually paid; and

(2) The time when the employee becomes entitled to them.

(b) COMPUTATION OF WITHHOLDING TAX DEDUCTED AT SOURCE

	K
Treasury bill interest (K13,600 x 15/85)	2,400
Building society interest	0
Dividends from Tecla Plc	0
Betting winnings (K4,000 x20/80)	1,000
Rental income (K43,200 x10/90)	4,800
	8,200

(c) LUSUNGU

PERSONAL INCOME TAX COMPUTATION FOR THE TAX YEAR 2020

	K	K
Employment Income		
Salary		168,000
Educational allowance		6,000
Lunch allowance		
(K168,000 x 3%) x 7/12		2,940
Accommodation allowance		
(K168,000 x 5%) x 5/12		3,500
Electricity bills (K1,250 x 12)		15,000
Water bills (K450 x12)		5,400
Travelling expenses (K800 – K500) x 12)		3,600
Accommodation benefit (company house)		0
Free meals from staff canteen		0
Labour day award		0
Gross emoluments		204,440
Less: allowable deductions		
Donation to approved public benefit organisations (K250 x 12)	3,000	
Professional subscriptions	1,500	
		(4,500)
		199,940

Income Tax

On first K39,600 x 0%	0
On next K9,600 x 25%	2,400
On next K25,200 x 30%	7,560
On excess (K199,940 – K74,400) x 37.5%	47,078
Total Zambian Tax liability	57,038
Less: tax already paid	
PAYE	(50,200)
Income tax payable	6,838

SOLUTION THREE

(a) **Elemex Ltd**

Elemex will be required to pay turnover tax.This is because the company is carrying on a business whose annual turnover is less than K800,000.

Turover tax applies to any person carrying on a business with an annual turnover of K800,000 or less and any person whose income consists of amounts, which are subjected to withholding tax, where withholding tax is not the final tax.

Elemex Ltd was therefore required to pay turnover tax at the rate of 4% of its monthly turnover within 14 days after the end of each month throughout the tax year 2020.

Maria Ng'uni

Maria will be required to pay income tax and not turnover tax. This is because even though the annual turnover from her business is below K800,000, the business is voluntarily registered for VAT. Furthermore, her income for the year exceeded K39,600. She will therefore pay tax under the self-assessment system.

Person carrying on a business where the annual turnover is K800,000 or below and have voluntarily registered for VAT are exempt from paying turnover tax and are assessed under normal income tax through the self-assessment.

ChiyezhiLusubilo

Chiyezhi is an individual carrying on businesses for the transportation of public passengers for reward and therefore will be required to pay presumptive taxes for transporters and will not be required pay income tax on the profits he will generate in the tax year 2020.

The amount of presumptive taxes payable will be fixed estimated amounts based on the seating capacity of the motor vehicles he will use in the transportation business.

(b) (i) **Elemex Ltd**

Elemex Ltd will pay turnover tax at the rate of 4% of its gross monthly turnover without deducting any business expenses.

Since the turnover was earned evenly throughout the year, the amount of monthly turnover is:

1/12 × K720,000 = K60,000.

The monthly turnover tax will be computed as follows:

K60,000 × 4% = K2,400

(ii) MARIA NG'UNI' S

COMPUTATION OF INCOME TAX PAYABLE

	K	K
Profit as per accounts		137,000
Add:		
Maria's salary	84,000	
Entertaining customers	10,200	
Donation to political party	3,000	
		97,200
Taxable profit		234,200
Income Tax		
On first K39,600 x 0%		0
On next K9,600 x 25%		2,400
On next K25,200 x 30%		7,560
On excess (K234,200 – K74,400) x 37.5%		59,925
Income tax payable		69,885

(iii) **ChiyezhiLusubilo**

The amount of presumptive taxes paid by Chiyezhi will be computed as follows:

PRESUMPTIVE TAXES PAID

	K
Taxi: K2.40 x 338 days (W) =	811
Hiace bus: K4.90 x 238 days (W) =	1,166
Rosa bus: K14.80 x 176 (W) =	2,605
	4,582

WORKINGS:

MONTH	**Taxi** No of days	**Hiace** No of days	**Rosa bus** No of days
Jan	13	-	-
Feb	29	-	-
March	31	-	-
April	30	18	-
May	31	31	-
June	30	30	8

July	31	31	31
August	31	31	31
September	30	30	30
October	31	31	31
November	30	30	30
December	31	31	31
Total	348	263	192
Less days vehicle broke down	(10)	(25)	(16)
No of days vehicle operational	338	238	176

Note:

The month of February 2020 has twenty-nine (29) days.

Alternatively, the number of days each vehicle was operational could simply have been computed as:

Taxi

366 days- 10 days – 18 days = 338 days

Rosa Bus

366 days – 31 -29-31-30 – 31 -22 -16 days = 176 days

SOLUTION FOUR

(a) COMPUTATION OF THE VDP

Purchase cost	$7,500
Insurance	$500
Transportation	$1,700
Incidental and clearing costs	$300
	$10,000
Exchange rate	x K14.80
VDP	148,000

COMPUTATION OF IMPORT TAXES

	K	K
VDP for Customs purposes	148,000	
Specific customs duty	24,065	24,065
	172,065	
Specific excise duty	31,284	31,284
Value for import VAT purposes	203,349	
K97,399 x 16%	32,536	32,536
	235,885	
Total import taxes		87,885

(b) **Transaction value**

This is based on the price actually paid or payable including insurance, freight and other incidental costs to the extent that they are paid. The importer should ensure that the VDP arrived at using this method is supported by evidence that is acceptable and genuine.

Transaction value of identical goods

This is the price of identical goods imported by another importer into Zambia from the same source, including insurance, freight and other incidental costs.

Transaction value of similar goods

This is the price of similar goods imported by another importer into Zambia from the same source, including insurance, freight and other incidental costs.

Deductive value

This is the price at which identical or similar goods are sold in their quantity in Zambia.

Computed value

This is the price based on cost of production, insurance, freight and other costs incurred in the delivery of the goods to Zambia.

Residual basis of value (fall-back)

This is the price arrived at by going through the above five methods flexibly.

(c) There are seven methods that can be used to determine the VDP and these are as follows:

(1) The price at which a licensed manufacturer of excisable goods offers the goods for sale on the open market

(2) The lowest price at which identical goods in the same quantity (or almost the same quantities) are sold within Zambia by another licensed manufacturer in the open market

(3) The lowest price at which identical goods in different quantities are sold within Zambia by another licensed manufacturer in the open market

(4) The lowest price at which similar goods in the same quantity (or almost the same quantities) are sold within Zambia by another licensed manufacturer in the open market

(5) The lowest price at which similar goods in different quantities are sold within Zambia by another licensed manufacturer in the open market

(6) The price which the goods would fetch, less profit and other costs beyond the manufacturing level

(7) The computed value comprising the cost of production, profit and other costs to the manufacturing level

SOLUTION FIVE

(a) COMPUTATION OF MINERAL TAX (MRT) PAID FOR THE TAX YEAR 2020

Mineral	MRT PAID
Copper	K
K68,500,000 x 7.5%	5,137,500
Cobalt	
K30,500,000 x 8%	2,440,000
Precious Minerals	
K16,800,000 x 6%	1,008,000
Industrial Minerals	
K28,200,000 x 5%	1,410,000
Total	9,995,500

(b) CMC

COMPUTATION OF TAXABLE MINING PROFITS FOR THE TAX YEAR 2020

	K	K	
Net profit as per accounts		20,211,000	
Add:			
Depreciation	300,000		
Amortisation of intangible assets	200,000		
Entertaining customers	13,300		
Mineral royalty tax	9,995,500		
Construction of Clinic	500,000		
Income tax expense	11,289,000		
		22,297,800	
		42,508,800	
Less:			
Rental income	78,400		
Fixed Deposit interest	17,000		
Capital allowances (W1)	4,250,000		(W)
		(4,345,400)	
Taxable mining profits before interest expense adjustment		38,163,400	

Add Disallowed Interest (W2)	994,480
Final Taxable Mining Profit	39,157,880

WORKINGS

(1) COMPUTATION OF CAPITAL ALLOWANCES

	K
Clinic	
Wear & tear allowance	
(K500,000 x 20%)	100,000
Mining equipment	
Wear & tear allowance	
(K750,000 x 20%)	150,000
Mining plant	
Wear & tear allowance	
(K20,000,000 x 20%)	4,000,000
	4,250,000

(2) COMPUTATION OF ALLOWABLE & DISALLOWED INTEREST

(i) The amount of interest that is allowable is restricted to 30% of the Tax Earnings Before Interest, Tax, Depreciation and Amortisation (Tax EBITDA) of the company.

The Tax EBITDA is the sum of the taxable income, gross interest expense, depreciation and Amortisation, i.e.

Tax EBITDA = Taxable income + Interest expense + Depreciation + Amortisation

(ii) COMPUTATION OF TAXABLE INCOME & TAX EBITDA

The Taxable Income before the Interest expense adjustment and the Tax EBITDA will therefore be computed as follows:

	K
Taxable mining profit before interest expense adjustment	38,163,400
Add Fixed Deposit interest (K17,000 x100/85)	20,000
Taxable income	38,183,400
Add:	
Interest expense	18,000,000
Depreciation	300,000

Amortisation	200,000
Tax EBITDA	56,683,400

(iii) The allowable and disallowed interest will therefore be computed as follows:

	K
Total interest expense as per accounts	18,000,000
Allowable interest is restricted to 30% of Tax EBITDA:	
(30% × K56,683,400)	(17,005,020)
Disallowed interest	994,480

(c) CMC

COMPANY INCOME TAX COMPUTATION FOR THE TAX YEAR 2020

	K
Taxable Mining profit	39,157,880
Fixed Deposit interest	
(K17,000 x100/85)	20,000
Total taxable business profit	39,177,880
Company income tax on mining profits	
(K39,157,880 x 30%)	11,747,364
Company income tax on fixed deposit interest	
(K20,000 x 35%)	7,000
	11,754,364
Less Tax already paid	
WHT on Fixed deposit interest	
(K20,000 x 15%)	(3,000)
Provisional income tax	(11,289,000)
Company Income Tax payable	462,364

END OF SOLUTIONS

CA ZAMBIA PROGRAMME EXAMINATIONS

APPLICATION LEVEL

CA 2.5: FINANCIAL MANAGEMENT

FRIDAY 18 DECEMBER 2020

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

INSTRUCTIONS TO CANDIDATES

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

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

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

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

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

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

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

8. Present legible and tidy work.

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

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

SECTION A

This question is compulsory and must be attempted.

QUESTION ONE

MIMI Ltd is consideringan acquisition of new machinery that will reduce operating costs. The new machinery will cost K1.5 million and have a four-year life, at the end of which it will have a scrap value of K300,000. To operate the machinery, a license will be required and the fee of K100,000 is payable at the end of the first year. This license fee will increase by 5% per year in each subsequent year. The new machinery is expected to reduce operating costs by K6 per unit in current price terms. It is expected that when MIMI Ltd would finance the acquisition through a four-year bank loan paying interest at an annual before-tax rate of 8.57% per year. Forecast sales and production volumes over the life of the new machinery are expected to be as follows:

Year	1	2	3	4
Sales & Production units	65,000	75,000	100,000	82,000

Alternatively, MIMI Ltd could lease the new machinery. The company would pay four annual lease rentals of K510,000 per year, payable in advance at the start of each year. The annual lease rentals include the cost of the license fee. If MIMI Ltd buys the new machinery it can claim capital allowances on the investment on a 25% reducing balance basis. The company pays taxation one year in arrears at an annual rate of 30%. MIMI Ltd has an after-tax weighted average cost of capital of 10% per year.

MIMI Ltd is also planning on replacing 10 of its motor vehicles in the near future. Each new vehicle will cost K150,000. The trade-in value of each new vehicle declines over time as follows:

Age of Motor Vehicle(years)	1	2	3
Trade-in value (ZMW/Vehicle	113,500	91,000	62,100

The servicing and parts for each motor vehicle will cost K10,000 in the first year and this cost is expected to increase by 30% per year as each vehicle grows older. Cleaning the interior and exterior of each motor vehicle to keep it up to the standard will cost K5,000 per car in the first year and this cost is expected to increase by 30% per year.

Required:

(a) Evaluate whether MIMI Ltd should lease or buy the machinery technology. (15 marks)

(b) Using the equivalent annual cost method, evaluate whether MIMI Ltd should replace its motor vehicles after one year, two years, or three years. Ignore taxation and inflation.(15 marks)

(c) Discuss the internal sources of finance that may be available to MIMI Ltd.
(10 marks)

[Total: 40Marks]

SECTION B

Attempt any three(3) questions in this section.

QUESTION TWO

Details related to Euston Inc's financial statements as at 31 December 2019 were as follows:

Income Statement	
Item	Value
Turnover	K16 million
Expected Annual Turnover Growth	8.4%
Cost of Sales	K10.88 million
Indirect Expenses	K1.44 million
Taxation Rate	30%

Statement of Financial Position		
	K'000	**K'000**
Non-current assets		22,000
Current assets		
Inventory	2,400	
Trade receivables	2,200	
		4,600
Total assets		26,600
	K'000	**K'000**
Equity finance:		
Ordinary shares	5,000	
Reserves	7,500	
Equity		12,500
Long-term bank loan		10,000
		22,500
Current liabilities		
Trade payables	1,900	
Overdraft	2,200	
		4,100
Total Equity and Liabilities		26,600

Thelong-termbankloanhasafixedannualinterestrateof8%peryear.

The following accounting ratios have been forecast for 2020:

Gross profit margin:	30%
Operating profit margin:	20%
Dividend payout ratio:	50%
Inventory turnover period:	110 days
Trade receivables period:	65 days
Trade payables period:	75 days

Overdraft interestinthenextyearisforecast tobe K140, 000. Nochangeisexpected in thelevelof non-current assets and depreciation should beignored.

Required:

(a) Preparethefollowingforecastfinancialstatementsfor Euston Inc usingtheinformationprovided:

(i) anincomestatementfor 2020;and

(ii) a statement of financial position at the end of 2020

(10 marks)

(b) Analyse the trends in the accounting ratios for the two financial years and discussthe financialperformanceof Euston Inc. in relation to working capital management.
(10marks)

[Total: 20 Marks]

QUESTION THREE

AMI processing a profitable company in the manufacturing industry is considering acquiring machinery. The machinery could either be leased or purchased outright.

OPTION 1: PURCHASING MACHINERY

The purchase cost of the machine is K0.6 million. The expected useful life of the machine is 5 years and it has a scrap value of K0.1million. AMI intends to purchase the machine via a 5 year bank loan. The cost of borrowing is 8% per annum pre-tax. Maintenance costs are K0.04million per annum. Capital allowances are 20% per annum on reducing balance.

OPTION 2: LEASING MACHINERY.

The annual operating lease rentals are K0.25 million payable at the beginning of the year. Corporation tax is 35% per annum payable one (1) year in arrears.

Required:

(a) Evaluate whether AMI should purchase or lease the new machinery via an operating lease. (10 marks)

(b) Explain why the lease option could be considered more attractive to AMI than the purchase option (ignore the results of your evaluation in part a) (10 marks)

[Total: 20 Marks]

QUESTION FOUR

Extracts of the financial statements of Bet Zambia Ltd for the year ended 31 December 2019 are as follows:

Income statement

	K'000
Profit before interest and tax	12,000

Interest	(3000)
Profit before tax	9,000
Income tax expense	(3,000)
Profit for the period	6,000
Dividends	(2,000)
Retained profit for the period	4,000

Balance sheet

	K'000	K'000
Ordinary shares, par value 50ngwee	5,000	
Retained earnings	15,000	
Total equity		20,000
8% loan notes, redeemable in three years' time		30,000
Total equity and non-current liabilities		50,000

Average data on companies similar to Bet Zambia Inc:

Interest coverage ratio	8 times
Long-term debt/equity (book value basis)	80%

The board of directors of the company is considering several proposals that have been tabled by its management. Each proposal is independent of any other proposal.

Dividend Increase

The current dividend per share should be increased by 20% in order to make the company more attractive to equity investors.

Bond Issue

A bond issue should be made in order to raise K15 million of new debt capital. Although there are no investment opportunities currently available, the cash raised would be invested on a short-term basis until a suitable investment opportunity arose. The bonds would pay interest at a rate of 10% per year and be redeemable in eight years' time at par.

Rights Issue

A 1 for 4 rights issue should be made at a 20% discount to the current share price of K2.30 per share in order to reduce gearing and the financial risk of the company.

Required:

(a) Analyse and discuss the dividend increase. (4 marks)

(b) Evaluate and discuss the bond issue. (7 marks)

(c) Calculate the theoretical ex rights price per share and the amount of finance that would be raised under Proposal C. (5 marks)

(d) Discuss the proposal to use these funds to reduce gearing and financial risk.

(4 marks)

[Total: 20 Marks]

QUESTION FIVE

Pefc Zambia Plc. is a medium sized rapidly growing company in the retail industry.

The company is considering an investment of K20million.It has two options of financing this investment. One would be to borrow from the bank for two (2) years at 10% per annum. The other would be by means of a 1 for 4 rights issue.

The Chairman of the Board of Directors is concerned with the company's level of financial gearing. Industry average gearing (prior charge capital/total capital employed) is currently 50%. She has asked you to review the company's financial Statements for the year ended 31 December 2019.

Pefc Statement of Financial Position as at 31 December 2019

	K'000	K'000
Total Assets		**73,440**
Less: Liabilities		
Corporate Bonds	31,800	
2 year Bank Loan	2,800	
1 year Bank Loan	1,900	
Bank Overdraft	1,600	
Trade Payables	1,340	
Total Liabilities		**39,440**
Capital and Reserves		**34,000**

Notes:

(1) The capital of the company is made up of 5,500,000 Issued ordinary shares of K2 each and 2,500,000 preference shares of K2 each.

(2) The reserves of the company are made up of share premium of K3,600,000 and retained earnings of K14,400,000.

(3) The company has no dividend in its capital structure as the directors implemented a policy of zero dividend payments from the year 2016 to the year 2022.

Required:

Write a report to the finance director that includes the following:

(a) A discussion of the advantages and disadvantages of the zero dividend policy adopted by the directors and its impact on shareholder wealth maximization.

(8 marks)

(b) Calculation of the financial gearing ratio under each of the three scenarios provided below:

(i) The company does not take up the investment.

(ii) The company finances the investment by means of borrowing.

(iii) The company finances the investment by means of the rights issue.

(10 marks)

(c) A recommendation for the company of a proposed course of action based on your calculations. (2 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

$$s_1 = S_0 x \frac{(1+h_c)}{(1+h_b)} \qquad f_0 = s_0 x \frac{(1+i_c)}{(1+i_b)}$$

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$

Where r = discount rate
n = number of periods until payment

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1-(1+r)^{-n}}{r}$

Where r = discount rate
n = number of periods

Discount rate (r)

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

SUGGESTED SOLUTIONS CA2.5
SOLUTION ONE

(a) **Net present value of purchasing new technology**

Discount rate = 8.6% × (1 - 30%) = 6%

Year	*0*	*1*	*2*	*3*	*4*	*5*
	K'000	K'000	K'000	K'000	K'000	K'000
Capital costs	(1,500)					
Licence fee		(100)	(105)	(110)	(116)	
Disposal proceeds					300	
Tax license @30%			30	32	33	35
WDA (W)			113	84	63	100
Net cash flows	(1,500)	(100)	38	6	280	135
Discount at 6%	1.000	0.943	0.890	0.840	0.792	0.747
PV of cash flow	(1,500)	(94)	34	5	222	101
NPV of cash flow	**K(1,232)**					

Working

Writing down allowances

		Capital Year of allowance	*Tax benefit*	*cash flow*
		K'000	K'000	K'000
Initial investment	1,500			
Allowances at 25% pa on a reducing balance basis over 4 years				
Year 1	(375)	(375)	113	Y2
	1,125			
Year 2	(281)	(281)	84	Y3
	844			
Year 3	(211)	(211)	63	Y4
	633			
Year 4				
Proceeds on sale	(300)			
Balancing allowance	333		100	Y5

Net present value of leasing new technology

Year	*0*	*1*	*2*	*3*	*4*	*5*
	K'000	K'000	K'000	K'000	K'000	K'000

Annual lease rentals	(510)	(510)	(510)	(510)		
Tax rentals @ 30%			153	153	153	153
Net cash flows	(510)	(510)	(357)	(357)	153	153
Discount at 6%	1.000	0.943	0.890	0.840	0.792	0.747
PV of cash flow	(510)	(481)	(318)	(300)	121	114

NPV of cash flow K **(1,056)**

Therefore, the new machinery should be **leased** rather than purchase.

b)

Replace every year

Year	*0*	*1*
Initial cost	(150,000)	
Trade-in value		113,500
Service cost		(10,000)
Cleaning cost		(5,000)
Net cost	(150,000)	98,500
Discount factor @ 10%	1.000	0.909
Present value	(150,000)	89,537
NPV	(60,483)	
Annuity factor	0.909	

Equivalent annual cost (66,516) pa

Replace every 2 years

Year	*0*	*1*	*2*
Initial cost	(150,000)		
Trade-in value			91,000
Service cost		(10,000)	(13,000)
Cleaning		(5,000)	(6,500)
Net cost	(150,000)	(15,000)	71,500
Discount factor 10%	1.000	0.909	0.826
Present value	(150,000)	(13,635)	59,059
NPV	(10,603)		

Annuity factor 1.735 for 2 years

Equivalent annual cost (60,274) pa

Replace every 3 years

Year	*0*	*1*	*2*	*3*
Initial cost	(150,000)			
Trade-in value				62,100
Service cost		(10,000)	(13,000)	(16,900)
Cleaning cost	(5,000)	(6,500)	(8,450)	
Net cost	(150,000)	(15,000)	(19,500)	36,750
Discount factor @ 10%	1	0.909	0.826	0.751

Present value (150,000) (13,635) (16,107)
27,599
NPV (15,439)
Annuity factor 2.487 for 2 years
Equivalent annual cost (61,175) pa

It is cheaper to replace after two years.

c)
Retained earnings is surplus cash that has not been needed for operating costs, interest payments, tax liabilities, asset replacement or cash dividends. For many businesses, the cash needed to finance investments will be available because the earnings the business has made have been retained within the business rather than paid out as dividends. The interaction of investment, financing and dividend policy is the most important issue facing many businesses. Retained earnings belong to shareholders and are classed as equity financing. The 'retained earnings' or retained profits figure in the financial statements is not necessarily the cash or funds that can be invested. It is the cash generated from retention of earnings which can be used for financing purposes. A company may have substantial retained profits in its statement of financial position but no cash in the bank and will not therefore be able to finance investment from retained earnings.

Advantages of using retained earnings

- Retained earnings are a flexible source of finance; companies are not tied to specific amounts or specific repayment patterns.
- Using retained earnings does not involve a change in the pattern of shareholdings and no dilution of control.
- Retained earnings have no issue costs.

Disadvantages of using retained earnings

- Shareholders may be sensitive to the loss of dividends that will result from retention for reinvestment, rather than paying dividends.
- Not so much a disadvantage as a misconception, that retaining profits is a cost-free method of obtaining funds. There is an opportunity cost in that if dividends were paid, the cash received could be invested by shareholders to earn a return.

SOLUTION TWO

(a) (i) Forecast Income Statement

Details	K'000
Turnover (16·00m x 1·084)	17,344
Cost of sales (17·344m – 5·203m)	(12,141)
Gross profit (17·344m x 30%)	5,203
Indirect expenses (5·203m – 3·469m)	(1,734)
Net profit (17·344m x 20%)	3,469
Interest expense ((10m x 0·08) + 0·140m)	(940)
Profit before tax	2,529
Tax (2·529m x 0·3)	(759)
Profit after tax	1,770
Dividends (1·770m x 50%)	(885)
Retained profit	885

2(b)(ii) Forecast Statement of Financial Position:

	K'000	K'000
Non-current assets		22,000
Current assets		
Inventory	3,660	
Trade receivables	3,090	
		6,750
Total assets		28,750
Equity finance:		
Ordinary shares	5,000	
Reserves	8,390	
		13,390
Bank loan		10,000
		23,390
Current liabilities		
Trade payables	2,490	
Overdraft	2,870	
		5,360
Total liabilities		28,750

Workings	**K'000**
Inventory (12·141m x (110/365)	3,660
Trade receivables (17·344m x (65/365))	3,090
Trade payables (12·141m x (75/365))	2,490

Reserves (7·5m + 0·885m)	8,390
Overdraft (28·75m – 23·39m – 2·49) (balancing figure)	2,870

2(b) Working capital management

The financialanalysisshows a deteriorationinkeyworkingcapitalratios.

-Theinventoryturnoverperiodisexpectedtoincreasefrom81daysto110days,
-Thetradereceivablesperiodisexpectedtoincreasefrom50daysto65daysand
- Thetradepayablesperiodisexpectedtoincreasefrom64daysto75days.

Euston Inc is forecasting aworseninginitsworkingcapitalposition.Thecurrentandforecastvaluescouldbecompare dto sectorvaluesinordertoconfirmwhether they are realistic.

Becausecurrentassetsareexpectedtoincreasebymorethancurrentliabilities,thecurrent ratioandthequickratioarebothexpectedtoincreaseinthenextyear,thecurrentratiofrom1· 12timesto1·26timesandthequickratiofrom0·54timesto0·58times.Again,comparisonwit hsectoraveragevaluesfortheseratioswouldbeusefulinmakinganassessmentoftheworkin gcapitalmanagementof Euston Inc.

Thebalancebetweentradepayablesandoverdraftfinanceisapproximatelythesameinboth years(tradepayablesare46%ofcurrentliabilitiesinthecurrentstatementoffinancialpositio nand47%ofcurrentliabilitiesintheforecaststatementoffinancialposition),althoughrelian ceonshort-termfinanceisexpectedtofallslightlyinthenextyear.

Thedeterioratingworkingcapitalpositionmaybelinkedtoanexpecteddeteriorationintheo verallfinancialperformanceof Euston Inc. Forexample,theforecastgrossprofitmargin(30%)andnetprofitmargin(20%)arebothless thanthecurrentvaluesoftheseratios (32%and 23%respectively),and despitethe increaseinturnover,returnon capitalemployed (ROCE)isexpectedtofallfrom16·35%to14·83%.

Extracts from current (2019) income statement:	
	K'000
Turnover	16,000
Cost of sales	(10,880)
Gross profit	5,120
Indirect expenses	(1,440)
Net profit	3,680

	Current (2019)	Forecast (2020)
Gross profit margin (100 x 5·12/16·00)	32%	30%

Net profit margin (100 x 3·68/16·00)	23%	20%
ROCE (100X3.68/22.5)	16.35%	14.83%
(100X3.469/23.39)		
Inventory Period (365x2.4/10.88)	81 days	110 days
Receivables Period (365x2.2/16.00)	50 days	65 days
Payables Period (365x1.9/10.88)	64 days	75 days
Current Ratio (4.6/4.1)	1.12 times	1.26 times
(6.75/5.36)		
Quick ratio (2.2/4.1)	0.54 times	0.58 times
(3.09/5.36)		

Students discussing changes in Euston Inc's policy for financing working capital over the two years as outlined below can also be given partial credit (up to 2 additional marks for discussion ofperformance in working capital management as part of solution 2(c)):

Workingcapitalfinancingpoliciescanbeclassifiedintoconservative,moderate(ormatching)andaggressive,dependingontheextenttowhichfluctuatingcurrentassetsandpermanentcurrentassetsarefinancedbyshort-termsourcesoffinance.Permanentcurrentassetsarethecorelevelofinvestmentincurrentassetsneededtosupportagivenlevelofbusinessactivityorturnover,whilefluctuatingcurrentassetsarethechangesinthelevelsofcurrentassetsarisingfromtheunpredictablenatureofsomeaspectsofbusinessactivity.

Aconservativeworkingcapitalfinancingpolicyuseslong-termfundstofinancenon-currentassetsandpermanentcurrentassets,aswellasaproportionoffluctuatingcurrentassets.Thispolicyislessriskyandlessprofitablethananaggressive workingcapitalfinancingpolicy,whichusesshort-termfundstofinancefluctuatingcurrentassetsandaproportionofpermanentcurrentassetsaswell.Betweenthesetwoextremesliesthemoderate(ormatching)policy,whichuses long-termfundstofinancelong-termassets(non-currentassetsandpermanentcurrentassets)andshort-termfundstofinanceshort-termassets(fluctuatingcurrentassets).

Thecurrentstatementoffinancialpositionshowsthat Euston Incusestradepayablesandanoverdraftassourcesofshort-termfinance.Intermsofthebalancebetweenshort-andlong-termfinance,89%ofcurrentassets(100x4·1/4·6)arefinancedfromshort-termsourcesandonly11%arefinancedfromlong-termsources.Sinceahighproportionofcurrentassetsarepermanentinnature,thisappearstobeaveryaggressiveworkingcapitalfinancingpolicywhichcarriessignificantrisk.Iftheoverdraftwerecalledin,forexample, Euston Incmighthavetoturntomoreexpensiveshort-termfinancing.

Theforecaststatementoffinancialpositionshowsalowerrelianceonshort-termfinance,since79%ofcurrentassets(100x5·36/6·75)arefinancedfromshort-

termsourcesand21%arefinancedfromlong-termsources.Thisdecreasedrelianceonanaggressivefinancingpolicyissensible,although withaforecastinterestcoverageratioofonly3·7times(3·469/0·94), Euston Inc haslittlescopefortakingonmorelong-termdebt.

Anincreaseinequityfundingtodecreaserelianceonshort-termfinancecouldbeconsidered.

SOLUTION THREE

Working 1

	k000	Allowance	tax saved
cost of equipment	600		
capital allowances	120		42
ITV year 1	480		
capital allowances	96		33.6
ITV year 2	384		
capital allowances	76.8		26.88
ITV year 3	307.2		
capital allowances	61.44		21.504
ITV year 4	245.76		
scrap value	100		
balancing allowance	145.76		51.016

•

NET PRESENT VALUE OF PURCHASING MACHINERY

YEAR		0	1	2	3	4	5	6
		k000	k000	k000	k000	k000	k000	k000
Equipment cost and scrap value		-600					100	
Maintenance costs			-40	-40	-40	-40	-40	
Taxation				14	14	14	14	14
Tax saved on capital allowances				42	33.6	26.88	21.504	51.016
Net cash flows		-600	-40	16	7.6	0.88	95.504	65.016
Cost of capital	8*(1-0.35)							
	approx 5%	1	0.952	0.907	0.864	0.823	0.784	0.746
Present Value		-600	-38.08	14.51	6.57	0.72	74.88	48.50
Net Present value		**-492.9**						

NET PRESENT VALUE OF LEASING MACHINE							
YEAR	0	1	2	3	4	5	6
	k000	k000	k000	k000	k000	k000	k000
Operating lease rentals	-250	-250	-250	-250	-250		
taxation			87.5	87.5	87.5	87.5	87.5
	_	_	_	_	_	_	_
	-250	-250	162.5	-162.5	-162.5	87.5	87.5
Cost of capital approx 5%	1	0.952	0.907	0.864	0.823	0.784	0.746
Present value of cash flow	-250	-238	147.3	-140.4	133.74	68.6	65.28
Net Present Value	**-775.56**						
It will be cheaper to purchase the machine than to lease by (775.56-492.9)=k282,600							
AMI should therefore purchase the machine.							

b) Leasing might be attractive to AMI:

(I) If AMI does not have enough cash to pay for the machine and would have difficulty in obtaining a bank loan to buy the machine.

(ii) Finance leases are cheaper than bank loan since the lesser is prepared to lend at a low cost because he possesses greater security. I.e. the ownership of the asset.

(iii) As leases, once negotiated are legally binding and cannot be withdrawn with immediate effect in the way an overdraft facility might be.

(iv) AMI may find the tax relief advantageous.

(v) The leased machine does not have to be shown in AMI balance sheet and so AMI balance sheet shows no increase in its gearing ratio,

(vi) The machine will be leased for a shorter than it's expected useful life. This suitable for high-tech equipment were technology is continuously improving and the risk of obsolesces is high.

(vii) The lessor deals with servicing maintenance and administration.

SOLUTION FOUR

4(a)Bet Zambia Inc paidatotaldividendof K2millionor20 ngwee pershareaccordingtotheincomestatementinformation.Anincreaseof20%wouldmakethis K2·4millionor24 ngwee pershareandwouldreducedividendcoverfrom3timesto2·5times.Itisdebatablewhetherthisin creaseinthecurrentdividendwouldmakethecompanymoreattractivetoequityinvestors,whou seavarietyoffactorstoinformtheirinvestmentdecisions,notexpecteddividendsalone.Forexam ple,theywillconsiderthebusinessandfinancialriskassociatedwithacompanywhendecidingont heirrequiredrateofreturn.

Itisalsounclearwhatobjectivethe Management hadinmindwhensuggestingadividendincrease.Theprimaryfinancialmanagementobjectivei sthemaximisationofshareholderwealthandif the company isfollowingthisobjective,thedividendwillalreadybesetatanoptimallevel.Fromthisperspective, adividendincreaseshouldarisefromincreasedmaintainableprofitability,notfromadesireto'ma kethecompanymoreattractive'.Increasingthedividendwillnotgenerateanyadditionalcapitalf or the company,sinceexistingsharesaretradedonthesecondarymarket.

MillerandModiglianihaveshownthat,inaperfectcapitalmarket,sharepricesareindependentoft helevelofdividendpaid.Thevalueofthecompanydependsuponitsincomefromoperationsandn otontheamountofthisincomewhichispaidoutasdividends.Increasingthedividendwouldnot necessarily makethecompanymoreattractivetoequityinvestors,butwouldattractequityinvestorswhode siredthenewlevelofdividendbeingoffered.Currentshareholderswhoweresatisfiedbythecurre ntdividendpolicycouldtransfertheirinvestmenttoadifferentcompanyiftheirutilityhadbeendec reased.

Theproposaltoincreasethedividendshouldthereforeberejected,perhapsinfavou rofadividendincreaseinlinewithcurrentdividendpolicy.

(b)Theproposaltoraise K15millionofadditionaldebtfinancedoesnotappeartobeasensibleone,giventhecurrentfinanci alpositionof Bet Zambia Inc.Thecompanyisveryhighlygearediffinancialgearingmeasuredonabookvaluebasisisconsid ered.Thedebt/equityratioof150%isalmosttwicetheaverageof similarcompanies.Thisnegativeviewofthefinancialriskofthecompanyisreinforcedbytheintere stcoverageratio,whichatonlyfourtimesishalfthatof similar companies.

Raisingadditionaldebtwouldonlyworsentheseindicatorsoffinancialrisk.Thedebt/equityratio wouldriseto225%onabookvaluebasisandtheinterestcoverageratiowouldfallto2·7times,sug gestingthat the company wouldexperiencedifficultyinmakinginterestpayments.

Theproposedusetowhichthenewly-raisedfundswouldbeputmeritsfurtherinvestigation.Additionalfinanceshouldberaisedwheniti sneeded,ratherthanbeingheldforspeculativepurposes.Untilasuitableinvestmentopportunity comesalong, the companywillbepayinganopportunitycostonthenewfinanceequaltothedifferencebetweenthe

interestrateonthenewdebt(10%)andtheinterestpaidonshort-term investments.Thisopportunitycostwoulddecreaseshareholderwealth.Evenifaninvestmentop portunityarises,itisveryunlikelythatthefundsneededwouldbeexactlyequalto K15m.

Theinterestchargeintheincomestatementinformationis K3mwhiletheinterestpayableonthe8%loannotesis K2·4m(30x0·08).Itisreasonabletoassumethat K0·6mofinterestisduetoanoverdraft.Assumingashort-terminterestratelowerthanthe8%loannoterate–say6%–impliesanoverdraftofapproximately K10m(0·6/0·06),whichisone-thirdoftheamountofthelong-termdebt.Thedebt/equityratiocalculateddidnotincludethissignificantamountofshort-termdebtandthereforeunderestimatesthefinancialriskof Bet Zambia Plc.

Thebondissuewouldberepayableineightyears'time,whichisfiveyearsaftertheredemptiondat eofthecurrentloannoteissue.Theneedtoredeemthecurrent K30mloannoteissuecannotbeignoredinthefinancialplanningofthecompany.Theproposaltora ise K15moflong-termdebtfinanceshouldarisefromastrategicreviewofthelong-termandshort-termfinancingneedsof the company,whichmustalsoconsiderredemptionorrefinancingofthecurrentloannoteissueand,p erhaps,reductionofthesizeableoverdraft,whichmaybecloseto,orinexcessof,itsagreedlimit.

Given the above concernsandconsiderationsdiscussed,theproposaltoraiseadditionaldebtfinancei s notrecommended.

Analysis
Currentgearing(debt/equityratiousingbookvalues)=30/20=150%Revisedgearing(debt/eq uityratiousingbookvalues)=(30+15)/20=225%
Currentinterestcoverageratio=12/3=4times
Additionalinterestfollowingdebtissue=15mx0·1=
K1·5mRevisedinterestcoverageratio=12/(3+1·5)=2·7times.

c) Analysis

Rightsissueprice=2·30x0·8= K1·84

Numberofnewsharesissued=(5/0·5)/4=2·5million
Cashraised=1·84x2·5m= K4·6million
Numberofsharesinissueafterrightsissue=10+2·5=12·5million
Currentgearing(debt/equityratiousingbookvalues)=30/20=150%
Revisedgearing(debt/equityratiousingbookvalues)=30/24·6=122%
Currentinterestcoverageratio=12/3 =4timesCurrentreturnonequity(ROE)=6/20=30%

Intheabsenceofanyindicationastothereturnexpectedonthenewfunds,wecanassumetherate ofreturnwillbethesameasonexistingequity,anassumptionconsistentwiththecalculatedtheor eticalexrightsprice.
After-taxreturnonthenewfunds=4·6mx0·3= K1·38million
Before-taxreturnonnewfunds=1·38mx(9/6)= K2·07million
Revisedinterestcoverageratio=(12+·07)/3 =4·7times

(d)

Thecurrentdebt/equityandinterestcoverageratiossuggestthatthereisaneedtoreducethefi nancialriskof Bet Zambia Plc.Arightsissuewouldreducethedebt/equityratioofthecompanyfrom150%to122%onabook valuebasis,whichis 47%higherthantheaveragedebt/equityratioofsimilarcompanies.Aftertherightsissue,financi algearingisstillthereforehighenoughtobeacauseforconcern.

Theinterestcoverageratiowouldincreasefrom4timesto4·7times,againassumingthatthenewf undswillearnthesamereturnasexistingequityfunds.Thisisstillmuchlowerthantheaverageinte restcoverageratioofsimilarcompanies,whichis8times.While4·7timesisasaferlevelofinterestc overage,itisstillsomewhatonthelowside.

Noexplanationhasbeenofferedfortheamounttoberaisedbytherightsissue.Whyhasthe MANAGEMENTproposedthatK4·6mberaised?Iftheproposalistoreducefinancialrisk,whatlevel offinancialgearingandinterestcoveragewouldbeseenassafebyshareholdersandotherstakehol ders?Whatusewouldbemadeofthefundsraised?Iftheyareusedtoredeemdebttheywillnothave agreatimpactonthefinancialpositionofthecompany,infactitappearslikelythatthattheoverdrafti stwiceasbigastheamountproposedtoberaisedbytherightsissue.Therefinancingneedtherefore appearstobemuchgreaterthan K4·6m.Ifthefundsaretobeusedforinvestmentpurposes,furtherdetailsoftheinvestmentproject ,itsexpectedreturnanditslevelofriskshouldbeconsidered.

Thereseemstobenoconvincing reason fortheproposedrightsissueanditcannotthereforeberecommended,atleastonfin ancialgrounds.

SOLUTION FIVE

To: The Chairperson of the Board

From: The Finance Manager

Date: 24/02/2020

SUBJECT: REVIEW OF Pefc ZAMBIA RECENT FINANCIAL STATEMENTS.

I have carried out a review of the Statement of financial position for the year ended 31st December 2019 with regards to the dividend policy and the level of gearing given the two financing options available to MS.

I have attached my calculations and recommendations in the appendix to the report.

APPENDIX TO THE REPORT

- Pefc company policy of zero dividend for the six years period 2016-2022 sensible for a rapidly growing company. All the post tax profits are being re-invested in the company's business. By adopting this strategy Pefc reduces to a minimum its need to raise new capital from the market. Issue costs are reduced or eliminated and the company has greater flexibility in its investment program me since decision taking is not dependant on gaining market approval. Furthermore since the company is probably investing heavily, its taxation liability may well be small.

  The disadvantages of using retained earnings to finance its investments would be that the company will not benefit from tax savings on interest payments on debt.

  Similarly a zero dividend will delay the return obtained by investors to a later debt.

  Pefc would only be attractive to shareholders who do not require an income stream from their investments and prefer to obtain a return through capital growth.

  Therefore Pefc may maximize shareholder wealth because the value of the company will be unaffected by dividend policy as the dividend forgone is equal to the capital gain on disposal of the shares.

PRIOR CHARGE CAPITAL	K000
Preferred shares	5000
Corporate bonds	31800

Long-term loans	2800
Prior charge capital (ignoring short term debt)	39600
Add: short term loans	1900
Bank Overdraft	1600
Prior charge capital Plus short term debt	43100

- CAPITAL EMPLOYED

Total Assets	73440
Less: Current Liabilities	(4840)
Capital Employed	68600

SCENARIO 1
Financial gearing = (k43100/k68600)*100=62.8%
Or Financial gearing= (k39600/k68600)*100=57.7%

SCENARIO 2

Prior charge capital (ignoring short term debt)	39600
Bank loan	20000
Prior charge capital revised	59600

Prior charge capital PLUS short term debt	43100
Bank loan	20000
Prior charge capital revised	63100

Financial gearing= (K63100/K88600)*100=71.2%
Or Financial Gearing = (K59600/K88600)*100=67.2%

SCENARIO 3
Capital employed = k68600+k20000=k88600

Financial gearing= (K39600/K88600)*100=44.7%
OR Financial Gearing= (K43100/K88600)*100=48.65%

- Recommendation
  Based on my calculations, financing the investment by means of a rights issue is the best course of action to take as the financial gearing will not exceed the industry average of 50%. (Scenario 3)

END OF SOLUTIONS