



The University of Zambia

Graduate School of Business

Company Law (BAF 2211)

2021 Academic Year Final Examination

Date: 27 January 2022

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**INSTRUCTIONS:**

1. This examination is divided in **Four (4) Parts – A, B, C and D.**
  2. Answer Four (4) questions.
  3. **Part A** is compulsory. Answer one question from Part B, Part C and Part D.
  4. Time allowed: **Three (3) hours plus five (5) minutes** to read through the examination paper.
  5. This examination carries a total of **60 marks.**
  6. Mobile telephones, tablets, watches, clocks or any other form of computing or electronic instruments are **not allowed** into the examination room.
  7. Candidates are permitted to bring the Companies Act No. 10 of 2017 and the Corporate Insolvency Act No. 9 of 2017 into the examination room.
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## PART A - COMPULSORY

### Question One

Mary Mulenga owned and operated a transportation business as a sole trader since 2009. Her friends wanted to become her business partners. To ring fence her other businesses, Mary and her friends agreed to turn the transportation business into a limited liability company to be named Hillside Logistics Limited (the "**Company**").

The Company was incorporated on 10 June 2019. Upon incorporation, the Company purchased Mary's business on credit at an excessive price for its value. As security for the debt, the Company issued to Mary, ZMW 1,000,000 in debentures secured by all the assets of the Company.

At incorporation, Mary took 15,000 of the Company's 20,000 shares as part payment from the Company for her old business. Jane, Kate, and Grace subscribed for 1,000 shares each. As consideration for the shares, Jane and Kate agreed to provide services to the Company. Grace agreed to pay for the shares in cash. Further, Mary, Jane and Kate were the first directors of the Company.

During the course of the Company's operations Mary as the Chief Executive Officer obtained an unsecured loan for the sum of ZMW 1,000,000 from Lima Loans Limited ("**LLL**") to be used as operating capital of the Company. However, Mary transferred a sum of ZMW 500,000 to her personal account as part payment of the debt which the Company owed to Mary.

Mary also caused the company to lose ZMW 200,000 by her practice of signing blank cheques and then passing them to his personal assistant, Ben, to complete and forward to creditors. Ben had made certain cheques payable to himself.

On 15 February 2020, an audit carried out on the Company revealed that the Company was insolvent and did not have any viable assets as all the motor vehicles were not roadworthy. The audit also revealed that at the time the vehicles were transferred to the Company, the vehicles value had deteriorated and therefore the Company overpaid. In light of this LLL has approached you for advice on the following issues:

- a) Whether LCC can sue Mary, Jane, Kate and Grace for the unpaid shares;
- b) Whether the debenture issued to Mary is valid;
- c) Whether Mary's action to transfer the sum of ZMW 500,000 was legal;
- d) Whether Mary is liable for Ben's actions;
- e) Whether LLL can sue Mary; and
- f) What alternative legal course of action does LLL have and which of the available routes would you advise her to take?

### Required:

With the aid of appropriate legal authorities, advise LLL on the issues above

## **PART B**

### **Question Two**

With aid of the appropriate provisions of the Companies Act

- a) Explain what is meant by the 'right of pre-emption' on the allotment of shares?
- b) Indicate the type of resolution that is required to take the following decisions:
  - (i) Removal of a director;
  - (ii) Alteration of the Articles of Association;
  - (iii) Alteration of share capital;
  - (iv) Winding up a company; and
  - (v) Approving the sale of an assets.

**(14 Marks)**

### **Question Three**

With the aid appropriate legal provisions

- a) Explain three duties of a liquidator; and
- b) The different types of security charges.

**(14 Marks)**

## **PART C**

### **Question Four**

With the aid of appropriate authorities, discuss

- (a) The difference types of directors under the Companies Act;
- (b) how the powers of directors are controlled or limited by the shareholders and Companies Act;

**(14 Marks)**

### **Question Five**

With the aid of appropriate authorities, discuss how a company may raise finances for its operations.

**(14 Marks)**

## **PART D**

### **Question Six**

Discuss the statutory protection that is offered to a third party who enters into a contract with a person purporting to act on behalf of a company which is not yet incorporated.

**(14 Marks)**

### **Question Seven**

With the aid of the provisions of the Companies Act discuss how a person may become or cease to be shareholder in a company.

**(14 marks)**

**End of Examination**





The University of Zambia

Graduate School of Business

Company Law (BAF 2211)

2020 Academic Year Final Examination

Date: 15 September 2020 Time: 14:00 to 17:00 hours

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**INSTRUCTIONS:**

1. This examination is divided in **Four (4) Parts – A, B, C and D.**
  2. Answer Four (4) questions.
  3. **Part A** is compulsory. Answer one question from Part B, Part C and Part D.
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## PART A - COMPULSORY

### Question One

Chewe and Cheza were running an animal husbandry business as partners. Chewe owns a 200 hectares farm which he partially used for keeping various animals for the business, while Cheza operated the logistics side of the business using fifteen trucks he owns as a sole trader under the name and style of Cheza Investments. Chewe and Cheza had other businesses which they operated and managed independently. For instance, Chewe is a majority shareholder in a small-scale mining company Crescent Mining Investments Limited ("**CIL**"), while Cheza uses the trucks to transport and supply fertiliser.

Chewe and Cheza decided to combine their experience and resources and incorporated a company called Zed Meat International Limited ("**Zed Meat**") on 19 November 2019. Chewe, Cheza and CIL are the shareholders of Zed Meat, holding 5,000 shares fully paid shares each. The shares have a nominal value of ZMW 1. Chewe and Cheza are the only directors and the articles of association of Zed Meat restricts the business of Zed Meat to that of animal husbandry and the supply of meat.

To leverage the financial position of their respective businesses to source for funding for Zed Meat, CIL signed a corporate guarantee to guarantee the debts of Zed Meat on 10 November 2019. On the same date, Cheza entered into a number of oral agreements for the supply of meat to Shoprite, Pick and Pay and Merlisa in Lusaka. In accordance with the agreement Pick and Pay and Merlisa on 12 November 2019 paid an upfront deposit of 40% of the purchase price with the balance to be settled upon delivery of the meat on 10 January 2020. Cheza also informed Shoprite, Pick and Pay and Merlisa that as he is in the process of incorporating a company and the agreements are for and on behalf of Zed Meat. Upon being informed of this development, Shoprite requested Cheza to sign a Shoprite standard supply contract for and on behalf of Zed Meat which he did on 18 November 2019.

On 20 November 2019, all the movable assets and rights and obligations of their respective businesses were transferred to Zed Meat from the date of incorporation. A formal agreement to effect this was signed between Zed Meat, Chewe and Cheza.

On the basis of the corporate guarantee from CIL, ZED Meat obtained a loan for ZMW 5,000,000 plus interest from Absa Bank Zambia Plc ("**Bank**") Limited for its working capital on 10 December 2020. Unknown to Chewe, Cheza on 11 December 2019 as a director of Zed Meats also entered into a contract with Keda Farms Limited for the supply of fertiliser.

In January 2020, as a result of the outbreak of foot and mouth disease which killed all the cattle, Zed Meat is failing to meet its obligations which include supplying meat to Shoprite, Pick and Pay and Merlisa and making timely loan repayments to the Bank. The Bank is also attempting to enforce the corporate guarantee or alternatively force a sale of the 200 hectares farm to recover the amounts due. Shoprite, Pick and Pay and Merlisa are demanding for the delivery of the meat, while Keda also demanding for the delivery of the fertiliser.

### Required

Advise Chewe, Cheza and Zed Meat on their potential personal liability for the debts, liabilities, demands and on any other matters that you feel are relevant.

## **PART B**

### **Question Two**

Chimutengo Limited has three directors, John, Peter and James. They are also shareholders but they do not hold a majority of the shares. They seek your advice, with the aid of appropriate authority, on the legal issues arising out of the following situations which have occurred:

- a) Mulenga, the finance director, caused the company to lose ZMW 100,000 by his practice of signing blank cheques and then passing them to his personal assistant, Chopin, to complete and forward to creditors. Chopin has made certain cheques payable to himself and has used the money to pay off his debts.
- b) Proposed sale of 20 trucks whose value has deteriorated which the company has owned for ten years.
- c) A proposed loan for a sum of ZMW 1,000,000 from Absa Bank Zambia Plc.
- d) To increase the salary of the directors by 10%.
- e) The majority shareholder has written to the company secretary, Chrispine, asking him for advice on the legal position in relation to these matters. Without further reference to the board, Chrispine instructed a law firm to prepare the advice at a cost of ZMW 50,000, which the board is refusing to pay.

Required

Advise the directors.

**(14 Marks)**

### **Question Three**

In the case of *Kasengele and Others v Zambia National Commercial Bank Limited* (SCZ Judgment No. 11 of 2000) [2000] ZMSC 20, the Supreme Court of Zambia relying on earlier Supreme Court decisions held that:

- (i) Shareholders enjoy as a matter of right overriding authority over company affairs, even over the wishes of the Board of Directors and Managers.

To what extent is the decision of the Supreme Court watertight in light of the provisions of the Companies Act No. 10 of 2017.

**(14 Marks)**

## **PART C**

The facts below are for question four and five

A friend of yours from South Africa is considering setting up a business in Zambia. Your friend has asked you to draw up a report briefly explaining the following matters with the aid of the provisions of the Companies Act:

### **Question Four**

- (a) The attributes of a private company limited by shares;
- (b) The distinction between a public company and private company; and
- (c) How a company is formed in Zambia.

**(14 Marks)**

### **Question Five**

- (a) How limited companies are controlled and managed;
- (b) The company can raise finance for its operations; and
- (c) How companies are wound up.

**(14 Marks)**

## **PART D**

### **Question Six**

- (a) The notion that a company may have limited liability is a myth. To what extent is this assertion water tight?
- (b) The ultra vires doctrine is well and alive in Zambia's company law jurisprudence. To what extent do you agree with this assertion; and
- (c) three duties of directors?

**(14 Marks)**

### **Question Seven**

With the aid of the provisions of the Companies and Corporate Insolvency Act, explain:

- (a) the difference between an ordinary share and preference share.
- (b) The types and nature of debentures.
- (c) The existence of a company without articles is not only questionable but also impossible. Justify this statement or otherwise

**(14 marks)**

**End of Examination**



The University of Zambia  
Graduate School of Business

Company Law (BAF 2211)

2020 Academic Year Final Examination

Date: 4 February 2021 Time: 09:00 to 12:00 hours

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**INSTRUCTIONS:**

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  2. Answer Four (4) questions.
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## PART A - COMPULSORY

### Question One

Chimuntengo Cement Company Limited (the "**Company**") is a company that manufactures and supplies cement for the Zambian market. Due to increase in the prices of raw materials and stiff competition, the company has been facing financial challenges. As a result, in December 2020, some of the Company's creditors petitioned the High Court for Zambia for the company to be liquidated and nominated Ms. Pamela Tembo to be the liquidator. After her appointment as a provisional liquidator, Ms. Pamela Tembo has prepared a report in which she highlighted the following matters:

- (a) Big Money Lenders Financial Services ("**BML**") in March 2020 advanced a loan of ZMW 5,000,000 to the Company in order to keep it afloat during the difficult times and as security for the loan, BML obtained:
- (i) a floating charge over the company's motor vehicles; and
  - (ii) a fixed charge over the Company's bank accounts and two warehouses situated in the central business district of Lusaka.
- (b) In June 2020 a human resources officer approved and executed an amendment to contracts of employment of the Managing Director and Chief Financial Officer who are both directors of the Company. The amendment increase the salary of the MD and CFO by 25%.
- (c) The Board of Directors in June 2020 approved a new lease agreement relating to the office building used by the Company as its Head Office and owned by its majority shareholder. One of the terms being a rent increasement at rate of 30% from the current rent being paid by the Company.
- (d) The share register as at December 2020 is as follows:

Share Capital	ZMW 100,000
Uncalled Capital	ZMW 10,000
Unissued Capital	ZMW 16,000
Paid up Capital	ZMW 50,000
Authorised Share Capital	ZMW 100,000

- (e) The major liabilities identified as at December 2020 are as follows:

Shareholders Loans	ZMW 500,000
Suppliers	ZMW 4,000,000
Employee Packages	ZMW 5,000,000
Overdrafts	ZMW 700,000
Taxes	ZMW 1,500,000
Local Authority Rates	ZMW 200,000

### Required

Advise the provisional liquidator regarding her basic duty and explain the law relating to the matters that she has highlighted in her report.

(21 Marks)

## PART B

### Question Two

In 2017 John and Peter operated as partners under the name and style of Good Fellas Car Dealers. After obtaining ZMW 250,000 from a Mr. Phiri and failing to deliver a Mercedes Benz S Class to Mr. Phiri, John and Peter decided to incorporate a company - Good Fellas Investments Limited ("**Good Fellas**") in December 2017. John and Phiri also moved the place of business from Livingstone to Lusaka. John and Peter were both directors and Shareholders in Good Fellas.

Business was booming for Good Fellas in Lusaka and as a result of its reputation, in 2019 Good Fellas managed to win a tender to supply second-hand vehicles to Greenland Investments Limited ("**Greenland**"). Good Fellas, however, failed to supply the vehicles and Greenland threatened to sue Good Fellas for specific performance or refund of the first instalment in the sum of ZMW 1,000,000. To avoid liability, John and Peter as shareholders of Good Fellas passed a special resolution changing the name of the company to JP Investments Limited. Upon failing to comply with the demand, Greenland has proceeded to sue JP Investments Limited for refund of the deposit paid. At the same, Mr. Phiri became aware that John and Peter are the proprietors of JP Investments Limited and decided to sue them for ZMW 250,000 plus interest. JP Investments Limited has resisted both claims arguing that the contract with Greenland was with Good Fellas a different company and the contract with Mr. Phiri was with Good Fellas General Dealers.

#### Required

Advise John and Peter on the claims by Greenland and Mr. Phiri.

(13 Marks)

### Question Three

Mulenga and Mumbi are both directors and shareholders of Grace Farm Limited ("**Company**") with each owning 5,000 shares in the Company. In 2018, Mulenga's son, Mutale, joined the Company. He also became a director and shareholder, owning 3,000 shares.

Mulenga and Mutale had a strong disagreement with Mumbi shortly after Mutale joined the Company. They claimed that Mumbi did not devote enough time to the business, and that he did not support their plans to expand the business. Mulenga and Mutale then removed Mumbi as a director and replaced him with Charity. Mumbi has refused to step down and claims that Mulenga and Mutale did not consult him on important matters, and that he was excluded from taking part in the management of the company. When Mumbi asked Mulenga and Mutale to purchase his shares instead, they refused.

#### Required

Advise:

- (a) Mulenga and Mutale whether they were legally entitled to remove Mumbi as a director, and appoint Charity instead.
- (b) Mumbi on any remedies he may have.

(13 Marks)



## **PART C**

### **Question Four**

With the aid of appropriate authorities discuss the various methods a private company may utilise to raise capital to finance its operations, clearly highlighting the merits and demerits of each option.

**(13 Marks)**

### **Question Five**

Discuss the case of Salomon v Salomon, clearly highlighting how its principles have been incorporated under the Companies Act No. 10 of 2017.

**(13 Marks)**

## **PART D**

### **Question Six**

With the aid of appropriate authorities, explain:

- (a) 'pre-incorporation contracts and why a company is generally not liable under such a contract. **[ 7 Marks ]**
- (b) the function of a liquidator and why it is important to ascertain the date of the commencement of winding up. **[3 Marks]**
- (c) The duty of a director to act in the best interest of the company. **[3 Marks]**

**TOTAL (13 Marks)**

### **Question Seven**

With the aid of appropriate authorities, explain:

- (a) four differences between a public company and a private company limited by shares. **[8 Marks]**
- (b) the difference between a share and a debenture. **[2.5 Marks]**
- (c) The purpose of a 'negative pledge' clause in a floating charge. **[2.5 Marks]**

**(13 marks)**

**End of Examination**



The University of Zambia

Graduate School of Business

Company Law (BAF 2211)

Supplementary Examination

Date: 9 April 2021 Time: 14:00 to 16:00 hours

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**INSTRUCTIONS:**

1. This examination is divided in **Four (4) Parts – A, B, C and D.**
  2. Answer Four (4) questions.
  3. **Part A** is compulsory. Answer one question from Part B, Part C and Part D.
  4. Time allowed: **Three (3) hours** plus **five (5) minutes** to read through the examination paper.
  5. This examination carries a total of **100 marks.**
  6. Mobile telephones, tablets, watches, clocks or any other form of computing or electronic instruments are **not allowed** into the examination room.
  7. Candidates are permitted to bring the Companies Act No. 10 of 2017 and the Corporate Insolvency Act No. 9 of 2017 into the examination room.
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## PART A - COMPULSORY

### Question One

Chimuntengo Mining Limited (the "**Company**") is a company incorporated in accordance with the provisions of the Companies Act of Zambia. The Company has a share capital of 15,000. Peter, Judas and Luke are the registered shareholders and directors of the Company. Peter, Judas and Luke hold 8,000, 2000 and 5000 shares in the Company, respectively. The Company as its core business mines copper and cobalt in Kalumbila District. The five-year strategy plan of the Company is to expand the mine and increase the output and benefit from the soaring copper prices. To achieve the shareholders, have proposed two options. The first is to sell 50% of the shares to the new partner and the second option is to obtain a loan from a commercial bank.

One of the potential shareholders, a Mr. Jones has approached you for advice in relation to the potential transaction and in particular the following issues which came to his attention during the course of his investigation in relation to the Company:

1. Judas has indicated that he prefers the second option and to stop the transaction, he will not approve or vote in favour of any resolution which will be presented to approve the first option. Mr. Jones is concerned by the stance taken by Judas's
2. Peter has assured Mr. Jones that should Judas continue to be a problem he will be removed both as a director and shareholder.
3. The articles of association of the Company can only be amended if all the three founding shareholders have consented to the proposed amendments and that Ken Phiri shall be the Chief Account of the Company until the date of his retirement. Mr. Jones wants to amend the articles and also use his long term account a Mr. Kaswili.
4. The articles of association provide that the Company shall be mining copper and cobalt only. Mr. Jones, however, intends for the company to be mining Gold as well.
5. Luke has an outstanding loan with Lima Bank and Mr. Jones is worried that should Luke fail to settle the loan, Lima Bank may come after the assets of the Company to settle any outstanding balance

Required:

With the aid of appropriate legal authorities advise Mr. Jones on the legal issues arising out of the points above and your recommendation for each point.

## **PART C**

### **Question Four**

In *Darmouth v Warword* [ ] 4 Wheat (US) 518, Marshall C.J. defined a company as

"A person, artificial, invisible, intangible and existing only in the contemplation of the law being a mere creature of the law. It possesses only those properties which the charter of its creation confers upon it, either expressly or incidental to its existence."

With the aid of appropriate authority, discuss the above quotation as to what a company is.

**(13 Marks)**

### **Question Five**

Discuss the case of *Salomon v Salomon*, clearly highlighting how its principles have been incorporated under the Companies Act No. 10 of 2017.

## **PART D**

### **Question Six**

With the aid of appropriate authorities, explain:

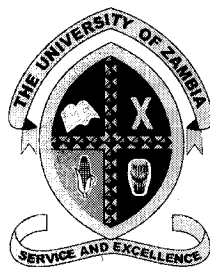
- (a) statutory protection is offered to a third party who enters into a contract with a person purporting to act on behalf of a company which is not yet formed?
- (b) Explain the difference between a company limited by shares and a company limited by guarantee.
- (c) What is meant by the 'right of pre-emption' on the allotment of shares?

### **Question Seven**

With the aid of appropriate authorities, explain:

- (a) the difference between a compulsory and voluntary liquidation, and how each is commenced;
- (b) the four circumstances in which a company may be wound up by the court;
- (c) The difference between liquidation and receivership

**End of Examination**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**BSc in Accounting & Finance**

**Tuesday, 6<sup>th</sup> of April, 2021**

### **BAF 3010: FINANCIAL REPORTING**

#### **Instructions**

Time Allowed: **3 hours**

This paper is divided into two sections:

Section A – ALL questions are compulsory and **MUST** be attempted

Section B – Attempt any **TWO** questions

Enter your student number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

All workings must be done in the answer booklet

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A

ALL questions are compulsory and MUST be attempted.

### 1. TASILA GROUP OF COMPANIES

When Tasila bought 75% of the Zulu 50 ngwe equity shares on 30 June, 2020, the value of the Tasila K1 equity shares was K4.30 and the Zulu shares had a market value of K2.20.

The terms of the acquisition were a combination of elements:

- (i) for every 3 shares acquired Tasila issued 1 new share
- (ii) a payment of K1.21 for each 2 shares acquired payable on 1 July 2021
- (iii) a payment of K0.60 per share acquired immediately

The Tasila cost of capital is 10% per annum.

Only the cash payment on 30 June 2020 has so far been recorded

On 31 December 2020, the respective Statements of Financial Position were:

#### STATEMENT OF FINANCIAL POSITION

	<b>Tasila K</b>	<b>Zulu K</b>
<b>Assets</b>		
<b>Non-Current Assets</b>		
Property, plant and equipment	260,000	200,000
Investment in Zulu	36,000	
	<b>296,000</b>	<b>200,000</b>
<b>Current Assets</b>		
Inventory	100,000	50,000
Receivables	90,000	80,000
Cash	5,000	36,000
<b>Total Assets</b>	<b>491,000</b>	<b>366,000</b>
<b>Equity and Liabilities</b>		
<b>Equity</b>		
Share Capital - K1 shares and K0.50 Zulu	100,000	40,000
Share Premium	30,000	20,000
Retained earnings	215,000	124,000
	<b>345,000</b>	<b>184,000</b>
<b>Non-Current Liabilities</b>		
3% Debentures	30,000	80,000
<b>Current Liabilities</b>	<b>116,000</b>	<b>102,000</b>
<b>Total Equity and Liabilities</b>	<b>491,000</b>	<b>366,000</b>

- (i) At the date of acquisition, some of Zulu's inventory had a fair value K12, 000 in excess of its carrying value. This entire inventory had been sold before the year-end.
- (ii) On 30 September 2020, Zulu had sold an item of property, plant and equipment to Tasila realising a profit on sale of K36, 000. Tasila was depreciating this item over its remaining useful life of 4 years. It is group policy to charge a full year's depreciation in the year of purchase, and none in the year of sale.
- (iii) On 1 December 2020, Tasila had despatched goods to Zulu at a transfer value of K26, 000. Tasila sells goods at a margin of 30%. Zulu had sold a quarter of these goods by the Statement of Financial Position date.
- (iv) The current accounts did not reconcile at the year-end because Zulu had sent a payment of K6, 500 to Tasila, but Tasila only received it on 2 January 2021. Before any necessary adjustment, the intra group balance in Zulu's records showed an amount owing to Tasila of K11, 500.
- (v) Goodwill is impaired by 25%.
- (vi) Profits for the two companies for the year to 31 December 2020 (before any adjustments necessary to be made) were respectively K70, 000 and K60, 000.
- (vii) Both entities have declared but not yet accounted for a dividend per share of 10 ngwe (Tasila) and 3 ngwe (Zulu).
- (viii) The directors valued the NCI investment on a fair value basis using the market value of the Zulu shares as a fair measure.

**Required**

**Prepare a Consolidated Statement of Financial Position for the Tasila Group as at 31 December 2020**

**(40 Marks)**

**2. The Conceptual Framework for Financial Reporting**

Mr. Kayama is a newly employed Assistant Accountant of your company and has approached you as his superior for professional guidance. Mr. Kayama has clearly explained to you that he does not fully understand the need for a Conceptual framework for financial reporting. Therefore, he is seeking help from you in this regard.

**Required;**

As you enlighten the Assistant Accountant on the need for Conceptual Framework for Financial Reporting, clearly:

- (a) Describe the general purpose of the conceptual framework and state its advantages and;
- (b) Identify the two fundamental qualitative characteristics that make financial information useful.

**(10 marks)**

## SECTION B

Attempt any TWO questions in this section

### 3. ZAMBIA SUGAR PLC

ZAMBIA SUGAR PLC is incorporated in the Republic of Zambia in accordance with the Companies Act of 2017. It is listed on the Lusaka Stock Exchange and in accordance with the requirements of the Securities Act No. 41 of 2016, Zambia Sugar Plc announced its results for the financial period ended August 2019.

#### Consolidated Statement of Profit or Loss & Other Comprehensive Income

	31-Aug-19 K'000	31-Aug-18 K'000
Revenue	2,955,958	2,362,468
Operating profit	605,741	387,601
Net finance costs	(299,492)	(242,530)
<b>Profit before taxation</b>	<b>306,249</b>	<b>145,071</b>
Taxation	(36,855)	11,323
<b>Profit for the period</b>	<b>269,394</b>	<b>156,394</b>
<b>Profit attributable to:</b>		
Shareholders of Zambia Sugar Plc	263,730	152,642
Non-controlling interest	5,664	3,752
	<b>269,394</b>	<b>156,394</b>



## Consolidated Statement of Financial Position as at 31 August 2019

	August 2019	August 2018
	K '000	K '000
<b>Assets</b>		
<b>Non-Current Assets</b>		
Property, plant and equipment	1,901,875	1,913,060
Intangible asset	67,902	67,902
	<b>1,969,777</b>	<b>1,980,962</b>
<b>Current Assets</b>		
Growing cane	336,745	302,495
Inventories	687,390	666,486
Trade and other receivables	584,477	447,024
Other current assets	42,118	13,077
Cash and bank balances	313,017	173,929
	<b>1,963,747</b>	<b>1,603,011</b>
<b>Total assets</b>	<b>3,933,524</b>	<b>3,583,973</b>
<b>Equity and liabilities</b>		
Equity attributable to shareholders	1,412,679	1,113,888
Non-controlling interest	-	40,729
	<b>1,412,679</b>	<b>1,154,617</b>
<b>Non-Current Liabilities</b>		
Deferred tax liability	138,357	121,262
Long and short-term borrowings	1,631,697	1,614,187
	<b>1,770,054</b>	<b>1,735,449</b>
<b>Current liabilities</b>		
Current liabilities	750,791	693,907
	<b>750,791</b>	<b>693,907</b>
<b>Total equity and liabilities</b>	<b>3,933,524</b>	<b>3,583,973</b>

### Other relevant information include:

Number of shares in issue ('000)	316,571	316,571
Weighted average number of shares in issue ('000)	316,571	316,571
Dividend per share (ngwee)	8	

You have been approached for investment advice by your colleague who is a non-finance manager in your organisation and has clearly told you that he is considering buying shares from Zambia Sugar Plc.

**Required:**

**You are required to assess the performance of Zambia Sugar Plc through the use of financial ratios and clearly interpret the meaning of the key ratios analysed. Your analysis should focus on the following categories of the ratios;**

- (a) Profitability**
- (b) Liquidity**
- (c) Gearing**
- (d) Investor's ratios**

**You should include in your commentary the overall performance of Zambia Sugar Plc based on the set of financial statements presented.**

**(25 marks)**

#### 4. ACCOUNTING STANDARDS

##### (a) Changes in Accounting Policy

Two of the qualitative characteristics of information contained in the IASB's *Conceptual Framework for Financial Reporting* are understand ability and comparability.

**Required:**

**Explain the meaning and purpose of the above characteristics in the context of financial reporting and discuss the role of consistency within the characteristic of comparability in relation to changes in accounting policy.**

**(6 marks)**

##### (b) Changes in Accounting Policy

You are a newly employed Accountant for the Ubuntu group of companies and you are finalising the financial statements for the year ended 31 December 2020. The following transactions and events occurred during the year under review:

- (i) The interest of K1 million earned on fixed deposits in the year 2019 was recorded as income earned during the year 2020
- (ii) As of the beginning of the year, the remaining useful life of a plant was reassessed as four (4) years rather than seven (7) years. The plant had a cost of K500, 000 and an estimated nil residual value.
- (iii) Bonuses of K12 million, compared with K2.3 million in the previous year, had been paid to employees. The financial manager explained that a new incentive scheme was adopted whereby all employees shared in increased sale.
- (iv) The internal auditor noticed in 2020 that in 2019 the entity had omitted in its books of accounts an amortization expense amounting to K30, 000 relating to an intangible asset.

**Required:**

- a. Explain to the Assistant Accountant the difference between changes in accounting policies, estimates and errors.
- b. How would each transaction and event be treated in the financial statements.

**(19 marks)**

**(Total: 25 marks)**

## 5. ASSETS AND IMPAIRMENT

- (a) Your assistant has been criticised over a piece of assessed work that he produced for his study course for giving the definition of a non-current asset as 'a physical asset of substantial cost, owned by the company, which will last longer than one year'.

**Required:**

**Explain the weaknesses in the assistant's definition of non-current assets. (5 marks)**

- (b) The objective of IAS 36 Impairment of assets is to prescribe the procedures that an entity applies to ensure that its assets are not impaired.

**Required:**

**Explain what is meant by an impairment review. Your answer should include reference to assets that may form a cash generating unit.**

**Note: you are NOT required to describe the indicators of an impairment or how impairment losses are allocated against assets. (5 marks)**

### (c) Zambia University of Education

- (i) Zambia University of Education (ZUE) acquired an item of plant at a cost of K800,000 on 1 January 2018 that is used to produce and package pharmaceutical pills. The plant had an estimated residual value of K50,000 and an estimated life of five (5) years, neither of which has changed. ZUE uses straight-line depreciation. On 31 December 2020, ZUE was informed by a major customer (who buys products produced by the plant) that it would no longer be placing orders with ZUE. Even before this information was known, ZUE had been having difficulty finding work for this plant. It now estimates that net cash inflows earned from the plant for the next three years will be:

	K000
year ended: 31 December 2021	220
31 December 2022	180
31 December 2023	170

On 31 December 2023, the plant is still expected to be sold for its estimated realisable value. ZUE has confirmed that there is no market in which to sell the plant at 31 December 2020. ZUE's cost of capital is 10% and the following values should be used:

value of K1 at:	K
end of year 1	0.91
end of year 2	0.83
end of year 3	0.75

- (i) ZUE owned a 100% subsidiary, Eduroam that is treated as a cash generating unit. On 31 December 2020, there was an industrial accident (a gas explosion) that caused damage to some of Eduroam's plant. The assets of Eduroam immediately before the accident were:

	K'000
Goodwill	1,800
Patent	1,200
Factory building	4,000
Plant	3,500
Receivables and cash	1,500
	<u>12,000</u>

As a result of the accident, the recoverable amount of Eduroam is K6.7 million. The explosion destroyed (to the point of no further use) an item of plant that had a carrying amount of K500,000. Eduroam has an open offer from a competitor of K1 million for its patent. The receivables and cash are already stated at their fair values less costs to sell (net realisable values).

**Required:**

**Calculate the carrying amounts of the assets in (i) and (ii) above at 31 December 2020 after applying any impairment losses.**

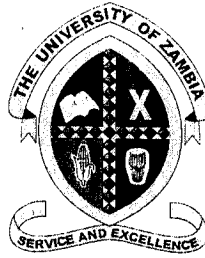
**Calculations should be to the nearest K1,000.**

**The following mark allocation is provided as guidance for this requirement:**

**(i) 5 marks**

**(ii) 8 marks**

**Two (2) professional marks will be awarded for presentation.**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**BSc Accounting and Finance Supplementary/Deferred Examination**

**BAF3010: FINANCIAL REPORTING**

**Date:** Monday 28th March 2022

**Instructions Format**

Time Allowed: **3 hours**

State Number of Questions in the Examination Paper

State clearly the number of questions to be answered

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**CHOOSE & ANSWER ANY FOUR (04) QUESTIONS**

**QUESTION ONE**

The following information relates to the statement of Financial Position as at December 31 2021

Liabilities	K	Assets	K
Share Capital	200,000	Land & Building	140,000
Retained Earnings	30,000	Plant & Machinery	350,000
General Reserves	40,000	Inventories	200,000
12% Debenture	420,000	Sundry Receivables	100,000
Sundry Payables	100,000	Trade Accounts Receivables	10,000
Trade Payables	50,000	Cash & Bank	40,000
	840,000		840,000

Net Operating Profit before tax was K280,000, assume tax is 40%, dividend declared amounts to K30,000.

**Required**

Compute and Comment on your finding on the following ratios:

- a. Current Assets
- b. Acid Test Ratios
- c. Inventory to Working Capital Ratio
- d. Debt to Equity Ratio
- e. Proprietary Ratios
- f. Capital gearing Ratio
- g. Current Assets to Fixed Assets Ratio
- h. Return on Total Resources
- i. Return on Capital Employed
- j. Return on Shareholder's Funds

**Total** **(25 marks)**

**QUESTION TWO**

- a. Compare and contrast the Principle Based Accounting Standards to Rules Based Accounting Standards **(10 marks)**
- b. Various Stakeholders who receive accounting information differ in their informational needs. Discuss Six of these, citing their areas of interest. **(15 marks)**

### QUESTION THREE

The summarized draft statements of financial position of the three companies at 31st DECEMBER 2019 are:

ITEMS	T K'000	J K'000	E K'000
<b>ASSETS</b>			
<b>Non-current Assets</b>			
PPEs	959	980	840
Investment: 630,000 shares in J	805		
Investment: 168,000 shares in E	224		
	1988	980	840
<b>Current Assets</b>			
Inventory	380	640	190
Trade Receivables	190	310	100
Bank	35	58	46
Total Assets	2593	1988	1176
<b>Equity and Liabilities</b>			
Equity Shares at K1.00 each	1120	840	560
Retained Earnings	1232	602	448
	2352	1442	1008
<b>Current Liabilities</b>			
Trade Payables	150	480	136
Taxation	91	66	32
Total Equity & Liabilities	2593	1988	1176

#### Additional notes:

- (I) T Acquired its shares in J on January 1, 2019, when J had Retained Earnings of K160,000. NCI's are to be valued at their Fair Value at the date of acquisition. The Fair Value of the NCI holding in J at January 1, 2019 was K250,000.
- (II) T acquired its shares in E on January 1, 2019 when E had Retained Earnings of K140,000.
- (III) An impairment test at the year-end shows that the Goodwill for J remains unimpaired but that the Investment in E is impaired by K2,000
- (IV) During the year J had sold inventory to T for K60,000. These had at a margin of 25%. A quarter of these inventory still remains unsold.

**Required:** Prepare the Consolidated Financial Statement of Financial Position for T as at 31<sup>st</sup> DECEMBER 2019. (25 marks)



### QUESTION FIVE

The following information relates to PanaSeed a limited liability company for the year ended December 31, 2020

Extracts from the Statement of Profit or Loss for the year ended December 31, 2020

	K'000
Finance costs	(400)
Investment Income	180
Profit before tax	15,000
Less Tax	(4,350)
Profit for the year	10,650

### Statement of Financial Position as at December 31, 2020

	2020 K'000	2019 K'000
<b>Assets</b>		
Non-current Assets	43,282	26,574
<b>Current Assets</b>		
Inventories	3,560	9,635
Receivables	6,405	4,542
Cash	2,045	1,063
	<u>12,010</u>	<u>15,240</u>
Total Assets	<u>55,292</u>	<u>41,814</u>
<b>Equity &amp; Liabilities</b>		
Capital & Liabilities		
Ordinary Share Capital	19,365	17,496
Retained Earnings	<u>16,115</u>	<u>6,465</u>
	35,480	23,961
<b>Non-current Liabilities</b>		
Loan	8,000	10,300
<b>Current Liabilities</b>		
Bank Overdraft	1,230	429
Trade Payables	7,562	4,364
Taxation	<u>3,020</u>	<u>2,760</u>
	<u>11,812</u>	<u>7,553</u>
Total Liabilities	<u>55,292</u>	<u>41,814</u>

### Additional information:

1. Depreciation expense for the year was K4,658,000
2. Assets with a carrying value of K1,974,000 were disposed of at a profit of K720,000

Prepare the statement of cash flows for the year ended December 31, 2020 for PanaSeed.

END OF EXAMINATION PAPER



**GRADUATE SCHOOL OF BUSINESS**  
**BACHELOR OF SCIENCE FINANCE AND ACCOUNTING**  
**BAF<sup>3010</sup>3220: FINANCIAL REPORTING-SESSIONAL**  
**EXAMINATION**

**JANUARY 17, 2021: 09:00-12:00 (3 hours)**

**MARKS: 100**

**INSTRUCTIONS:**

1. Check that you have the correct examination paper in front of you.
2. There are TWO SECTIONS in this paper with SECTION A being Compulsory. Choose and answer any other two questions from Section B.
3. All questions must be answered in the answer booklet PROVIDED only.
4. Write down the number of questions answered on the cover of the examination answer booklet.
5. Begin each question on a new page.
6. No other material is allowed in the Examination, except what has been permitted. Students must present the Clearance Form, Student Identity Card and the NRC in order to write.
7. Programmable calculators and phones are not permissible.
8. There shall be NO form of communication among students during examination. Any students caught doing this will be disqualified.

**DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO BY THE INVIGILATOR**

## QUESTION ONE-COMPULSORY

The consolidated statements of profit or loss for the Pipo group for the years ended 31 December 2019 and 2018 are shown below.

	2019 K'000	2018 K'000
Revenue	213,480	216,820
Cost of sales	<u>(115,620)</u>	<u>(119,510)</u>
Gross profit	97,860	97,310
Operating expenses	<u>(72,360)</u>	<u>(68,140)</u>
Profit from operations	25,500	29,170
Finance costs	<u>(17,800)</u>	<u>(16,200)</u>
Investment income	<u>2,200</u>	<u>2,450</u>
Profit before tax	9,900	15,420
Share of profit of associate	4,620	3,160
Tax expense	<u>(2,730)</u>	<u>(3,940)</u>
Profit for the year	<u>11,790</u>	<u>14,640</u>
Attributable to:		
Shareholders of Pipo Co	8,930	12,810
Non-controlling interest	2,860	1,830

The following information is relevant:

- On 31 December 2019, the Pipo group disposed of its entire 80% holding in Sombe Co, a software development company, for K300m. The Sombe Co results have been fully consolidated into the consolidated financial statements above. Sombe Co does not represent a discontinued operation.
- The proceeds from the disposal of Sombe Co have been credited to a suspense account and no gain/loss has been recorded in the financial statements above.
- Pipo Co originally acquired the shares in Sombe Co for K210m. At this date, goodwill was calculated at K70m. Goodwill has not been impaired since acquisition, and external advisers estimate that the goodwill arising in Sombe Co has a value of K110m at 31 December 2019.
- On 31 December 2019, Sombe Co had net assets with a carrying amount of K260m. In addition to this, Sombe Co's brand name was valued at K50m at acquisition in the consolidated financial statements. This is not reflected in Sombe Co's individual financial statements, and the value is assessed to be the same at 31 December 2019.
- Sombe Co is the only subsidiary in which the Pipo group owned less than 100% of the equity. The Pipo group uses the fair value method to value the non-controlling interest. At 31 December 2019, the non-controlling interest in Sombe Co is deemed to be K66m.
- Until December 2018, Pipo Co rented space in its property to a third party. This arrangement ended and, on 1 January 2019, Sombe Co's administrative department moved into Pipo Co's property. Pipo Co charged Sombe Co a reduced rent. Sombe Co's properties were sold in April 2019 at a profit of K2m which is included in administrative expenses.

- g) On 31 December 2019, the employment of the two founding directors of Sombe Co was transferred to Pipo Co. From the date of disposal, Pipo Co will go into direct competition with Sombe Co. As part of this move, the directors did not take their annual bonus of K1m each from Sombe Co. Instead, they received a similar 'joining fee' from Pipo Co, which was paid to them on 31 December 2019. These individuals have excellent relationships with the largest customers of Sombe Co, and are central to Pipo Co's future plans.
- h) Sombe Co's revenue remained consistent at K26m in both 2019 and 2018 and Sombe Co has high levels of debt. Key ratios from the Sombe Co financial statements are shown below:

	2019	2018
Gross profit margin	81%	80%
Operating profit margin	66%	41%
Interest cover	1.2 times	1.1 times

**Required:**

- a) Calculate the gain/loss on the disposal of Sombe Co which will be recorded in:
- The individual financial statements of Pipo Co; and
  - The consolidated financial statements of the Pipo group. (10 marks)
- (b) Calculate ratios equivalent to those provided in note (viii) for the Pipo group for the years ended 31 December 2019 and 2018. No adjustment is required for the gain/loss on disposal from (a). (6 marks)
- c) Comment on the performance and interest cover of the Pipo group for the years ended 31 December 2019 and 2018. Your answer should comment on:
- The overall performance of the Pipo group; How, once accounted for, the disposal of Sombe Co will impact on your analysis; and
  - The implications of the disposal of Sombe Co for the future results of the Pipo group. (24 marks)

**Total (40 marks)**

**QUESTION TWO**

(a) The IASB's Framework for the Preparation and Presentation of Financial Statements requires financial statements to be prepared on the basis that they comply with certain accounting concepts, underlying assumptions and (qualitative) characteristics. Five of these are:

- Matching/accruals
- Substance over form
- Prudence
- Comparability
- Materiality

**Required**

- a) Briefly explain the meaning of each of the above concepts/assumptions. (10 marks)

- b) For most entities, applying the appropriate concepts/assumptions in for inventories is an important element in preparing their financial statements. Illustrate with an example how each of the concepts/assumptions in (a) may be applied to accounting for inventory. (10 marks)

Total

(20 marks)

## SECTION B: CHOOSE & ANSWER ANY OTHER TWO FROM THIS SECTION

### QUESTION THREE

Alpha Co purchased 1,400,000 ordinary shares in Beta Co on January 1, 2010 for K1,450,000 when the general reserve of Beta stood at K400,000 and there were no retained earnings. The investment was classified as available for sale with any associated gains or losses recorded within other components of Equity in Alpha's individual financial statements. The investment is recorded at its fair value of K1,450,000 as at December 31, 2014.

The statements of financial position of the two companies as at 31 December 2014 are set out below.

	Alpha K'000	Beta K'000
<b>Assets</b>		
No- current		
Property, plant and equipment	8,868	1,787
Investment in Beta at cost	1,450	000
	<u>10,318</u>	<u>1,787</u>
<b>Current assets</b>		
Inventories	1,983	1,425
Receivables	1,462	1,307
Cash	25	16
	<u>3,470</u>	<u>2,748</u>
<b>Total assets</b>	<u>13,788</u>	<u>4,535</u>
<b>Equity and liabilities</b>		
Equity Share capital (50n ordinary shares)	5,500	1,000
General reserve	1,200	800
Other Components of Equity	50	
Retained earnings	435	100
Total equity	7,185	1,900
<b>Non-current liabilities</b>		
Borrowings 10%	4,000	
Borrowings 15%	-	500
Total non-current liabilities	<u>4,000</u>	<u>500</u>
<b>Current liabilities</b>		
Bank overdraft	1,176	840
Trade payables	887	1,077
Taxation	540	218
<b>Total current liabilities</b>	<u>2,603</u>	<u>2,135</u>
<b>Total liabilities</b>	<u>6,603</u>	<u>2,635</u>
<b>Total equity and liabilities</b>	<u>13,788</u>	<u>4,535</u>

At the end of the reporting period the current account of Alpha with Beta was agreed at K23,000 owed by Beta. This account is included in the appropriate receivable and trade payable balances shown above. There has been no impairment of goodwill since the date of acquisition. It is the group's policy to value the non-controlling interest at its proportionate share of the fair value of the subsidiary's net assets.

#### REQUIRED

- Prepare a consolidated statement of financial position for the Alpha Beta Group.
  - Show the alterations necessary to the group statement of financial position if the intragroup balance owed by Beta to Alpha represented an invoice for goods sold by Alpha to Beta at a mark-up of 15% on cost, and still unsold by Beta at 31 December 20X4.
  - At acquisition the Fair Value of Property, Plant and Equipment was more by K400,000 and had an estimated remaining economic useful life of 10 years.
  - Alpha had sent a cheque of K5,000 to Beta, which was not received at reporting date.
- Total** **(20 marks)**

#### QUESTION FOUR

You are the accountant of Trott Ltd, a business that buys and sells cricket equipment. The trial balance at 31 December 2017 was as follows:

	K	K
Equity Share capital (K1)		5,000
Retained earnings at 1 January 2017		5,835
Revenue		66,980
Staff cost	5,400	
Inventory at 1 January 2017	3,930	
Purchases	38,760	
Distribution costs	3,130	
Administrative expenses	3,790	
Loan interest	200	
Investment income		250
Tax	200	
Receivables and payables	9,290	2,360
Bank	3,300	175
Motor vehicles @ cost	5,000	
Buildings @ cost	12,000	
Motor vehicles @ accumulated depreciation 1 Jan, 2017		1,000
Buildings - accumulated depreciation 1 January 2017		2,400
Debentures (2020)		1,000
	<u>85,000</u>	<u>85,000</u>

#### Additional information:

- Trott has not made any additions or disposals of tangible non-current assets in the year. Its depreciation policy is as follows:
  - Motor vehicles @ 20% reducing balance Buildings @ 25 years straight line.

The depreciation expense for the year is charged to cost of sales.
- Inventory at the end of the year was valued as follows:

	Cost (K)	NRV (K)
Bats	2,500	4,000
Gloves	650	500
Pads	1,000	2,000
	<u>4,150</u>	<u>6,500</u>

3. Staff costs are to be apportioned equally across cost of sales, distribution costs and administrative expense.
4. The balance of tax on the tax account represents the over/under provision for the prior year. An estimate of K1,500 has been made for the tax payable at the year-end.

### REQUIRED

Prepare in a statement of profit or loss for the year-ended 31 December 2017 and a statement of financial position at that date. **(20 marks)**

### QUESTION FIVE

The core principle in IAS 36 is that an asset must not be carried in the financial statements at more than the highest amount to be recovered through its use or sale. If the carrying amount exceeds the recoverable amount, the asset is described as impaired. The entity must reduce the carrying amount of the asset to its recoverable amount, and recognise an impairment loss. IAS 36 also applies to groups of assets that do not generate cash flows individually (known as cash-generating units).

- a) Identify and discuss both the Internal and External indicators Impairment **(10 marks)**
- b) Peter owned 100% of the equity share capital of Sharon, a wholly-owned subsidiary. The assets at the reporting date of Sharon were as follows:

	K'000
Goodwill	2,400
Building	6,000
Plant & Equipment	5,200
Other Intangibles	2,000
Receivables and Cash	1,400
	<u>17,000</u>

On the reporting date a fire within one of Sharons buildings led to an impairment review being carried out.

The recoverable amount of the business was determined to be K9.8 million. The fire destroyed some plant and equipment with a carrying value of K1.2 million and there was no option but to scrap it.

The other intangibles consist of a license to operate Sharons plant and equipment. Following the scrapping of some of the plant and equipment a competitor offered to purchase the patent for K1.5 million. The Receivables and Cash are not stated at their Realisable value and do not require Impairment

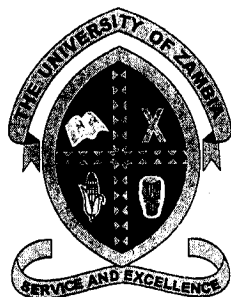
**Show how the impairment loss in Sharon is allocated amongst the assets.**

**(10 marks)**

**Total**

**(20 marks)**

**END OF EXAMINATION PAPER**



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**FEBRUARY/JULY 2019 COHORT – FULL TIME/EVENING**

**SESSIONAL EXAMINATION**

**DATE: 5<sup>TH</sup> FEBRUARY, 2021**

**BAF 3021: COST ACCOUNTING**

**EXAM TIME: 14:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: DRGS ROOM III**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Answer *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



## **SECTION A – COMPULSORY**

### **QUESTION ONE**

1. The role of the cost accountant would not normally involve which of the following:  
A. Communicating future production plans to all departments  
B. Ensuring that there is sufficient manufacturing capacity for the next period  
C. Preparing half yearly accounts for presentation to the board of directors  
D. Comparing actual performance with the budgeted targets (2 Marks)
  
2. Which of the following statements would not necessarily be used in a description of good management information? It is:  
A. Relevant to a particular decision  
B. Very cheap to produce  
C. Accurate and produced in time  
D. In a readily understandable format (2 Marks)
  
3. Which of the following best describes a fixed cost? A cost which:  
A. Represents a fixed proportion of total costs  
B. Remains at the same level up to a particular level of output  
C. Has a direct relationship with output  
D. Remains at the same level when output increases (2 Marks)
  
4. A business' telephone bill should normally be classified into which one of the following categories?  
A. Fixed costs  
B. Stepped fixed costs  
C. Semi-variable cost  
D. Variable cost (2 Marks)
  
5. If the raw material are suffering from inflation, which of the following methods of valuing stocks will give the lowest gross profit?  
A. LIFO  
B. Replacement cost  
C. FIFO  
D. Simple average (2 Marks)
  
6. Which of the following is a disadvantage of the FIFO method of stock valuation?  
A. Physical issues must follow the same order as physical receipts  
B. One issue may be split between two or more different deliveries for costing purposes  
C. Jobs started on the same day must be issued with stock from the same delivery  
D. It is necessary to analyse which deliveries particular issues have been obtained from (2 Marks)

7. Which of the following would not create an expense due to idle time of direct labour?

- A. Machine breakdown
- B. Poor work planning
- C. Reduced demand
- D. Strike action

(2 Marks)

8. For a company involved in the production of a number of different product lines, which of the following machines costs would normally form part of the prime cost of production?

- A. Operator's cost
- B. Oils
- C. Depreciation
- D. Repairs

(2 Marks)

9. If the overhead to be absorbed was the foreman's salary the most likely appropriate basis for absorption would be:

- A. Weight of material
- B. Direct labour hours
- C. Selling price
- D. Prime cost

(2 Marks)

10. Which of the following would not cause either an under or over absorption of overheads:

- A. Actual direct labour time per unit being greater than budget
- B. Actual cost of direct labour being greater than budget
- C. Actual overheads incurred being less than budget
- D. The number of units produced being greater than budget

(2 Marks)

11. A company has produced a set of cost figures for its accounting period:

	K
Direct labour	98,000
Direct expenses	5,000
Administration overheads	15,000
Indirect factory costs	20,000
Direct materials	200,000
Selling and distribution overheads	22,000

What is the production cost of units made in the period?

- A. K303,000
- B. K323,000
- C. K338,000
- D. K360,000

(5 Marks)

## QUESTION TWO

- A. A Major different between marginal and absorption costing is the valuation of finished stocks and work in progress.  
Explain the differences between these methods and the arguments used by supporters of each of these methods. (8 Marks)
- B. Explain the meaning of semi-variable cost and illustrate your answer by using a graph. (7 Marks)
- C. Using the data below, find the variable cost per hour and fixed cost per month.

	<i>Hours of activity</i>	<i>Total costs</i> K
January	4,400	13,824
February	4,700	14,562
March	5,300	16,038
April	5,100	15,546
May	4,900	15,054
June	4,500	14,070

(5 Marks)

## SECTION B

### QUESTION THREE

A company manufactures and sells two products A and B. The following is available.

		<i>A</i>	<i>B</i>
Sales prices (each)		K15	K20
Labour (unit)		K2 (1 hour)	K4 (2 hours)
Variable production overheads		K3	K6
Material		K4	K5
Production quantities:	November	700	800
	December	350	500
Quantities sold:	November	600	700
	December	400	400
Fixed overheads	November	K4,600	
	December	K2,700	

### Required

You are required to prepare statements for November and December showing profit and closing stock valuations using the following methods:

- A. Marginal costing (12 Marks)
- B. Absorption costing (13 Marks)

#### QUESTION FOUR

A process for making lead shot involves melting ingots of lead, then pouring the melt from a height, into a cooling bath. There is a loss of material due to spillage of the melt and splatter by the bath. This material is sold for scrap. In a normal production run 1kg of lead costing K40 would produce 0.95kg of shot with the scrap being sold for K20 per kg.

In a week 100kg of lead was processed and 92kg of lead shot produced. Labour costs of K550 were incurred and overhead costs are normally allocated at a rate of 4 times labour costs.

##### Required

- A. Calculate the cost per unit for lead shot (8 Marks)
- B. Write up the process account (10 Marks)
- C. Write up the loss account (7 Marks)

#### QUESTION FIVE

An industry concern manufactures three products known as P, Q and R. Each product is started in the machining area and completed in the Finishing Shop. The direct costs associated with each product forecast for the next trading period are:

	P K	Q K	R K
Materials	18.50	15.00	22.50
Wages:			
Machining area at K5 per hour	10.00	5.00	10.00
Finishing Shop at K4 per hour	6.00	4.00	8.00
	34.50	24.00	40.50

There are machines in both departments and machine hours required to complete one of each product are:

Machine area	4	1.5	3
Finishing shop	0.5	0.5	1
Budget output in units	6,000	8,000	2,000

Fixed overheads are:

Machine area	K100,800
Finishing shop	K94,500

##### Required:

- A. An overhead absorption rate for fixed overheads using:
  - (i) A labour hour rate for each department; (5 Marks)
  - (ii) A machine hour rate for each department. (5 Marks)
- B. Using results from (A) above, calculate the total cost of each product using:
  - (i) The labour hour rate; (5 Marks)

(ii) The machine hour rate.

(5 Marks)

- C. Your comments to the Factory Manager who has suggested that one overhead rate for both departments would simplify matters. (5 Marks)

### QUESTION SIX

Z Ltd had the following transactions in one of its raw materials during April 2017.

			<i>Units</i>	<i>Purchase Price</i>	<i>Market Price</i>
Opening			40 units	@K10 each	@K10 each
April	4	Bought	140 units	@K11 each	@K12 each
	10	Used	90 units		
	12	Bought	60 units	@K12 each	@K13 each
	13	Used	100 units		
	16	Bought	200 units	@K10 each	@K15 each
	21	Used	70 units		
	23	Used	80 units		
	26	Bought	50 units	@K12 each	@K14 each
	29	Used	60 units		

### Required

Write up stores ledger account using the following methods of stock valuation below, and you should clearly indicate:

- (i) the total purchase costs, cost of sales, value of closing stock and
- (ii) where there are differences between purchase cost and the aggregate of cost of production and value of the closing stock, show the reconciliation.

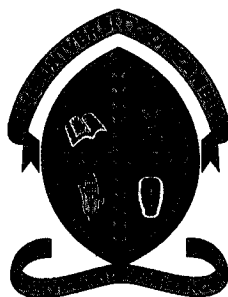
A. Replacement Method

(13 Marks)

B. Weighted Average

(12 Marks)

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**FEBRUARY/JULY 2020 COHORT – FULL TIME/EVENING**

**SESSIONAL EXAMINATION**

**DATE: 17<sup>TH</sup> JANUARY, 2022**

*SEM 1032*

**~~BAF 3021~~: COST ACCOUNTING**

*BAF 3021*

**EXAM TIME: 14:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: SPORTS HALL**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Answer *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

---

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A – COMPULSORY**

### **QUESTION ONE**

1. If the raw material are suffering from inflation, which of the following methods of valuing stocks will give the lowest gross profit?  
A. LIFO                      C. Replacement cost  
B. FIFO                      D. Simple average                      (2 Marks)
2. Which of the following is a disadvantage of the FIFO method of stock valuation?  
A. Physical issues must follow the same order as physical receipts  
B. One issue may be split between two or more different deliveries for costing purposes  
C. Jobs started on the same day must be issued with stock from the same delivery  
D. It is necessary to analyse which deliveries particular issues have been obtained from                      (2 Marks)
3. Which of the following would not create an expense due to idle time of direct labour?  
A. Machine breakdown                      C. Poor work planning  
B. Reduced demand                      D. Strike action                      (2 Marks)
4. If the overhead to be absorbed was the foreman's salary the most likely appropriate basis for absorption would be:  
A. Weight of material                      C. Direct labour hours  
B. Selling price                      D. Prime cost                      (2 Marks)
5. Which of the following would not cause either an under or over absorption of overheads:  
A. Actual direct labour time per unit being greater than budget  
B. Actual cost of direct labour being greater than budget  
C. Actual overheads incurred being less than budget  
D. The number of units produced being greater than budget                      (2 Marks)
6. Cost centres are:  
A. Units of output or service for which costs are ascertained.  
B. Functions or locations for which costs are ascertained.  
C. A segment of the organisation for which budgets are prepared.  
D. Amounts of expenditure attributable to various activities.                      (2 Marks)
7. Fixed costs are conventionally deemed to be:  
A. Constant per unit of output as production changes.  
B. Constant in total when production volume changes.  
C. Outside the control of management as production changes.

D. Those unaffected by inflation.

(2 Marks)

8. The following data relate to two activity levels of an out-patient department in a hospital:

Number of consultations by patients	4,500	5,750
Overheads	K269,750	K289,125

Fixed overheads are not affected by the number of consultations per period. The variable cost per consultation:

A. Is approximately K15.50

C. Is approximately K44.44

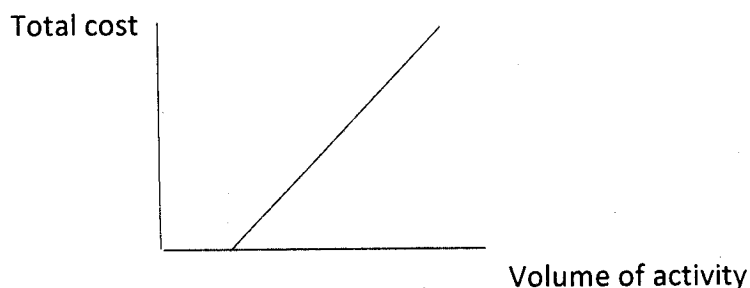
B. Is approximately K59.94

D. None of the options given

(2 Marks)

9. The following is a graph of cost against volume of output:

(2 Marks)



To which of the following costs does the graph correspond?

- A. Electricity bills made up of a standing charge and a variable charge.
- B. Bonus payments to employees when production reaches a certain level.
- C. Sales commission payable per unit up to a maximum amount of commission.
- D. Bulk discounts on purchases, the discount being given on all units purchased.

10. A company has produced a set of cost figures for its accounting period:

	K
Direct labour	98,000
Direct expenses	5,000
Administration overheads	15,000
Indirect factory costs	20,000
Direct materials	200,000
Selling and distribution overheads	22,000

What is the production cost of units made in the period?

- A. K303,000
- B. K323,000
- C. K338,000
- D. K360,000

(3 Marks)



11. A method of dealing with overheads involves spreading common costs over cost centres on the basis of benefit received. This is known as:

- A. Overhead absorption                      C. Overhead apportionment.  
B. Overhead allocation.                      D. Overhead analysis.

(2 Marks)

12. An overhead absorption rate is used to:

- A. Share out common costs over benefiting cost centres.  
B. Find the total overheads for a cost centre.  
C. Charge overheads to products.  
D. Control overheads.

(2 Marks)

## QUESTION TWO

Z Ltd had the following transactions in one of its raw materials during December 2021.

			<i>Units</i>	<i>Purchase Price</i>	<i>Market Price</i>
Opening			40 units	@K10 each	@K10 each
April	4	Bought	140 units	@K11 each	@K12 each
	10	Used	90 units		@K13 each
	12	Bought	60 units	@K12 each	@K13 each
	13	Used	100 units		@K14 each
	16	Bought	200 units	@K10 each	@K10 each
	21	Used	70 units		@K15 each
	23	Used	80 units		@K14 each
	26	Bought	50 units	@K12 each	@K14 each
	29	Used	60 units		@K16 each

### Required

Write up stores ledger account using the following methods of stock valuation below, and you should clearly indicate:

- (i) the total purchase costs, cost of sales, value of closing stock and  
(ii) where there are differences between purchase cost and the aggregate of cost of production and value of the closing stock, show the reconciliation.

- A. Replacement Method  
B. Weighted Average

(13 Marks)  
(12 Marks)

## **SECTION B – ATTEMPT ANY TWO QUESTIONS**

### **QUESTION THREE**

Luansobe Plc is engaged mainly in retailing fashion and leisure wear, camping equipment and protective clothing. The company's head office and warehouse are located in Lusaka province and the 50 shops it operates are divided into three provincial divisions as follows.

<i>Division</i>	<i>No. of shops</i>
Copperbelt	16
West	13
South	21

Servicing of the shops is undertaken from head office for the following.

- (a) Personnel and staff training
- (b) Window display, sales promotion and advertising'
- (c) Warehousing and distribution – no goods are delivered direct to the shops from the manufacturers.

Costs for the three service functions are budgeted for the next month, as shown below, and methods of apportioning these costs to the three retailing divisions must be determined.

	<i>Personel and Staff training</i>	<i>Window display, sales promotion and advertising</i>	<i>Warehousing and distribution</i>
	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
Wages	40	65	140
Transport	9	30	115
Other costs	8	135	30

Other information available from the budget for the next month is as follows.

	<i>Copperbelt</i>	<i>West</i>	<i>South</i>	<i>Total</i>
	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
Sales	2,760	2,320	4,120	9,200
Cost of goods sold	1,154	978	1,668	3,800
Branch wages	422	358	645	1,425
Divisional administration	45	45	53	143

### **Required**

- A. Prepare a statement showing how you apportion the cost of the service functions to each of the retailing divisions. **(16 Marks)**
- B. Briefly explain why you have selected the bases of apportionment that you have used in 'A' above and state any limitations. **(9 Marks)**

#### QUESTION FOUR

The Z-Tool Company manufactures three products, A, B and C, the cost of each being:

	Product A	Product B	Product C
Direct materials	K14.40	K25.60	K36.00
Direct labour:			
Material @ K1.20 per hour	2 hours	1.5 hours	2 hours
Assembling @ K0.80 per hour	2 hours	2.5 hours	1 hours
Variable overhead	K1.60	K0.60	K0.80

Fixed overhead for the following year is estimated at K120,000 and planned production is:

Product A	10,000 units
Product B	20,000 units
Product C	40,000 units

The directors are considering alternative methods for absorbing fixed overhead into product costs.

#### Required

Calculate the rates to be applied for the following alternatives:

- A. Percentage of total variable cost (13 Marks)
- B. Direct labour hour (12 Marks)

#### QUESTION FIVE

A process for making lead shot involves melting ingots of lead, then pouring the melt from a height, into a cooling bath. There is a loss of material due to spillage of the melt and splatter by the bath. This material is sold for scrap. In a normal production run 1kg of lead costing K40 would produce 0.95kg of shot with the scrap being sold for K20 per kg.

In a week 100kg of lead was processed and 92kg of lead shot produced. Labour costs of K550 were incurred and overhead costs are normally allocated at a rate of 4 times labour costs.

#### Required

- A. Calculate the cost per unit for lead shot (8 Marks)
- B. Write up the process account (10 Marks)
- C. Write up the loss account (7 Marks)

#### QUESTION SIX

Peter Likando has worked for some years as a sales representative, but has recently been made redundant. He intends to start up in business on his own account, using K15,000 which he currently has invested with a building society. Peter maintains a bank account showing a

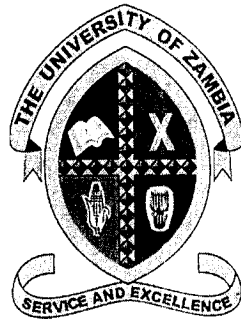
small credit balance, and he plans to approach his bank for the necessary additional finance. Peter provides the following additional information.

- (a) Arrangements have been made to purchase fixed assets costing K8,000. These will be paid for at the end of September 2019 and are expected to have a five-year life, at the end of which they will possess a nil residual value.
- (b) Stocks costing K5,000 will be acquired on 28<sup>th</sup> September 2019 and subsequent monthly purchases will be at a level sufficient to replace forecast sales for the month.
- (c) Forecast monthly sales are K3,000 for October 2019, K6,000 for November 2019 and December 2019, and K10,500 from January 2020 onwards.
- (d) Selling price is fixed at the cost of stock plus 50%.
- (e) Two months' credit will be allowed to customers but only one month's credit will be received from suppliers of stock.
- (f) Running expenses, including rent but excluding depreciation of fixed assets, are estimated at K1,600 per month.
- (g) Peter intends to make monthly cash drawings of K1,000.

**Required:**

- A. Prepare Peter Likando's budgeted profit and loss account for six months from 1 October 2019 to 31 March 2020. (10 Marks)
- B. Prepare Peter Likando's budgeted balance sheet as at 31 March 2020. (15 Marks)

***END OF EXAMINATION***



**GRADUATE SCHOOL OF BUSINESS**  
**BACHELOR OF SCIENCE FINANCE AND ACCOUNTING**  
**BAF3220: FINANCIAL REPORTING-SUPPLEMENTARY/DEFERRED**  
**EXAMINATION**

**DURATION: 3 HOURS Plus 5 Minutes reading time**

**MARKS: 100**

**INSTRUCTIONS:**

1. Check that you have the correct examination paper in front of you.
2. There are SIX Questions in this paper. You are required to Answer FIVE.
3. All questions must be answered in the answer booklet PROVIDED only.
4. Write down the number of questions answered on the cover of the examination answer booklet.
5. Begin each question on a new page.
6. Credit will be given for orderly, logical, presentation of materials.
7. No other material is allowed in the Examination, except what has been permitted. Students must present the Clearance Form, Student Identity Card and the NRC in order to write.
8. Programmable calculators are not permissible.
9. There shall be NO form of communication among students during examination. Any students caught doing this will be disqualified.

**DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO**

## QUESTION 1

The core principle in IAS 36 is that an asset must not be carried in the financial statements at more than the highest amount to be recovered through its use or sale. If the carrying amount exceeds the recoverable amount, the asset is described as impaired. The entity must reduce the carrying amount of the asset to its recoverable amount, and recognise an impairment loss. IAS 36 also applies to groups of assets that do not generate cash flows individually (known as cash-generating units).

- a) Identify and discuss both the Internal and External indicators Impairment (10 marks)
- b) Peter owned 100% of the equity share capital of Sharon, a wholly-owned subsidiary. The assets at the reporting date of Sharon were as follows:

	K'000
Goodwill	2,400
Building	6,000
Plant & Equipment	5,200
Other Intangibles	2,000
Receivables and Cash	1,400
	17,000

On the reporting date a fire within one of Sharons buildings led to an impairment review being carried out.

The recoverable amount of the business was determined to be K9.8 million. The fire destroyed some plant and equipment with a carrying value of K1.2 million and there was no option but to scrap it.

The other intangibles consist of a license to operate Sharons plant and equipment. Following the scrapping of some of the plant and equipment a competitor offered to purchase the patent for K1.5 million. The Receivables and Cash are not stated at their Realisable value and do not require Impairment

Show how the impairment loss in Sharon is allocated amongst the assets.

(10 marks)

Total

(25 marks)

## QUESTION 2

### QUESTION ONE

(a) The IASB's Framework for the Preparation and Presentation of Financial Statements requires financial statements to be prepared on the basis that they comply with certain accounting concepts, underlying assumptions and (qualitative) characteristics. Five of these are:

- Matching/accruals
- Substance over form

- Prudence
- Comparability
- Materiality

### Required

(a) Briefly explain the meaning of each of the above concepts/assumptions. (5 marks)

(b) For most entities, applying the appropriate concepts/assumptions in for inventories is an important element in preparing their financial statements.

### Required

Illustrate with an example how each of the concepts/assumptions in (a) may be applied to accounting for inventory. (15 marks)

Total (20 marks)

### QUESTION THREE

The summarized draft statements of financial position of the three companies at 31st DECEMBER 2019 are:

ITEMS	T K'000	J K'000	E K'000
<b>ASSETS</b>			
<b>Non-current Assets</b>			
PPEs	959	980	840
Investment: 630,000 shares in J	805		
Investment: 168,000 shares in E	224		
	1988	980	840
<b>Current Assets</b>			
Inventory	380	640	190
Trade Receivables	190	310	100
Bank	35	58	46
Total Assets	2593	1988	1176
<b>Equity and Liabilities</b>			
Equity Shares at K1.00 each	1120	840	560
Retained Earnings	1232	602	448
	2352	1442	1008
<b>Current Liabilities</b>			
Trade Payables	150	480	136
Taxation	91	66	32
Total Equity & Liabilities	2593	1988	1176

### Additional notes:

- (I) T Acquired its shares in J on January 1, 2019, when J had Retained Earnings of K160,000. NCI's are to be valued at their Fair Value at the date of acquisition. The Fair Value of the NCI holding in J at January 1, 2019 was K250,000.

- (II) T acquired its shares in E on January 1, 2019 when E had Retained Earnings of K140,000.
- (III) An impairment test at the year-end shows that the Goodwill for J remains unimpaired but that the Investment in E is impaired by K2,000.
- (IV) During the year J had sold inventory to T for K60,000. These had at a margin of 25%. A quarter of these inventory still remains unsold.

**Required:** Prepare the Consolidated Financial Statement of Financial Position for T as at 31<sup>st</sup> DECEMBER 2019. (25 marks)

#### QUESTION FOUR

Extract from Musune's nominal Ledger for the year ended December 31, 2020 are as follows:

	K'000
Profit for the year	421
Dividend	(98)
	<u>323</u>
During the year the following important events took place	
(i) Properties were revalued at K105,000	
(ii) 200,000 Equity shares of K1 were issued during the year at premium K0.25	
	K
Share Capital	400,000
Share Premium	50,000
Revaluation Surplus	165,000
Retained Earnings	<u>310,000</u>
	<u>925,000</u>

**Required:**

Prepare the Statement of Changes in Equity for the year ended December 31, 2020 (15 marks)



## QUESTION FIVE

You are the accountant of Trott Ltd, a business that buys and sells cricket equipment.

The trial balance at 31 December 2017 was as follows:

	K	K
Equity Share capital (K1)		5,000
Retained earnings at 1 January 2017		5,835
Revenue		66,980
Staff cost	5,400	
Inventory at 1 January 2017	3,930	
Purchases	38,760	
Distribution costs	3,130	
Administrative expenses	3,790	
Loan interest	200	
Investment income		250
Tax	200	
Receivables and payables	9,290	2,360
Bank	3,125	
Motor vehicles @ cost	5,000	
Buildings @ cost	12,000	
Motor vehicles @ accumulated depreciation 1 January		1,000
Buildings - accumulated depreciation 1 January 2017		2,400
Debentures (2020)		1,000
	84,825	84,825

### Additional information:

1. Trott has not made any additions or disposals of tangible non-current assets in the year. Its depreciation policy is as follows:

- Motor vehicles @ 20% reducing balance Buildings @ 25 years straight line

The depreciation expense for the year is charged to cost of sales.

2. Inventory at the end of the year was valued as follows:

	Cost (K)	NRV (K)
Bats	2,500	4,000
Gloves	650	500
Pads	<u>1,000</u>	<u>2,000</u>
Total	<u>4,150</u>	<u>6,500</u>

3. Staff costs are to be apportioned equally across cost of sales, distribution costs and administrative expense.

4. The balance of tax on the tax account represents the over/under provision for the prior year. An estimate of K1,500 has been made for the tax payable at the year-end.

**Prepare in a statement of profit or loss for the year-ended 31 December 2017 and a statement of financial position at that date.**

### QUESTION SIX

You have been hired as an analyst for the GSB Centre of Excellence and your team is working on an independent assessment of GSB Hotels Limited, a subsidiary of the GSB Centre of excellence. Your assistant has provided you with the following data for GSB Hotels and their industry.

Over the last six years, it has experienced declining profitability and is wondering if this is a problem for the entire industry to which it belongs.

The financial statements of Graduate Centre of Excellence for the year ended 31 December 2020 are:

#### Statement of profit or loss

	K'000	K'000
Revenue		224,000
Opening inventory	33,200	
Purchases	175,600	
Closing inventory	<u>(40,800)</u>	
Cost of sales		<u>(168,000)</u>
Gross profit		<u>56,000</u>
Operating expenses		<u>(39,200)</u>
Finance costs		<u>(3,200)</u>
Profit before tax		<u>13,600</u>
Income tax		<u>(4,000)</u>
Profit for the year		<u>9,600</u>

## Statement of financial position

	K'000	K'000
Non-Current assets		
Property, plant and equipment		122,400
Current assets		
Inventory	40,800	
Bank	<u>4,000</u>	
		<u>44,800</u>
Total assets		<u>167,200</u>
Equity and liabilities		
Equity		
Equity shares of K1 each		60,000
Revaluation surplus		12,000
Retained earnings		<u>34,400</u>
Shareholders funds		106,400
Non-current liabilities		
10% loan notes		32,000
Current Liabilities		
Trade payables	21,600	
Current tax payable	<u>7,200</u>	
		<u>28,800</u>
Total equity and Liabilities		<u>167,200</u>

Required:

(a) Calculate for GSB Hotels, the following eight ratios; (12 marks)

- Asset turnover
- Gross profit margin
- Operating profit margin
- Average inventory turnover
- Current ratio
- Trade payables payment period
- Gearing
- Return on Capital Employed (ROCE)

(b) Comment of the performance of the business with specific limits to the ratios worked out (8 marks)

Total (20 marks)



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**FEBRUARY/JULY 2020 COHORT – FULL TIME/EVENING**

**DEFERRED/SUPPLEMENTARY EXAMINATION**

**DATE: 28<sup>TH</sup> MARCH, 2022**

~~SOB 2037~~

~~BAF 3021~~: COST ACCOUNTING BAF 3021

~~SEM 1032~~

**EXAM TIME: 14:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: GSB CLASS ROOM**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Answer *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A – COMPULSORY

### QUESTION ONE

The following data have been extracted from the budgets and standard costs of ABC Limited, a company which manufactures and sells a single product.

	Per Unit
	K
Selling price	45.00
Direct materials cost	10.00
Direct wages cost	4.00
Variable overhead cost	2.50

Fixed production overhead costs are budgeted at K400,000 per annum. Normal production levels are thought to be 320,000 units per annum.

Budgeted selling and distribution costs are as follows.

Variable	K1.50 per unit sold
Fixed	K80,000 per annum

Budgeted administration costs are K120,000 per annum.

The following patterns of sales and production are expected during the first six months of 2021.

	January – March	April – June
Sales (units)	60,000	90,000
Production (units)	70,000	100,000

There will be no stock on 1 January 2021.

#### **Required**

Prepare profit statements for each of the two quarters, in a columnar format, using:

- A. Marginal costing (12 Marks)
- B. Absorption costing (13 Marks)

### QUESTION TWO

A process for making lead shot involves melting ingots of lead, then pouring the melt from a height, into a cooling bath. There is a loss of material due to spillage of the melt and splatter by the bath. This material is sold for scrap. In a normal production run 1kg of lead costing K40 would produce 0.95kg of shot with the scrap being sold for K20 per kg.

In a week 100kg of lead was processed and 92kg of lead shot produced. Labour costs of K550 were incurred and overhead costs are normally allocated at a rate of 4 times labour costs.

### Required

- A. Calculate the cost per unit for lead shot (8 Marks)
- B. Write up the process account (10 Marks)
- C. Write up the loss account (7 Marks)

## SECTION B - ATTEMPT ANY TWO

### QUESTION THREE

Z Ltd had the following transactions in one of its raw materials during April 2017.

			Units	Purchase Price	Market Price
Opening			40 units	@K10 each	@K10 each
April	4	Bought	140 units	@K11 each	@K12 each
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	21	Used	70 units		@K15 each
	23	Used	80 units		@K14 each
	26	Bought	50 units	@K12 each	@K14 each
	29	Used	60 units		@K16 each

### Required

Write up stores ledger account using the following methods of stock valuation below, and you should clearly indicate:

- (i) the total purchase costs, cost of sales, value of closing stock and
- (ii) where there are differences between purchase cost and the aggregate of cost of production and value of the closing stock, show the reconciliation.

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Peter Likando has worked for some years as a sales representative, but has recently been made redundant. He intends to start up in business on his own account, using K15,000 which he currently has invested with a building society. Peter maintains a bank account showing a

small credit balance, and he plans to approach his bank for the necessary additional finance. Peter provides the following additional information.

- (a) Arrangements have been made to purchase fixed assets costing K8,000. These will be paid for at the end of September 2019 and are expected to have a five-year life, at the end of which they will possess a nil residual value.
- (b) Stocks costing K5,000 will be acquired on 28<sup>th</sup> September 2019 and subsequent monthly purchases will be at a level sufficient to replace forecast sales for the month.
- (c) Forecast monthly sales are K3,000 for October 2019, K6,000 for November 2019 and December 2019, and K10,500 from January 2020 onwards.
- (d) Selling price is fixed at the cost of stock plus 50%.
- (e) Two months' credit will be allowed to customers but only one month's credit will be received from suppliers of stock.
- (f) Running expenses, including rent but excluding depreciation of fixed assets, are estimated at K1,600 per month.
- (g) Peter intends to make monthly cash drawings of K1,000.

**Required:**

- A. Prepare Peter Likando's budgeted profit and loss account for six months from 1 October 2019 to 31 March 2020. (10 Marks)
- B. Prepare Peter Likando's budgeted budgeted balance sheet as at 31 March 2020. (15 Marks)

**QUESTION FIVE**

An industry concern manufactures three products known as P, Q and R. Each product is started in the machining area and completed in the Finishing Shop. The direct costs associated with each product forecast for the next trading period are:

	P K	Q K	R K
Materials	18.50	15.00	22 50
Wages: Machining area at K5 per hour	10.00	5.00	10 00
Finishing Shop at K4 per hour	6.00	4.00	8.00
	34.50	24.00	40 50

There are machines in both departments and machine hours required to complete one of each product are:

Machine area	4	1.5	3
Finishing shop	0.5	0.5	1
Budget output in units	6,000	8,000	2,000

Fixed overheads are:

Machine area	K100,800
Finishing shop	K94,500

**Required:**

- A. An overhead absorption rate for fixed overheads using:
- (i) A labour hour rate for each department; (5 Marks)
  - (ii) A machine hour rate for each department. (5 Marks)
- B. Using results from (A) above, calculate the total cost of each product using:
- (i) The labour hour rate; (5 Marks)
  - (ii) The machine hour rate. (5 Marks)
- C. Your comments to the Factory Manager who has suggested that one overhead rate for both departments would simplify matters. (5 Marks)

**QUESTION SIX**

X Ltd uses a standard absorption cost accounting system. The following details have been extracted from a standard cost card for one of its products.

	K
Direct materials	5.00
Direct labour	7.40
Variable overhead	2.30
Fixed overhead	<u>3.80</u>
	<u>18.20</u>

The fixed overhead cost per unit is based on an estimated production of 1000 units per month. During October 2020 the actual number of units produced was 900 and the following variances arose.

	K
Direct materials	180 favourable
Direct labour	280 adverse
Variable overhead	240 adverse
Fixed overhead	200 adverse

**Required**

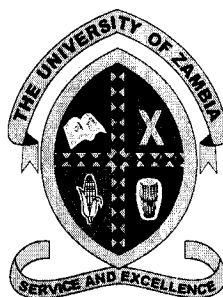
Calculate the actual cost of:

- A. Direct materials (6 Marks)
- B. Direct labour (6 Marks)
- C. Variable overhead (6 Marks)
- D. Fixed overhead (7 Marks)

**END OF EXAMINATION**



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**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**FEBRUARY/JULY 2019 COHORT – FULL TIME/EVENING**

**DEFERRED/SUPPLEMENTARY EXAMINATION**

**DATE: 12<sup>TH</sup> APRIL, 2021**

*SEM 1032*

**~~BAF 3021~~: COST ACCOUNTING**

*BAF 3021*

**EXAM TIME: 14:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: SPORTS HALL**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Answer *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A – COMPULSORY**

### **QUESTION ONE**

1. The role of the cost accountant would not normally involve which of the following:
  - A. Communicating future production plans to all departments
  - B. Ensuring that there is sufficient manufacturing capacity for the next period
  - C. Preparing half yearly accounts for presentation to the board of directors
  - D. Comparing actual performance with the budgeted targets

**(2 Marks)**
  
2. Which of the following statements would not necessarily be used in a description of good management information? It is:
  - A. Relevant to a particular decision
  - B. Very cheap to produce
  - C. Accurate and produced in time
  - D. In a readily understandable format

**(2 Marks)**
  
3. Which of the following best describes a fixed cost? A cost which:
  - A. Represents a fixed proportion of total costs
  - B. Remains at the same level up to a particular level of output
  - C. Has a direct relationship with output
  - D. Remains at the same level when output increases

**(2 Marks)**
  
4. A business' telephone bill should normally be classified into which one of the following categories?
  - A. Fixed costs
  - B. Stepped fixed costs
  - C. Semi-variable cost
  - D. Variable cost

**(2 Marks)**
  
5. If the raw material are suffering from inflation, which of the following methods of valuing stocks will give the lowest gross profit?
  - A. LIFO
  - B. Replacement cost
  - C. FIFO
  - D. Simple average

**(2 Marks)**
  
6. Which of the following is a disadvantage of the FIFO method of stock valuation?
  - A. Physical issues must follow the same order as physical receipts
  - B. One issue may be split between two or more different deliveries for costing purposes
  - C. Jobs started on the same day must be issued with stock from the same delivery
  - D. It is necessary to analyse which deliveries particular issues have been obtained from

**(2 Marks)**

7. Which of the following would not create an expense due to idle time of direct labour?
- A. Machine breakdown
  - B. Poor work planning
  - C. Reduced demand
  - D. Strike action
- (2 Marks)

8. For a company involved in the production of a number of different product lines, which of the following machines costs would normally form part of the prime cost of production?
- A. Operator's cost
  - B. Oils
  - C. Depreciation
  - D. Repairs
- (2 Marks)

9. If the overhead to be absorbed was the foreman's salary the most likely appropriate basis for absorption would be:
- A. Weight of material
  - B. Direct labour hours
  - C. Selling price
  - D. Prime cost
- (2 Marks)

10. Which of the following would not cause either an under or over absorption of overheads:
- A. Actual direct labour time per unit being greater than budget
  - B. Actual cost of direct labour being greater than budget
  - C. Actual overheads incurred being less than budget
  - D. The number of units produced being greater than budget
- (2 Marks)

11. A company has produced a set of cost figures for its accounting period:

	K
Direct labour	98,000
Direct expenses	5,000
Administration overheads	15,000
Indirect factory costs	20,000
Direct materials	200,000
Selling and distribution overheads	22,000

What is the production cost of units made in the period?

- A. K303,000
  - B. K323,000
  - C. K338,000
  - D. K360,000
- (5 Marks)

## QUESTION TWO

- A. A Major different between marginal and absorption costing is the valuation of finished stocks and work in progress.  
Explain the differences between these methods and the arguments used by supporters of each of these methods. (8 Marks)
- B. Explain the meaning of semi-variable cost and illustrate your answer by using a graph. (7 Marks)
- C. Using the data below, find the variable cost per hour and fixed cost per month.

	<i>Hours of activity</i>	<i>Total costs</i> K
January	4,400	13,824
February	4,700	14,562
March	5,300	16,038
April	5,100	15,546
May	4,900	15,054
June	4,500	14,070

(5 Marks)

## SECTION B

### QUESTION THREE

A company manufactures and sells two products A and B. The following is available.

		<i>A</i>	<i>B</i>
Sales prices (each)		K15	K20
Labour (unit)		K2 (1 hour)	K4 (2 hours)
Variable production overheads		K3	K6
Material		K4	K5
Production quantities:	November	700	800
	December	350	500
Quantities sold:	November	600	700
	December	400	400
Fixed overheads	November	K4,600	
	December	K2,700	

### Required

You are required to prepare statements for November and December showing profit and closing stock valuations using the following methods:

- A. Marginal costing (12 Marks)
- B. Absorption costing (13 Marks)

#### QUESTION FOUR

A process for making lead shot involves melting ingots of lead, then pouring the melt from a height, into a cooling bath. There is a loss of material due to spillage of the melt and splatter by the bath. This material is sold for scrap. In a normal production run 1kg of lead costing K40 would produce 0.95kg of shot with the scrap being sold for K20 per kg.

In a week 100kg of lead was processed and 92kg of lead shot produced. Labour costs of K550 were incurred and overhead costs are normally allocated at a rate of 4 times labour costs.

##### Required

- A. Calculate the cost per unit for lead shot (8 Marks)
- B. Write up the process account (10 Marks)
- C. Write up the loss account (7 Marks)

#### QUESTION FIVE

An industry concern manufactures three products known as P, Q and R. Each product is started in the machining area and completed in the Finishing Shop. The direct costs associated with each product forecast for the next trading period are:

	P K	Q K	R K
Materials	18.50	15.00	22.50
Wages:			
Machining area at K5 per hour	10.00	5.00	10.00
Finishing Shop at K4 per hour	6.00	4.00	8.00
	34.50	24.00	40.50

There are machines in both departments and machine hours required to complete one of each product are:

Machine area	4	1.5	3
Finishing shop	0.5	0.5	1
Budget output in units	6,000	8,000	2,000

Fixed overheads are:

Machine area	K100,800
Finishing shop	K94,500

##### Required:

- A. An overhead absorption rate for fixed overheads using:
  - (i) A labour hour rate for each department; (5 Marks)
  - (ii) A machine hour rate for each department. (5 Marks)
- B. Using results from (A) above, calculate the total cost of each product using:
  - (i) The labour hour rate; (5 Marks)

(ii) The machine hour rate.

(5 Marks)

- C. Your comments to the Factory Manager who has suggested that one overhead rate for both departments would simplify matters. (5 Marks)

### QUESTION SIX

Z Ltd had the following transactions in one of its raw materials during April 2017.

			<i>Units</i>	<i>Purchase Price</i>	<i>Market Price</i>
Opening			40 units	@K10 each	@K10 each
April	4	Bought	140 units	@K11 each	@K12 each
	10	Used	90 units		
	12	Bought	60 units	@K12 each	@K13 each
	13	Used	100 units		
	16	Bought	200 units	@K10 each	@K15 each
	21	Used	70 units		
	23	Used	80 units		
	26	Bought	50 units	@K12 each	@K14 each
	29	Used	60 units		

### Required

Write up stores ledger account using the following methods of stock valuation below, and you should clearly indicate:

- (i) the total purchase costs, cost of sales, value of closing stock and  
(ii) where there are differences between purchase cost and the aggregate of cost of production and value of the closing stock, show the reconciliation.

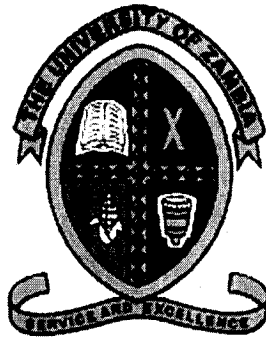
A. Replacement Method

(13 Marks)

B. Weighted Average

(12 Marks)

**END OF EXAMINATION**



# THE UNIVERSITY OF ZAMBIA

## GRADUATE SCHOOL OF BUSINESS

### JANUARY – FEBRUARY EXAMINATION

Time: 3 hours

Subject: **Audit & assurance (BAF 3211)** ~~BAF 4010~~

Date: 2/02/2021

Level: 3<sup>rd</sup> & 4<sup>th</sup> year

### EXAMS INSTRUCTIONS

1. Read the examination instruction very carefully
2. Two sections marked A and B
3. Section A Compulsory
4. Section B has three questions – answer any two

## The following scenario relates to questions 1-5. (8 Marks)

You are an audit senior of YHT & Co and have worked on the external audit of BJM Co (BJM), an unlisted company, since your firm was appointed external auditor two years ago.

BJM owns a chain of nine restaurants and is a successful company. BJM has always been subject to national hygiene regulations, especially in relation to the food preparation process. Noncompliance can result in a large fine or closure of the restaurant concerned.

The board of BUM has recently notified you that the national hygiene regulations have been updated and are now much more stringent and onerous than before.

With this in mind, the board has asked your firm to conduct a review of BJM's compliance with hygiene regulations, in order to allow the board to assess whether the appropriate processes have been implemented at each of the nine restaurants. The review is not expected to include the provision of accounting advice or the preparation of figures in the financial statements.

The work is likely to be very lucrative. Your firm has sufficient experience to undertake the above review engagement.

1 Despite running a successful company, BJM's board has often needed to be reminded of some fundamental principles and you often have to explain key concepts.

Which of the following statements best defines the external audit?

- ☐ The external audit is an exercise carried out by auditors in order to give an opinion on whether the financial statements of a company are fairly presented.
- ☐ The external audit is an exercise carried out in order to give an opinion on the effectiveness of a company's internal control system.
- ☐ The purpose of the external audit is to identify areas of deficiency within a company and to make recommendations to mitigate those deficiencies.
- ☐ The external audit provides negative assurance on the truth and fairness of a company's financial statements.

2 The board has also struggled to differentiate between its responsibilities and those of the external auditor in circumstances such as the prevention and detection of and compliance fraud and error, with regulations.

Which of the following statements best describes YHT Co's responsibility regarding BJM's compliance with hygiene regulations, in line with ISA 250 (Revised) Consideration of Laws and Regulations in an Audit of Financial Statements?

- ☐ YHT & Co should actively prevent and detect non-compliance with the regulations.
- ☐ YHT & Co should perform specific audit procedures to identify possible noncompliance.
- ☐ YHT & Co should obtain sufficient appropriate audit evidence about BJM's compliance with the regulations as they have a direct effect on the financial statements.
- ☐ YHT & Co does not have any responsibility as the hygiene regulations do not have a direct effect on the financial statements.

3 The partner responsible for the review of hygiene compliance has informed you that the engagement is an assurance engagement.



Which of the following would NOT have been relevant to the partner in forming this opinion?

- ☐ The existence of a three-party relationship
- ☐ The existence of suitable criteria
- ☐ The determination of materiality
- ☐ The subject matter

4 The partner responsible for the review engagement has asked you to tell him what level of assurance you believe YHT & Co should provide, and also what type of opinion the firm should give.

What is the level of assurance and type of opinion that can be provided on this review engagement?

Level of assurance	Report wording
<input type="checkbox"/> Reasonable	Positive
<input type="checkbox"/> Reasonable	Negative
<input type="checkbox"/> Limited	Positive
<input type="checkbox"/> Limited	Negative

5 The audit engagement partner has told you that the independence threats arising from YHT & Co performing the review engagement should be monitored carefully.

Which of the following is likely to cause the audit engagement partner most concern?

- ☐ According to the ACCA Code of Ethics and Conduct, YHT & Co is prohibited from providing other assurance services to an audit client.
- ☐ The review engagement is likely to give rise to a self-review threat, as the outcomes of the review could form the basis of the financial statements which the audit team will audit.
- ☐ The lucrative nature of the review engagement may make the external audit team less inclined to require management to make adjustments or to issue a modified audit opinion, for fear of losing the review engagement.
- ☐ If the new review engagement causes YHT & Co's fee income from BJM to exceed 15% of the firm's total fees, the ACCA Code of Ethics and Conduct states that the new engagement must be turned down.

### **The following scenario relates to questions 6-10. (8 Marks)**

Conoy designs and manufactures luxury motor vehicles. It is not a listed company, but its board has recently decided that it would like to improve its corporate governance in order to apply best practice. Conoy's shares are held equally by six shareholders, four of whom are also executive directors. The remaining two shareholders are not involved with Conoy, other than as shareholders.

Conoy has an internal audit department which is managed by Adrian Muse, the chief internal auditor. Adrian frequently comments that Conoy's board does not understand his reports, and does not provide sufficient support for his department and for the company's internal control systems. RWG & Co, Conoy's external auditors, have also expressed concern in this area.

Adrian has submitted a proposal to the board to establish an audit committee, and this is currently under consideration. The proposed membership of the audit committee is:

- Adrian Muse (chief internal auditor)

- Penny Dinty (existing executive director with some financial expertise)
- Sharon Header (proposed new non-executive director)
- Fredrick Rowe (proposed new non-executive director)

The board is also considering a significant expansion of the company. However, the company's bank is concerned by the standard of financial reporting as Conoy's finance director recently left the company. The board is delaying providing the bank with financial information until a new finance director has been appointed.

As part of its commitment to the effectiveness of the external audit process, the chair of Conoy's audit committee, Leslie Schiff, is keen to ensure that the external audit makes use of the latest auditing techniques. She has heard about data analytics routines, but is unsure exactly what they entail.

**6** Conoy's internal audit department is currently not well understood or supported by the board

Which TWO of the following statements describe the main advantages of establishing audit committee?

- ☐ The position of the internal audit department will be strengthened within the or
- ☐ Corporate governance will be enhanced as the board of directors will committee.
- ☐ The effectiveness of the internal audit department will be improved as the audit will monitor and review its performance on a regular basis.
- ☐ The workload of the internal audit department will be better managed as the audit committee will be able to minimize the extent to which the external auditor rely on the work of the internal auditors.

**7** Once established, the audit committee will have many objectives.

Which of the following does NOT form part of the audit committee's objectives?

- ☐ Safeguarding the privacy of whistleblowers
- ☐ Appointing the external auditor
- ☐ Monitoring the independence of the external auditor
- ☐ Implementing a policy on the supply of non-audit services by the external auditor

**8** In relation to the proposed membership of the audit committee, state whether each proposed member should be included or not.

Proposed member	Include in audit committee	Do not include in audit committee
Adrian Muse	<input type="checkbox"/>	<input type="checkbox"/>
Penny Dinty	<input type="checkbox"/>	<input type="checkbox"/>
Sharon Header	<input type="checkbox"/>	<input type="checkbox"/>

**9** Which of the following statements best describes why having an audit committee could help Conoy raise additional finance by addressing the concerns of the bank?

- ☐ The independent non-executive members of the audit committee can provide guarantees to the bank concerning Conoy's financial viability.
- ☐ The audit committee will have at least one member who has relevant financial experience. This person will be able to stand in as Conoy's finance director before a new finance director is appointed.

- ☐ The audit committee will have at least one member who has relevant financial experience, so that they can monitor the integrity of the financial statements.
- ☐ The audit committee will review all the available evidence to substantiate information in financial reporting, thus improving the credibility of the financial statements.

**10** The following statements concern the auditor's use of data analytics routines is true. Indicate whether each statement is false?

True                      False

A key drawback of data analytics software is that it is difficult to tailor to each particular audit client

Data analytics routines enable auditors to examine complex data using simple visualization techniques

Although powerful, data analytics routines must be applied to strictly limited quantities of data so as to extrapolate correctly from a sample

### **The following scenario relates to questions 11—15.(8 Marks)**

You are an audit manager of Ali & Co and have just been assigned the audit of Stark Co (Stark). Stark, a listed company, provides investment advice to individuals, and is regulated by the relevant financial conduct authority.

Mr Day, a partner in Ali & Co, has been the audit engagement partner for Stark for the previous nine years and has excellent knowledge of the client. Mr Day has informed you that he would like his daughter Zoe to be part of the audit team this year; Zoe is currently studying for her first set of exams for her ACCA qualification.

In an initial meeting with the finance director of Stark, you learn that the audit team will not be entertained on Stark's yacht this year; instead, he has arranged a balloon flight costing less than one-tenth of the expense of using the yacht and hopes this will be acceptable.

Ali & Co has always carried out tax advisory work for Stark. The tax advisory services do not have an impact on the figures reported in the financial statements. The finance director has stated that he feels strongly that the firm that offers taxation services this year should charge a fee which is based on a percentage of tax saved. He also trusts that your firm will accept a fixed fee for representing Stark in a dispute regarding the amount of sales tax payable to the taxation authorities.

**11** From a review of the information above, your audit assistant has highlighted some potential risks to independence in respect of the audit of Stark.

- (1) Mr Day would like his Zoe to be part of the audit team
- (2) Audit team to be offered a balloon flight
- (3) Tax fee to be based on a percentage of tax saved
- (4) Firm to represent Stark in a dispute with the tax authorities

Which of the following options best identifies the valid threats to independence and allocates the threat to the most appropriate category.

Advocacy	Intimidation	Self-interest
<input type="checkbox"/> (3) and (4)	<input type="checkbox"/> (3) only	<input type="checkbox"/> (1) and (2)
<input type="checkbox"/> (4) only	<input type="checkbox"/> (3) only	<input type="checkbox"/> (2) and (3)
<input type="checkbox"/> (3) only	<input type="checkbox"/> (3) and (4)	<input type="checkbox"/> (2) only
<input type="checkbox"/> (3) and (4)	<input type="checkbox"/> (1) and (4)	<input type="checkbox"/> (1) and (2)

**12** In relation to the audit team being offered a balloon ride:

Which of the following actions should be taken to ensure the firm complies with ACCA's Code of Ethics and Conduct?

- ☐ The gift may be accepted as Stark has taken appropriate measures to reduce the value of the gift compared to previous years.
- ☐ The value of the gift should be assessed to determine whether it is of material value to the financial statements
- ☐ The gift should only be accepted if its value is trivial and inconsequential to the recipients.
- ☐ Only the audit engagement partner and audit manager should accept the gift.

**13** In relation to the audit engagement partner holding the role for nine years:

Which of the following safeguards should be implemented in order to comply with ACCA's code of Ethics and Conduct?

- ☐ An independent review partner should be appointed to the audit.
- ☐ The audit engagement partner should be removed from the audit team but may serve as a quality control reviewer.
- ☐ Ali & Co should not audit Stark for a five-year period.
- ☐ The audit engagement partner should be removed from the audit team.

**14** Mr Day's daughter, Zoe, is currently learning about International Standards on Auditing (ISAs) in her studies. She has asked you for clarification of the following.

Which is the correct order of the following stages involved in the development of an ISA?

1. Distribution of exposure draft for public comment
2. Consideration of comments received from the public
3. Approval by IAASB members
4. Establishment of task force to develop draft standard
5. Discussion of proposed standard at a public meeting

☐ 1, 5, 4, 3, 2

☐ 2, 4, 1, 3, 5

☐ 4, 5, 1, 2, 3

☐ 5, 4, 2, 1, 3

**15** Zoe is also concerned that Ali & Co might breach confidentiality were the audit firm to represent Stark in its dispute with the tax authorities.

Which of the following statements best reflects the auditor's duty of confidentiality?

- ☐ Auditors must never, under any circumstances, disclose any matters of which they become aware during the course of the audit to third parties, without the permission of the client.
- ☐ Auditors may disclose any matters in relation to criminal activities to the police or taxation authorities, if requested to do so by the police or a tax inspector.
- ☐ Auditors may disclose matters to third parties without their client's consent if it is in the public interest, and they must do so if there is a statutory duty to do so.
- ☐ Auditors may only disclose matters to third parties without their client's consent if the public interest or national security is involved.

**The following scenario relates to questions 16—20. (8 Marks)**

You are an audit manager of Satsuma C Co and have been assigned to the audit of Tangerine Tech Co (Tangerine), a company which is planning to list on a stock exchange within six months. The listing rules of the stock exchange require compliance with corporate governance principles, and the directors are unsure whether they are following best practice in relation to this. They have asked the audit engagement partner for their view on this matter.

Tangerine's board is comprised of six executive directors, a non-executive chairman and three other non-executive directors (NEDs). The chairman and one of the NEDs are former directors of Tangerine and on reaching retirement age were asked to take on non-executive roles. The company has established an audit committee, and all NEDs are members including the chairman who chairs the committee. All four members of the audit committee were previously involved in sales or production related roles.

All of the directors have been members of the board for at least four years. As the chairman does not have an executive role, he has a sole responsibility for liaising with the shareholders and answering their questions. The company has not established an internal audit function to monitor internal controls.

**16** Which of the following features are corporate governance weaknesses which Tangerine Co would need to address prior to their listing?

- ☐ (1) The chairman has sole responsibility for liaising with shareholders.
  - ☐ (2) The company has not established an internal audit function.
  - ☐ (3) The chairman and one of the NEDs are former executive directors of Tangerine Co.
- ☐ 1 and 2 only  
☐ 1 and 3 only  
☐ 2 and 3 only  
☐ 1, 2 and 3

**17** The audit engagement partner's review has identified the following additional corporate governance weaknesses:

- ☐ (1) All the directors have been members of the board for at least four years.
- ☐ (2) The board is comprised of six executive and four non-executive directors.

Which of the following would the audit engagement partner recommend to address these weaknesses to ensure compliance with corporate governance principles?

**Weakness 1**

The directors should be subject to annual re-election

The directors must be reappointed annually by the chairman

The directors should be subject to annual re-election

The directors must be reappointed annually by the chairman

**Weakness 2**

At least 50% of the board, excluding the Chair, must be comprised of nonexecutive directors whom the board considers to be independent

At least 75% of the board must be comprised of executive directors

At least 75% of the board must be comprised of executive directors

At least 50% of the board, excluding the Chair, must be comprised of nonexecutive directors whom the board considers to be independent

**18** The audit engagement partner has assessed the make-up of the audit committee. Which of the following would be valid conclusions from this assessment?

- (1) It is acceptable for the chairman to chair the audit committee.
- (2) A new member of the audit committee with relevant financial experience must be recruited.

only

2 only

1 and 2

Neither 1 nor 2

**19** The directors are aware that in accordance with corporate governance provisions they have responsibilities for internal control but are unclear as to the extent of these responsibilities.

Which of the following correctly describes their responsibilities?

**To review internal controls annually**

**To report on internal controls to shareholders**

No

No

Yes

No

No

Yes

Yes

Yes

**20** The board of Tangerine is considering establishing an internal audit function.

Which of the following factors would be relevant in making this decision?

- (1) It would help the audit committee to discharge its responsibilities for monitoring internal control.
- (2) The board would no longer need to take responsibility for the prevention and detection of fraud and error.
- (3) The costs of establishing an internal audit function should be considered against the benefits gained.

- ☐ 1 and 2 only
- ☐ 1 and 3 only
- ☐ 2 and 3 only
- ☐ 1, 2 and 3

## The following scenario relates to questions 21—25.(8 Marks)

You are the audit manager of Jones & Co and you are planning the audit of LV Fones Co, a limited company, which has been an audit client for four years and specializes in manufacturing luxury mobile phones.

During the planning stage of the audit you have obtained the following information. The employees of LV Fones Co are entitled to purchase smartphones at a discount of 10%. The audit team has in previous years been offered the same level of staff discount.

During the year the financial controller of LV Fones was ill and hence unable to work. The company had no spare staff able to fulfil the role and hence a qualified audit senior of Jones & Co was seconded to the client for three months to cover the work of the financial controller. The audit engagement partner has recommended that the audit senior work on the audit as he has good knowledge of the client. The fee income derived from LV Fones was boosted by this engagement and, along with the audit and tax fee, now accounts for 16% of the firm's total fee (15.7% last year).

From a review of the correspondence files you note 20% of last year's audit fee is still outstanding.

Based on the information above you have summarized some of the potential risks to independence in the audit of LV Fones as follows.

- (1) The audit team has been offered a discount on luxury phones.
- (2) The audit senior was seconded to LV to cover for the financial controller.
- (3) Total fees from is over 15% of the total fees of the firm for the second consecutive year
- (4) Fees are overdue in respect of last year's audit

**21** Which of the following options best identifies the valid potential threats to independence the audit of LV Fones and allocates the threat to the most appropriate category?

### Self-interest

- ☐ 1 and 2 only
- ☐ 3 and 4 only
- ☐ 1, 3 and 4
- ☐ 3 only

### Self-review

- ☐ 3 and 4 only
- ☐ 1 and 2 only
- ☐ 2 only
- ☐ 1,2 and 4

**22** You have also discovered that the audit engagement partner and the finance director have known each other socially for many years, and in fact went on holiday together last summer with their families to the finance director's villa.

Which **Two** threats to independence are raised by this relationship and what safety measures should be applied?

**Threats**

- ☐ Familiarity and self-interest
- ☐ Self-review and intimidation
- ☐ Self-review and intimidation
- ☐ Familiarity and self-interest

**Safeguards**

- Jones & Co to resign as auditor
- Rotation of the auditor engagement
- Jones & Co to resign as auditor
- Rotation of audit engagement

**23** In relation to the audit team being offered a 10% discount on mobile phones:

Indicate whether the following statements are true or false, in accordance with ACCA's Code of Ethics and Conduct.

	True	False
The audit team can accept the discount as it is on the same terms as that offered to staff	<input type="checkbox"/>	<input type="checkbox"/>
Junior members of the audit team are allowed to accept the discount, but the audit manager and audit engagement partner should not	<input type="checkbox"/>	<input type="checkbox"/>
Unless the value of the discount is trivial and inconsequential to the audit team members, the offer should be declined	<input type="checkbox"/>	<input type="checkbox"/>
The audit team is only allowed to accept a discount of up to 5%	<input type="checkbox"/>	<input type="checkbox"/>

**24** Which of the following steps must Jones & Co take, as the fees from LV have exceeded 15% for the last two years?

- (1) Resign from the audit
  - (2) Disclose the matter to those charged with governance
  - (3) Arrange for a pre- or post-issuance review
- ☐ 1 only  
☐ 2 only  
☐ 3 only  
☐ 2 and 3

**25** The finance director of LV has made some enquiries about the other services that Jones C Co may be able to assist with.

In the table below indicate whether Jones C Co would or would not be able to provide the other services.

**Service can be provided**

**Service cannot be provided**



Design and implementation of IT systems  
over financial reporting

Assistance with preparation of tax return

Accounting services

Recruiting service for the position of the  
credit controller

## SECTION B

### Question 1 ONE

You are an audit supervisor of Earl & Co and are planning the audit of Darjeeling Co for the year ending 30 September 20x8. The company develops and manufactures specialist paint products and has been a client of your firm for several years. The audit manager has attended a planning meeting with the finance director and has provided you with the following notes of the meeting and financial statement extracts. You have been asked by the audit manager to undertake preliminary analytical procedures using the financial statement extracts

#### Planning meeting notes

During the year Darjeeling Co has spent \$0.9m, which is included within intangible assets, on the development of new product lines, some of which are in the early stages of their development cycle. Additionally, as the company is looking to expand production, during the year it purchased and installed a new manufacturing line. All costs incurred in the purchase and installation of that asset have been included within property, plant and equipment. These capitalised costs include the purchase price of \$2.2m, installation costs of \$0.4m and a five-year servicing and maintenance plan costing \$0.5m. In order to finance the development projects and the new manufacturing line, the company borrowed \$4m from the bank which is to be repaid in instalments over eight years and has an interest rate of 5%. Developing new products and expanding production is important as the company intends to undertake a stock exchange listing in the next 12 months.

The company started a number of initiatives during the year in order to boost revenue. It offered extended credit terms to its customers on the condition that their sales order quantities were increased. In addition, Darjeeling Co made an announcement in October 20x7 of its 'price promise': that it would match the prices of any competitor for similar products purchased. Customers who are able to prove that they could purchase the products cheaper elsewhere are asked to claim the difference from Darjeeling Co, within one month of the date of purchase of goods, via its website. The company intends to include a refund liability of \$0.25m, which is based on the monthly level of claims to date, in the draft financial statements.

The finance director informed the audit manager that a problem arose in June 20x8 in relation to the mixing of materials within the production process for one particular product line. A number of these faulty paint products had already been sold and the issue was identified following a number of complaints from customers about the paint consistency being incorrect. As a precaution, further sales

have been stopped and a product recall has been initiated for any of these specific paint products sold since June. Management is investigating whether the paint consistency of the faulty products can be rectified and subsequently sold.

#### Financial statement extracts for year ending 30 September

	Forecast	Actual
	20X8	20X7
	\$'000	\$'000
Revenue	19,850	16,990
Cost of sales	<u>(12,440)</u>	<u>(10,800)</u>
Gross profit	<u>7,410</u>	<u>6,190</u>
Inventory	1,850	1,330
Trade receivables	2,750	1,780
Bank	(810)	560
Trade payables	1,970	1,190

#### Required

- Explain why analytical procedures are used during THREE stages of an audit. **(3 marks)**
- Calculate THREE ratios, for BOTH years, which would assist you in planning the audit of Darjeeling Co. **(3 marks)**
- Using the information provided and the ratios calculated, describe EIGHT audit risks and explain the auditor's response to each risk in planning the audit of Darjeeling Co. Note: Prepare your answer using two columns headed Audit risk and Auditor's response respectively. **(16 marks)**
- Describe substantive procedures the auditor should perform in relation to the faulty paint products held in inventory at the year end. **(3 marks)**
- Describe substantive procedures the auditor should perform to obtain sufficient and appropriate evidence in relation to Darjeeling Co's revenue. **(5 marks)**

**(Total = 30 marks)**

## Question 2 (TWO)

#### Introduction and client background

You are an audit senior in Staple and Co and you are commencing the planning of the audit of Smoothbrush Paints Co (Smoothbrush) for the year ending 31 August 20X0.

Smoothbrush is a paint manufacturer and has been trading for over 50 years. It operates from one central site which includes the production facility, warehouse and administration offices.

Smoothbrush sells all of its goods to large home improvement stores, with 60% being to one large chain store called Homewares. The company has a one-year contract to be the sole supplier of paint to Homewares. It secured the contract through significantly reducing prices and offering a four-month

credit period; the company's normal credit period is one month.

### **Goods in/purchases**

In recent years, Smoothbrush has reduced the level of goods directly manufactured and has instead started to import paint from South Asia. Approximately 60% is imported and +0% manufactured. Within the production facility is a large amount of old plant and equipment that is now redundant and has minimal scrap value. Purchase orders for overseas paint are made six months in advance and goods can be in transit for up to two months. Smoothbrush accounts for the inventory when it receives the goods.

To avoid the disruption of a year-end inventory count, Smoothbrush has this year introduced a continuous/perpetual inventory counting system. The warehouse has been divided into 12 areas and these are each to be counted once over the year. The counting team includes a member of the internal audit department and a warehouse staff member. The following procedures have been adopted:

- (1) The team prints the inventory quantities and descriptions from the system and these records are then compared to the inventory physically present.
- (2) Any discrepancies in relation to quantities are noted on the inventory sheets, including any items not listed on the sheets but present in the warehouse area.
- (3) Any damaged or old items are noted and they are removed from the inventory sheets.
- (4) The sheets are then passed to the finance department for adjustments to be made to the records when the count has finished.
- (5) During the counts there will continue to be inventory movements with goods arriving and leaving the warehouse.

At the year-end it is proposed that the inventory will be based on the underlying records. Traditionally Smoothbrush has maintained an inventory provision based on 1% of the inventory value, but management feels that as inventory is being reviewed more regularly it no longer needs this provision.

### **Finance director**

In May 20X0 Smoothbrush had a dispute with its finance director (FD) and he immediately left the company. The company has temporarily asked the financial controller to take over the role while they recruit a permanent replacement. The old FD has notified Smoothbrush that he intends to sue for unfair dismissal. The company is not proposing to make any provision or disclosures for this, as they are confident the claim has no merit.

### **Required**

- (a) Using the information provided, describe FIVE audit, and explain the auditor's response to each risk in planning the audit of Smoothbrush Paints Co.

Note. Prepare your answer using two columns headed Audit risk and Auditor's response respectively. **(10 marks)**

(b) Discuss the importance of assessing risks at the planning stage of an audit. **(4 marks)**

(c) List and explain suitable controls that should operate over the continuous/perpetual inventory counting system, to ensure the completeness and accuracy of the existing inventory records at Smoothbrush Paints Co. **(10 marks)**

(d) Describe THREE substantive procedures that the auditor of Smoothbrush Paints Co should perform at the year-end in confirming each of the following:

(i) The valuation of inventory **(3 marks)**

(ii) The completeness of provisions or contingent liabilities **(3 marks)**

**(Total 30 marks)**

### **Question 3 (THREE)**

#### **1 Nasilele & Co**

(a) ISA 200 Overall objectives of the accordance independent auditor and the conduct of an audit in with International Standards on Auditing states that the overall objectives of an audit of financial statements is to obtain reasonable assurance about whether the financial statements are free from material misstatements whether due to fraud or error and to enable the auditors to form an opinion on the financial statements.

In order for the auditor to achieve the overall objective of the audit, he needs to plan and perform the audit with professional scepticism and apply professional judgment.

Required

Explain what is meant by professional scepticism and professional judgment and state two situations when the auditor applies professional judgment in the course of an audit. **(8 marks)**

(b) You are an audit senior in Nasilele & Co and you are commencing the planning of the audit of Meenda Water and Sewerage Ltd (MWS Ltd) for the year ended 31 August 20X3.

MWS Ltd is a utility company supplying water to the eastern suburbs of the city. The company pumps its water some 50 kilometres away from the city and has a pipeline from the source to large reservoirs. The company has a water treatment plant at the catchment point where purification chemicals are added.

The company operations are subject to regulation by a National Water and Sanitation commission. There are legal requirements that must be met in terms of the quality of the water supplied and the quantities of the treatment chemicals added. It is a legal requirement that samples of water are obtained and tested daily from the main reservoir and test certificates signed by a qualified water engineer should be kept for inspection. The water testing equipment for MWS Ltd is defective and so the company is using an outside testing facility to do this.

Quantities of water are determined by carrying out dips at the main reservoir and the dips are converted into the quantities per approved calibration charts. Any errors in the dips will result in wrong

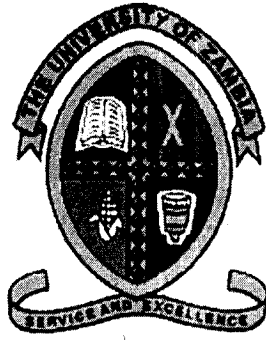
quantities being taken. At the year end the company will continue receiving and pumping water and so closing inventory will be based on book volumes based on meter readings for receipts and discharge of water into the network.

About 40% of the business of MWS Ltd is with government and semi government departments. At the year end the debt from government amounted to K45.78m. It has been company policy that an allowance for receivables of 30% of the outstanding government debt is made at the end of the year. In the current year, the company has decided that the allowance should be reduced to only 5% of the outstanding debt. There is no indication that this debt will be cleared in the near future.

During the year under review, there was a spillage of sewer waste arising from a broken pipe. This was near a leading hotel and the stench arising from the spill was unbearable. As a result there was a noted decrease in clients for the hotel resulting in the hotel suffering losses. The hotel has sued MWS Ltd and the case has not been concluded at the year end.

#### **Required**

- (i) Discuss the importance of assessing risks at the planning stage of an audit **(4 marks)**
  - (ii) Identify audit risks arising at the planning stage of the audit of Meenda Water and Sewerage and for each risk identified, explain why it is a risk. **(11 marks)**
  - (iii) For the risks identified above, describe the possible audit work that should be performed in response to those risks. **(11 marks)**
- (Total = 30 marks)**



# The University of Zambia

## GRADUATE SCHOOL OF BUSINESS (GSB)

### DEFEERED/SUPPLIMENTARY EXAMINATION

Duration: 3 hours  
Subject: Audit & assurance (BAF 3211)  
Date: 08/04/2021  
Time: 14:00HOURS TO 17:00HOURS  
Level: 3<sup>rd</sup> & 4<sup>th</sup> year

### EXAMS INSTRUCTIONS

1. Read the examination instruction very carefully
2. Two sections marked A and B
3. Section A Compulsory
4. Section B has three questions – answer any two

## SECTION A

### Question 1

Management is responsible for putting in place adequate controls in an organisation to enable it achieve its objectives. The internal audit department is one of the controls that managements in most large organisations put in place. Internal auditors are employees of the organisation and as such their objectivity in the conduct of their work is brought into question. There are different views as to the reporting lines of the internal audit department. It is becoming common for entities to outsource internal audit services. Most external audit firms do offer internal audit services in addition to assurance services.

*Required*

- i. Explain, with reasons, why the internal audit department should or should not report to the following in the organisation:
  - The board of directors **(3 marks)**
  - The Financial Controller **(2 marks)**
- ii. Discuss the potential problems of the same audit firm offering assurance services and also internal audit services clearly explaining how they can be overcome. **(6 marks)**
- iii. Explain the advantages and disadvantages to a company of outsourcing internal audit services. **(8 marks)**

ISA 500 *Audit evidence* requires auditors to design and perform audit procedures that are appropriate in the circumstances for the purposes of obtaining sufficient appropriate audit evidence.

*Required*

Discuss the importance of the evidence that the auditor gathers during the course of the audit and explain the meaning of sufficient appropriate audit evidence. **(6 marks)**

**(Total marks = 25 marks)**

### Question 2

You are the auditor of Mulenga Ltd ('Mulenga'), a company which manufactures and sells small cuddly toys by mail order. The company is managed by Mr Kafula and two assistants. Mr Kafula authorises

important transactions such as wages and large orders, one assistant maintains the payables ledger and orders inventory and pays suppliers, and the other assistant receives customer orders and despatches cuddly toys. Due to other business commitments Mr Kafula only visits the office once per week.

At any time, about 100 different types of cuddly toys are available for sale. All sales are made cash with order - there are no receivables. Customers pay using credit cards and occasionally by sending cash.

You are planning the audit of Mulenga and are considering using some of the procedures for gathering audit evidence recommended by ISA 500 as follows:

- i. Analytical procedures
- ii. Inquiry
- iii. Inspection
- iv. Observation
- v. Recalculation

*Required*

(a) For **each** of the above procedures:

- i. Explain its use in gathering audit evidence **(5 marks)**
- ii. Describe one example for the audit of Mulenga **(5 marks)**

(b) Discuss the suitability of each procedure for Mulenga, explaining the limitations of each. **(10 marks)**

List and explain five (5) financial statement assertions relating to classes of transactions and events and related disclosures. **(5 marks)**

**(Total = 25 marks)**

## **SECTION B**

### **Question 3**

Define the going concern basis of accounting and briefly explain the auditor's responsibilities in relation to going concern in accordance with ISA 570 (Revised) *Going concern*. **(6 marks)**

MM Ltd ('MM') is an established pharmaceutical company that has for many years generated 90% of its revenue through the sale of two specific cold and flu remedies. MM has lately seen a real growth in the level of competition that it faces in its market and demand for its products has significantly declined. To make matters worse, in the past the company has not invested sufficiently in new product development and so has been trying to remedy this by recruiting suitably trained scientific staff, but this has proved more difficult than anticipated.

In addition to recruiting staff, the company also needed to invest K2m in plant and machinery. The company wanted to borrow this sum but was unable to agree suitable terms with the bank; therefore it used its overdraft facility, which carried a higher interest rate. Consequently, some of MM's suppliers have been paid much later than usual and hence some of them have withdrawn credit terms meaning the company must pay cash on delivery. As a result of the above the company's overdraft balance has grown substantially.

The directors have produced a cash flow forecast and this shows a significantly worsening position over the coming 12 months.

The directors have informed you that the bank overdraft facility is due for renewal next month, but they are confident that it will be renewed. They also strongly believe that the new products which are being developed will be ready to market soon, and hence trading levels will improve and



therefore that the company is a going concern. Therefore they do not intend to make any disclosures in the accounts regarding going concern.

*Required*

- i. Identify any potential indicators that the company is not a going concern and describe why these could impact upon the ability of the company to continue trading on a going concern basis. **(7 marks)**
- ii. Explain the audit procedures that the auditor of MM should perform in assessing whether or not the company is a going concern. **(6 marks)**

(c)

The auditors have been informed that MM's bankers will not make a decision on the overdraft facility until after the audit report is completed. The directors have now agreed to include going concern disclosures.

*Required*

Describe the impact on the audit report of MM if the auditor believes the company is a going concern but a material uncertainty exists. **(6 marks)**

**(Total = 25 marks)**

## **Question 4**

a) For 20 years and in 80 countries, Helpbonse, a Non-Governmental Organisation (NGO) has empowered people in developing appropriate survival business skills needed in the modern global environment. It delivers technical and management assistance in all sectors of the economy. A core aspect of its mission statement is the promotion of broad-based economic growth and vibrant communities. Its headquarters is in Mwinilunga, in Northwestern Province.

Helpbonse recently recruited an Internal Auditor following recommendations made by the External Auditor. The controls have always been assessed as poor. A number of frauds have gone undetected and most donors want to stop supporting Helpbonse. Management has repeatedly refused to provide the much needed representations to the external auditors. The Governing Board is excited about the recruitment of the Internal Auditor. One of the board members is confident that all the outstanding issues in the management letter will be resolved.

*Required*

- i. Define internal audit. **(2 marks)**
  - ii. List and explain three (3) differences between internal and external auditors. **(6 marks)**
  - iii. Discuss the role of the Internal Auditor in the prevention, detection and correction of fraud. **(5 marks)**
  - iv. Discuss some of the activities that could be undertaken by the internal auditor of Helpbonse. **(5 marks)**
- 
- i. Distinguish between a representation letter and a management letter. **(4 marks)**
  - ii. State three (3) possible actions to be taken by external auditors if management does not provide the requested written representations. **(3 marks)**

(Total = 25 marks)

### Question 5

You are the audit senior of Banda & Co and are planning the audit of Habeenzu Co ('Habeenzu') for the year ended 30 September 20X4. The company produces printers and has been a client of your firm for two years; your audit manager has already had a planning meeting with the finance director. He has provided you with the following notes of his meeting and financial statement extracts.

Habeenzu's management were disappointed with the 20X3 results and so in 20X4 undertook a number of strategies to improve the trading results. This included the introduction of a generous sales-related bonus scheme for their salesmen and a high profile advertising campaign. In addition, as market conditions are difficult for their customers, they have extended the credit period given to them.

The finance director of Habeenzu has reviewed the inventory valuation policy and has included additional overheads incurred this year as he considers them to be production related. He is happy with the 20X4 results and feels that they are a good reflection of the improved trading levels.

#### FINANCIAL STATEMENT EXTRACTS FOR THE YEAR ENDED 30 SEPTEMBER

	Draft 20X4 Km	Actual 20X3 Km
Revenue	23.0	18.0
Cost of sales	<u>(11.0)</u>	<u>(10.0)</u>
Gross profit	12.0	8.0
Operating expenses	<u>(7.5)</u>	<u>(4.0)</u>
Profit before interest and taxation	<u>4.5</u>	<u>4.0</u>
Inventory	2.1	1.6
Receivables	4.5	3.0
Cash	-	2.3
Trade payables	1.6	1.2
Overdraft	0.9	-

#### Require

Among the information above:

- Calculate **five** ratios, for **both** years, which would assist the audit senior in planning the audit. **(6 marks)**
- From a review of the above information and the ratios calculated, explain the audit risks and describe the appropriate responses to these risks. **(12 marks)**
- Discuss the use of analytical procedures at each stage of the audit process, from planning through to finalisation. **(7 marks)**

(Total = 25 marks)



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

Time: 3 hours  
Subject: **Audit & assurance (BAF 3211)**  
Date: Monday 24<sup>th</sup> January 2022  
Level: 3<sup>rd</sup> & 4<sup>th</sup> year

## **EXAMS INSTRUCTIONS**

1. Read the examination instruction very carefully
2. Two sections marked A and B
3. Section A Compulsory
4. Section B has four questions – answer any three

## SECTION A

### Question 1

You are an audit supervisor of Shawn& Co and are planning the audit of GSB Co for the year ending 30 September 20X8. The company develops and manufactures specialist paint products and has been a client of your firm for several years. The audit manager has attended a planning meeting with the finance director and has provided you with the following notes of the meeting and financial statement extracts. You have been asked by the audit manager to undertake preliminary analytical procedures using the financial statement extracts.

#### Planning meeting notes

During the year GSB Co has spent \$0.9m, which is included within intangible assets, on the development of new product lines, some of which are in the early stages of their development cycle. Additionally, as the company is looking to expand production, during the year it purchased and installed a new manufacturing line. All costs incurred in the purchase and installation of that asset have been included within property, plant and equipment. These capitalized costs include the purchase price of \$2.2m, installation costs of \$0.4m and a five-year servicing and maintenance plan costing \$0.5m. In order to finance the development projects and the new manufacturing line, the company borrowed \$4m from the bank which is to be repaid in instalments over eight years and has an interest rate of 5%. Developing new products and expanding production is important as the company intends to undertake a stock exchange listing in the next 12 months.

The company started a number of initiatives during the year in order to boost revenue. It offered extended credit terms to its customers on the condition that their sales order quantities were increased. In addition, Shawn Co made an announcement in October 20X7 of its 'price promise': that it would match the prices of any competitor for similar products purchased. Customers who are able to prove that they could purchase the products cheaper elsewhere are asked to claim the difference from Shawn Co, within one month of the date of purchase of goods, via its website. The company intends to include a refund liability of \$0.25m, which is based on the monthly level of claims to date, in the draft financial statements.

The finance director informed the audit manager that a problem arose in June 20X8 in relation to the mixing of materials within the production process for one particular product line. A number of these faulty paint products had already been sold and the issue was identified following a number of complaints from customers about the paint consistency being incorrect. As a precaution, further sales have been stopped and a product recall has been initiated for any of these specific paint products sold since June. Management is investigating whether the paint consistency of the faulty products can be rectified and subsequently sold.

Financial statement extracts for year ending 30 September

Forecast

Actual

	20X8	20X7
	\$'000	\$'000
Revenue	19,850	16,990
Cost of sales	<u>(12,440)</u>	<u>(10,800)</u>
Gross profit	7,410	6,190
<hr/>		
Inventory	1,850	1,330
Trade receivables	2,750	1,780
Bank	(810)	560
Trade payables	1,970	1,190

**Required**

- (a) Explain why analytical procedures are used during THREE stages of an audit. (4 marks)
- (b) Calculate THREE ratios, for BOTH years, which would assist you in planning the audit of Shawn Co. (4 marks)
- (c) Using the information provided and the ratios calculated, describe EIGHT audit risks and explain the auditor's response to each risk in planning the audit of Shawn Co.

Note: Prepare your answer using two columns headed Audit risk and Auditor's response respectively. (20 marks)

- (d) Describe substantive procedures the auditor should perform in relation to the faulty paint products held in inventory at the year end. (5 marks)
- (e) Describe substantive procedures the auditor should perform to obtain sufficient and appropriate evidence in relation to Shawn Co's revenue. (7 marks)

**(Total 40 marks)**

## Section B

### Question 2

Write a brief notice on each of the following;

- a. Around the computer and within the computer
- b. Objectivity
- c. Professional competence and due care
- d. Confidentiality
- e. Professional behavior
- f. Engagement letter
- g. Representation letter
- h. Management letter
- i. Integrity
- j. Statutory audit

**(Total 20 Marks)**

### Question 3

Corporate governance is the system by which organizations are managed and run, In recent years there has been an increased concern world over on how organizations are run and this concern is arising from the many organizations that have collapsed and failed.

Risk Insurance Plc is a successful insurance company that has been operating in Zambia for the last ten years. The company is listed on the Lusaka Stock Exchange. Welly is the Chief Executive of the company, a position he has held since the incorporation of the company. The success of the company is largely attributed to Welly's good management style and this is evidenced by the share price which has been rising yearly.

Three months before the company's yearend, Tiyese the Chairman of the Board of Directors of Risk Insurance resigned because of misunderstandings he had with the rest of the board. At an emergency board meeting soon after the resignation of Tiyese, the board appointed Goma, one of the senior independent non-executive directors, to act as board chairman to the end of the current financial year. At the Annual General Meeting, the current board recommended to the members that Welly be appointed Board Chairman in addition to his current responsibility as Chief Executive. The members endorsed the proposal and they were generally pleased because of the way Welly has run the company since its inception. It was agreed at the Annual General Meeting that an audit committee should be put in place in order to enhance the effectiveness of the Board of Directors.

Required

1. Discuss the role that the board of directors of Risk Insurance is supposed to play in the running of the company.  

**(3 marks)**
2. Discuss the appointment of Welly as board chairman and chief executive of Risk Insurance.

(5 marks)

3. In relation to Risk Insurance Plc, give five examples of stakeholders of the company and briefly explain the interests they have in the company.

(5 marks)

4. Describe the composition of the audit committee and explain the benefits to a company such as Risk Insurance of having an audit committee.

(7 marks)

**(Total 20 marks)**

#### **Question 4**

- (a) You are the partner responsible for the audit of Tembo Co, for the year ended 30 April 20Y0. The final audit has been completed and you have asked the audit manager to draft the auditor's report. The manager is aware that there is guidance for auditors relating to auditor's reports in ISA 706 (Revised) Emphasis of matter paragraphs and other matter paragraphs in the independent auditor's report. The manager has asked for your assistance in this matter.

##### **Required**

- i. Define an 'Emphasis of Matter paragraph' and explain, providing examples, the use of such a paragraph. (6 marks)
- ii. Define an 'Other Matter paragraph' and explain, providing examples, the use of such a paragraph. (4 marks)

**Note. You are not required to produce draft paragraphs.**

- (b) You are the manager responsible for the audit of Collapse Co, a large client of your audit firm operating in the engineering sector. The audit work for the year ended 30 August 20Y0 is nearly complete, and you are reviewing the draft auditor's report which has been prepared by the audit senior. You are aware that Collapse Co is developing a new product, and has incurred significant research and development costs during the year, most of which have been capitalised as an intangible asset. The asset is recognised at a value of K8.8m, the total assets recognised on the draft statement of financial position are K110m, and Collapse Co has a draft profit before tax of K6.2m.

Having reviewed the audit working papers, you are also aware that management has not allowed the audit team access to the results of scientific tests and trials performed on the new drug being developed.

An extract from the draft auditor's report is shown below.

**Basis of opinion (extract)**

Evidence available to us in respect of the intangible asset capitalised was limited, because of restrictions imposed on our work by management. As a result of this we have been unable to verify the appropriateness of the amount capitalised, and we are worried that the asset may be overvalued. Because of the significance of the item, and the lack of integrity shown by management, we have been unable to form a view on the financial statements as a whole.

**Opinion (extract):**

Disclaimer on view given by financial statements

Because of the lack of evidence that we could gain over the intangible asset, we are unable to form an opinion as to whether the financial statements are properly prepared in accordance with the relevant financial reporting framework.

- (i) Critically appraise the draft auditor's report of Collapse Co for the year ended 30 August 20Y0, prepared by the audit senior;

**Note.** You are **not** required to re-draft the extracts from the auditor's report.

**(10 marks)**

**(Total 20 Marks)**

**Question 5**

(a). Management is responsible for putting in place adequate controls in an organization to enable it achieve its objectives. The internal audit department is one of the controls that managements in most large organizations put in place. Internal auditors are employees of the organization and as such their objectivity in the conduct of their work is brought into question. There are different views as to the reporting lines of the internal audit department. It is becoming common for entities to outsource internal audit services. Most external audit firms do offer internal audit services in addition to assurance services.

**Required**

- i. Explain, with reasons, why the internal audit department should or should not report to the following in the organization:
  - The board of directors **(3 marks)**
  - The Financial Controller **(2 marks)**
- ii. Discuss the potential problems of the same audit firm offering assurance services and also internal audit services clearly explaining how they can be overcome.

**(5 marks)**
- iii. Explain the advantages and disadvantages to a company of outsourcing internal audit services



**(5 marks)**

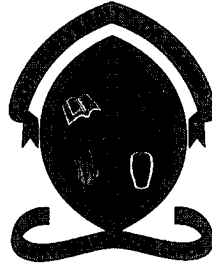
**(b).** ISA 500 Audit evidence requires auditors to design and perform audit procedures that are appropriate in the circumstances for the purposes of obtaining sufficient appropriate audit evidence.

**Required**

Discuss the importance of the evidence that the auditor gathers during the course of the audit and explain the meaning of sufficient appropriate audit evidence.

**(5 marks)**

**(Total 20 marks)**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**Sessional Examination**

**Wednesday 26<sup>th</sup> January 2022**

### **BAF 4110 INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT**

**Instructions**

Time Allowed: 3 hours

There are five (5) Questions in the Examination Paper

Attempt a total of four (4) questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**QUESTION 1**

- (a) Explain the difference between the financial and credit systems (6 marks)
- (b) Explain the main function of the financial system (4 marks)
- (c) Explain the major classification of financial markets (10 marks)
- (d) Suppose Mr Mulenga borrows K50,000 for 36 months payable monthly at the annual interest of 24%. Calculate the monthly loan repayment (5 marks)
- (TOTAL 25 MARKS)**

**QUESTION 2**

- (a) Describe how you would go about constructing an optimal portfolio according to the Security Market Line and the Capital Market Line (15 marks)
- (b) Calculate the expected return and risk for a two share portfolio formed by combining equal proportions of X Ltd and Y Ltd stock in the table below: (10 marks)

STATE	PROBABILITY	RETURN ON INVESTMENT (%)		
		X Ltd	Y Ltd	Z Ltd
Normal	0.25	24	28	4
Boom	0.50	12	12	8
Recession	0.25	0	4	28

**(TOTAL 25 MARKS)**

**QUESTION 3**

- (a) Define a company's dividend policy (4 marks)
- (b) Explain the theories that discuss the dividend policy (8 marks)
- (c) Explain the main difference between a company's dividend policy and retention policy (8 marks)
- (d) Using and an appropriate diagram, show how a bullish trend looks like in technical analysis (5 marks)

**(TOTAL 25 MARKS)**

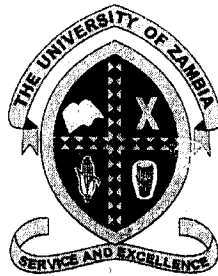
#### **QUESTION 4**

- (a) Briefly explain Portfolio management **(4marks)**
  - (b) Explain the two main types of Portfolio management **(8marks)**
  - (c) Explain market timing with regards to active portfolio management **(7 marks)**
  - (d) Describe the main types of indicators that can help investors make forecasts with regards to market returns on their stock **(6 marks)**
- (TOTAL 25 MARKS)**

#### **QUESTION 5**

- (a) Explain Fundamental security analysis **(5 marks)**
  - (b) Explain the main indicators that can be used to perform a quantitative company analysis **(10 marks)**
  - (c) Describe with the help of an appropriate graph how an investor can make a decision whether to invest in a security or not from the perspective of analyzing the industry of the security's issuer **(10 marks)**
- (TOTAL 25 MARKS)**

**The End**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Sessional Examination  
WEDNESDAY 15 SEPTEMBER 2021**

**BAF4210 – FINANCIAL RISK MANAGEMENT**

**Information for Candidates**

1. Time Allowed: **3 hours**
2. Total Marks: 100
3. Special Requirements: - A non-programmable scientific calculator

**Instructions to candidates**

1. Answer QUESTION ONE and choose ANY THREE other questions
2. Start the answer to each full question on a fresh page of the answer booklet.
3. Questions may be written in any order, but must be legibly numbered.
4. Write neatly and legibly, showing ALL your workings where necessary

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**Question One [Total 40 Marks] – COMPULSORY**

Over quite some time, the finance industry witnessed many significant transformations due to advancements in technologies, business model transformations, changing regulatory standards, and many other external and internal factors. Today, the banking industry has been tremendously changing the lives of ordinary people. The banks have become much more advanced, and the security aspect has been improved to a large extent.

However, with the increase in growth of the banks, banking operations have become much more complicated. The risks involved with the adoption of disruptive technologies called for the change in regulatory environments and business procedures. Even if we talk about history, banks have suffered significant losses due to the shift in customer behaviour patterns, the introduction of new technologies, changes in international policies, and so on. Hence, it's vital to discuss the significant risks involved in the finance industry that are majorly faced by all the banks.

Source: <https://www.matellio.com/blog/10-major-risks-faced-banks-2020/>

(a) List and define any EIGHT top risks faced by a typical financial institution in year 2021 and describe how each risk arise and also how it can be managed. [24 marks]

(b) Evaluate the ability of the newly established Basel or Solvency [choose ONE] regulations to eliminate future bank/insurer failures. [16 marks]

**Question Two [Total 20 Marks]**

(a) Define stress-testing and outline the key inputs for such an exercise for a typical insurance company. [8 marks]

(b) Describe the meaning and applications of each of the following terms for a credit portfolio of a typical banking institution in Tanzania.

(i) Gap analysis [8 marks]

(ii) credit default swap (CDS) [4 marks]

**Question Three [Total 20 Marks]**

The following table presents income for C&L bank with an established Banc assurance, the regulator has proposed that the bank split the capital calculation using the ratio 70:30 with 70% of the gross income over the past years being subject to Bank capital regulation while the remaining 30% is treated as insurance income.

Gross Income (in 000)		
Year 1	Year 2	Year 3
2550	3000	2000

You are given that:

Alpha = 15%

NL = 2500 and

$ORCI = 2\% \{ \max(GP_1, NL) + \max(0, |GP_1 - GP_0| - 0.2 * GP_0) \}$

- (i) Determine the required operational risk capital charge for DTC bank under the basic indicator approach [4 marks]
- (ii) Calculate the operational risk capital charge for ORNCI for year 2 under solvency II. Comment on your results. [6 marks]
- (iii) Outline the key components of the Business Line Event type matrix for a banking conglomerate. [5 marks]
- (iv) Describe the generic procedures for undertaking the advanced measurement approach for determining operational risk charge the C&L bank. [5 marks]

**Question Four [Total 20 Marks]**

We have managed our portfolios through a range of different crises since 1974. Over the last 20 years, the dotcom collapse in 2001/02, the global financial crisis of 2007/08 and Nenegate in December 2015 stand out. However, the speed of the current decline in markets is comparable to the Great Depression of 1929 – unprecedented in our lifetime. Markets have fallen around 30% globally, and there have been very few places to hide, other than dollar cash. Risk and opportunity abound.

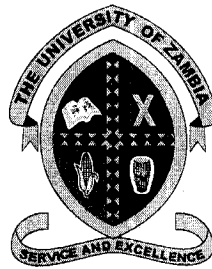
With reference to banking and insurance operations and regulations, use the above extract to answer the following questions.

- (i) Describe how senior management oversight has been implemented under Basel II for market, credit and operational risk in the aftermath of any two bank failures. [15 marks]
- (ii) Outline the suitability of each of the two main approaches to modelling market volatility during the pandemic. [5 marks]

**Question Five [Total 20 Marks]**

- (a) Define of liquidity risk and highlight its relationships with other financial risks. [8 marks]
- (b) Describe the main approaches to credit risk assessment and measurement. [12 marks]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*\*



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Supplementary/Deferred Examination  
FRIDAY 3 DECEMBER 2021**

**BAF4210 – FINANCIAL RISK MANAGEMENT**

**Information for Candidates**

1. Time Allowed: **3 hours**
2. Total Marks: 100
3. Special Requirements: - A non-programmable scientific calculator

**Instructions to candidates**

1. Answer QUESTION ONE and choose ANY THREE other questions
2. Start the answer to each full question on a fresh page of the answer booklet.
3. Questions may be written in any order, but must be legibly numbered.
4. Write neatly and legibly, showing ALL your workings were necessary

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



**Question One [Total 40 Marks] – COMPULSORY**

(a) Give an acceptable definition for the three major risks faced by a banking institution.

[6 marks]

(b) Outline how operational risk may interact with any four other banking risks that may be made worse by OR.

[7 marks]

(c) The failure of a large company in a neighbouring country has caused the regulator in Zambia to investigate potential sources of contagion.

(i) Explain why the regulator is concerned with contagion.

[3 marks]

(ii) Describe four possible sources of systemic risk to the local banking sector.

[4 marks]

(d) Using data in the next Table, determine the required operational risk capital charge for DTC bank under the following approaches.

(i) Basic indicator approach

[4 marks]

(ii) Standardised approach

[6 marks]

Business line	Beta (%)	Gross Income (in millions)		
		Year 1	Year 2	Year 3
Corporate Finance	18	255	300	200
Trading and Sales	18	100	-70	-80
Retail Banking	12	500	200	-300
Commercial Banking	15	400	300	420
Payments and Settlement	18	300	350	370
Agency Services	15	-75	-50	-40
Asset management	12	50	-100	-20
Retail Brokerage	12	150	100	200

(i) Outline the key components of the Business Line Event type matrix for a banking conglomerate. [5 marks]

(iv) Describe the generic procedures for undertaking the advanced measurement approach for determining operational risk charge the C&L bank. [5 marks]

**Question Two [Total 20 Marks]**

(a) Define stress-testing and outline the key inputs for such an exercise for a typical insurance company. [8 marks]

(b) Describe the meaning and applications of each of the following terms for a credit portfolio of a typical banking institution in Tanzania.

(i) Gap analysis [8 marks]

(ii) credit default swap (CDS) [4 marks]

**Question Three [Total 20 Marks]**

(a) Give a summary outline of the reasons for the developments in bank regulation from Basel I to Basel III [9 marks]

(b) Discuss which of the three versions you adjudge to be the best for Zambia. [6 marks]

(c) The following table presents income for C&L bank with an established Banc assurance, the regulator has proposed that the bank split the capital calculation using the ratio 70:30 with 70% of the gross income over the past years being subject to Bank capital regulation while the remaining 30% is treated as insurance income.

Gross Income (in 000)		
Year 1	Year 2	Year 3
2550	3000	2000

You are given that:

Alpha = 15%

NL = 2500 and

$ORCI = 2\% * \{ \max(GP_1, NL) + \max(0, |GP_1 - GP_0| - 0.2 * GP_0) \}$

Calculate the operational risk capital charge for ORNCI for year 2 under solvency II. Comment on your results. [5 marks]

**Question Four [Total 20 Marks]**

- (a) Outline Solvency II's mandatory 3 pillar framework. [9 marks]
- (b) Describe the own risk solvency assessment process under Solvency II. [6 marks]
- (c) Explain any two challenges of quantitative risk management [5 marks]

**Question Five [Total 20 Marks]**

- (a) Define of liquidity risk and highlight its relationships with other financial risks. [8 marks]
- (b) Describe the main approaches to credit risk assessment and measurement. [12 marks]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*\*

## BAF4210 – FINANCIAL RISK MANAGEMENT

**Question One [Total 25 Marks] – COMPULSORY**

(i) Give any two acceptable definitions of operational risk. [4 marks]

(ii) The following table presents income for DTC bank.

Business line	Beta (%)	Gross Income (in millions)		
		Year 1	Year 2	Year 3
Corporate Finance	18	255	300	200
Trading and Sales	18	100	-70	-80
Retail Banking	12	500	200	-300
Commercial Banking	15	400	300	420
Payments and Settlement	18	300	350	370
Agency Services	15	-75	-50	-40
Asset management	12	50	-100	-20
Retail Brokerage	12	150	100	200

Determine the required operational risk capital charge for DTC bank under the following approaches.

(a) Basic indicator approach [6 marks]

(b) Standardised approach [9 marks]

(iii) Outline the requirements and steps in using the advanced measurement approach by DTC bank. [7 marks]

**Question Two [Total 25 Marks]**

Describe the nature and measurement methodologies for credit risk and outline the Basel II framework guidelines for best practices for credit risk management. [25 marks]

**Question Three [Total 25 Marks]**

We have managed our portfolios through a range of different crises since 1974. Over the last 20 years, the dotcom collapse in 2001/02, the global financial crisis of 2007/08 and Nenegate in December 2015 stand out. However, the speed of the current decline in markets is comparable to the Great Depression of 1929 – unprecedented in our lifetime. Markets have fallen around 30% globally, and there have been very few places to hide, other than dollar cash. Risk and opportunity abound.

With reference to banking and insurance operations and regulations, use the above extract to answer the following questions.

(i) Describe how any three ways of managing risk could have been used to manage the market risks arising from the COVID-19 pandemic. [10 marks]

(ii) Outline the suitability of each of the two main approaches to modelling market volatility during the pandemic. [5 marks]

(iii) Outline how stress testing could have enhanced the level of preparedness for the pandemic effects. [10 marks]

**Question Four [Total 25 Marks]**

(i) COVID-19 impact on bank liquidity risk management and response In response to the recent adverse market activity, the Federal Reserve Board taken by governments and businesses ... capital and liquidity buffers that banks now have in place were designed to be available sources of capital and liquidity to support the economy during adverse situations.

Source: <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/regulatory/covid-regulators-response.pdf>

(a) Define of liquidity risk and highlight its relationships with other financial risks. [8 marks]

(b) Outline how a typical banking institution may prudently assess and manage its exposure to liquidity risk. [8 marks]

(ii) Outline the relevance of each of the pillars and regulations of **either** Basel II/III or Solvency II [choose one] in managing the current pandemic risks. [9 marks]

**Question Five [Total 25 Marks]**

(i) Describe the theories of the term structure of interest rates. [6 marks]

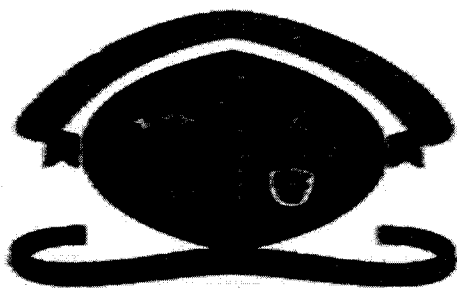
(ii) Describe the following in relation to interest rate risk management.

(a) Gap Analysis [7 marks]

(b) Three principals for establishing a conducive interest rate risk management environment. [6 marks]

(c) Three principals for operating a sound interest rate management process [6 marks]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*\*



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS STUDIES**

**BAF4211: FINANCIAL MARKETS AND DERIVATIVES**

**JANUARY 2022 FINAL EXAMINATIONS**

**MONDAY, 24<sup>th</sup> JANUARY 2022**

**TIME: 09:00 – 12:00**

**INSTRUCTIONS TO CANDIDATES**

1. This paper is divided into TWO sections:

**Section A:** Two (2) Compulsory Questions.

**Section B:** Three (3) Optional Questions. Attempt any two (2) questions.

2. Enter your student number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
3. Do **NOT** write in pencil (except for graphs and diagrams).
4. 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.
5. Formulae, Present Value, Annuity and normal distribution tables are attached at the end of the question paper.
6. The Total Marks are **100**

**SECTION A: ATTEMPT ALL THE TWO (2) QUESTIONS FROM THIS SECTION.**

**QUESTION 1**

(a) The Zambian kwacha experienced major foreign exchange rate fluctuations in 2021, substantially losing some of its value. The volatility has immensely affected, Nipano Tuli (NT), a subsidiary of an international company whose reporting currency is the US dollar. The company imports its raw materials from China and manufactures explosives in Chibombo (Zambia) mostly for local and some export markets within the SADC region.

**Required:**

- (i) Explain what is meant by transaction risk, translation risk and economic risk. (9 marks)
  - (ii) Briefly explain **four (4)** derivative methods that NT could use to manage risks arising from granting credit to foreign customers. (12 marks)
- (b) A year ago, the NT took out a fixed-interest kwacha loan when interest rates were relatively lower compared to dollar interest rates. A downturn in mining economic activity over the year has increased kwacha interest rates while dollar interest rates have remained relatively stable. The company CFO has decided to pay – off an outstanding loan amount of ZMW20 million in six months’ time and will borrow any cash to use in hedging currency risk from its parent company at prevailing commercial rates.

**Exchange rates are as follows:**

Time	ZMW/\$
Spot rate	16.90 – 17.05
Six-month forward rate	17.40 – 17.57

**Annual interest rates that are available to NT are:**

	Borrow	Deposit
Kwacha interest rates	30.0%	22.0%
Dollar interest rates	14.0%	13.5%

**Required:**

- (i) Determine whether a forward market hedge or a money market hedge should be used to hedge the loan repayment of ZMW20 million in six months’ time. (9 marks)
- [Total = 30 marks]**



## **QUESTION 2**

The International Monetary Fund (IMF) and the Zambian government on Friday, December 10<sup>th</sup>, 2021 reached a staff level agreement on a \$1.4 billion, three-year Extended Credit Facility (ECF) for 2022-2025 which will be in addition to the US\$1.3 billion SDR allocation that was received in August 2021 to help restore macro-economic stability and provide the foundation for an inclusive economic recovery. However, there has been mixed media commentators' reactions to the pursuit of this IMF program with others welcoming the deal while others perceiving it as punishment to the Zambian people. Some sections of society are demanding some recent success stories where an IMF Funded Programme yielded success beyond the standard macro-economic measures, and more from the perspective of the wider poor population and how such a program improved the lives of the poor? While others call it a spade a spade by saying with or without the IMF program, Zambians will have to pay the price. Are Zambians ready to pay the price with or without the IMF? **In view of this context, as a finance analyst, elucidate the arguments for and against the IMF program and provide a well thought out and methodical recommendation on the way forward.**

**[Total = 20 marks]**

## **QUESTION 2**

The International Monetary Fund (IMF) and the Zambian government on Friday, December 10<sup>th</sup>, 2021 reached a staff level agreement on a \$1.4 billion, three-year Extended Credit Facility (ECF) for 2022-2025 which will be in addition to the US\$1.3 billion SDR allocation that was received in August 2021 to help restore macro-economic stability and provide the foundation for an inclusive economic recovery. However, there has been mixed media commentators' reactions to the pursuit of this IMF program with others welcoming the deal while others perceiving it as punishment to the Zambian people. Some sections of society are demanding some recent success stories where an IMF Funded Programme yielded success beyond the standard macro-economic measures, and more from the perspective of the wider poor population and how such a program improved the lives of the poor? While others call it a spade a spade by saying with or without the IMF program, Zambians will have to pay the price. Are Zambians ready to pay the price with or without the IMF? **In view of this context, as a finance analyst, elucidate the arguments for and against the IMF program and provide a well thought out and methodical recommendation on the way forward.**

**[Total = 20 marks]**

presented by the Minister of Finance. The upside risks to the inflation outlook included the possible increase in fuel pump prices and electricity tariffs necessary to restore fiscal sustainability, as well as the predicted fourth wave of COVID-19, which could disrupt supply chains and trigger price increases. Further, effective implementation of fiscal reforms will significantly complement the achievement of a low and stable inflation objective.

**Required:**

- (a) Explain to Mr. Bikiloni in Kalingalinga the implication of this adjustment on the economy and how it would affect him personally. (10 marks)
- (b) Identify and elaborate on the disconnects between the monetary policy and fiscal policy with specific reference to the MPC of November 2021 as issued by the BoZ and the budget speech as delivered by the Minister of Finance and National Planning in October 2021 and suggest possible ways of addressing them. (8 marks)
- (c) Identify and elaborate on the limitations of monetary policy and recommend measures of reducing them. (7 marks)

**[25 marks]**

**QUESTION 5**

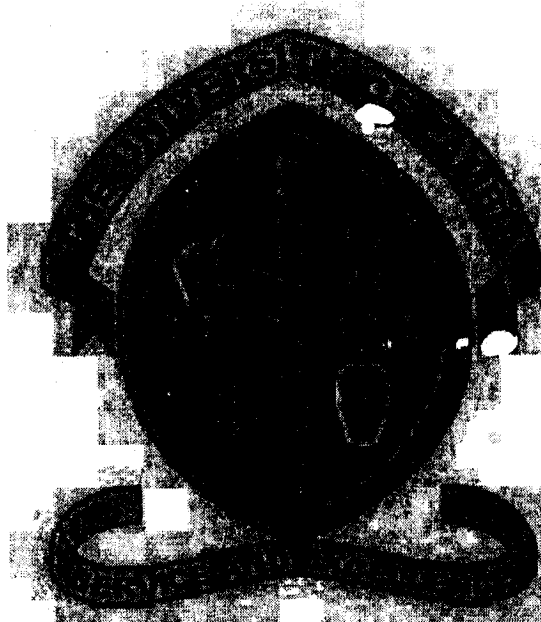
In many market economies, Zambia inclusive, the private sector is the key engine or driver of economic growth. The aim of the private businesses is to maximize profits. However, this may come at a cost to the environment. Firms do business while the governments' main role is to create an enabling environment for the private sector to flourish.

**Required:**

- (i) Discuss the statement by the former president of the Republic of Zambia Dr. Fredrick T.J Chiluba that "it is not government business to be in business." (9 marks)
- (ii) Identify and elaborate on the two (2) key challenges the Government Republic of Zambia faces to support a private sector led economic growth. (8 marks)
- (iii) Suggest two (2) recommendations that could be put in place to address the challenges identified in (ii). (8 marks)

**[Total = 25 marks]**

**END OF PAPER**



## GRADUATE SCHOOL OF BUSINESS

### BAF 4231 ADVANCED FINANCIAL REPORTING – 2021 Semester 1 Sessional Examinations

#### Instructions

1. Time : 09hrs – 12hrs                      Date: 9<sup>TH</sup> September 2021
2. There are Seven (7) questions in this paper, Section A is compulsory, and you are required to attempt any other three questions in section B.
3. Note that **ONLY** the **first five** questions answered will be considered and no marks will be awarded for any additional question(s) attempted beyond the required five questions.
4. Marks for each question are indicated in the brackets.
5. **Duration:** 3 hours
6. Make sure that presentation of your answers is as legible as possible as the examiner will not award marks for illegible answers.

## SECTION A: COMPULSORY

### QUESTION ONE

Mantas Brass Ltd statement of profit or loss for the year 31 December 2020 and statement of financial position at 31 December 2020 were as follows:

#### MANTAS BRASS LTD

#### STATEMENT OF PROFITORLOSS FOR THE YEAR ENDED 31 DECEMBER 2020

	K'000	K'000
Sales		720
Raw materials consumed	70	
Staff costs	94	
Depreciation	118	
Loss on disposal of non-current assets	18	
		(300)
Operating profit		420
Interest payable		28
Profit before tax		392
Taxation		(124)
Profit for the year		268
<b>MANTAS BRASS LTD</b>		
<b>STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER</b>		
	2020	2021
	K'000	K'000
Non-current assets		
Cost	1,596	1,560
Depreciation	(318)	(224)
	1,278	1,336
Current assets		
Inventory	24	20
Trade receivables	76	58
Bank	48	56
	1,426	1,470
Equity and Liabilities		
Equity		
Share capital	360	340
Share premium	36	24
Retained earnings	716	514
	1,112	878
Non –current liabilities		
Long –term loans	200	500
Current liabilities		
Trade payables	12	6
Taxation	102	86
Total Equity and Liabilities	1,426	1,470

Dividend paid were K66, 000

During the year, the company paid K90, 000 for a new piece of machinery.

**Required:**

- (a) Prepare a statement of cash flows for Mantra Brass for the year ended 31 december 2020, in accordance with the requirements of IAS 7, using the indirect method. [15 marks]
- (b) Explain any five (5) limitations of a cash flow statements (5 marks)
- [20 marks]

**QUESTION TWO**

Zebra plc. held shares in two companies, Impala and Tiger , for a number of years. As at 31 December 2019, they have the following statements of financial position:

	Lion	Impala	Tiger
	K'000	K'000	K'000
Property, plant and equipment	370	190	260
Investments	218	---	---
	588	190	260
Current assets:			
Inventory	160	100	180
Receivables	170	90	100
Cash	<u>50</u>	<u>40</u>	<u>10</u>
	<u>968</u>	<u>420</u>	<u>550</u>
Equity and Liabilities:			
Equity			
Ordinary share capital (K1 each)	200	80	50
Share premium	100	80	30
Retained earnings	568	200	400
Current Liabilities:			
Trade payable	<u>100</u>	<u>60</u>	<u>70</u>
	<u>969</u>	<u>420</u>	<u>550</u>

You ascertain the following additional information:

1. The investments in the statement of financial position comprise solely Lion's investment in Impala (K128, 000) and in Tiger (K190, 000).

The 48,000 shares in Impala were acquired when that company had a retained earnings balance of K150, 000.

2. When Zebra acquired its shares in Impala, the fair value of Impala net assets equaled their book values with the following exceptions:

Property, plant and equipment 70,000 higher

Investments 20,000 lower (sold during the year)

Depreciation arising on fair value adjustment to non-current assets since this date is K12, 000.

3. During the year, Zebra sold inventory to Impala for K18, 000, which had ordinarily cost Zebra K10, 000. Three quarters of these inventories have subsequently been sold by Impala.

4. Goodwill is to be impaired by 10 % by 31 December 2019.

5. It is the group policy to value non-controlling interest at full (fair) value. The fair value of the non-controlling interest at acquisition was K80, 000.

**Required:** (a) Prepare a consolidated statement of financial position for the group. (15 marks)

(b) Explain any four (4) limitations of cash flow statements (5marks)

**[20 marks]**

## SECTION B

### ATTEMPT ANY THREE QUESTIONS

#### QUESTION THREE

The following information has been extracted for the books of Nyimba Limited

EXTRACTS FROM THE STATEMENTS OF PROFIT OR LOSS TO 31 December

	2019	2018
	K'000	K'000
Sales	11,200	9,750
Cost of sales	<u>(8,460)</u>	<u>(6,825)</u>
Net profit before tax	<u>465</u>	<u>320</u>

This is after the following:

Depreciation	360	280
Loss on disposal	90	60
Interest on bank overdraft	16	9
Audit fees	12	10

STATEMENT OF FINANCIAL POSITION AS AT 31 December

	2019		2018	
	K'000	K'000	K'000	K'000
<b>Assets</b>				
Non-current assets	1,890		1,430	
Current assets				
Inventory	840		480	
Receivables	1,230		1,080	
Cash	<u>80</u>		<u>120</u>	
		<u>1,950</u>		<u>1,690</u>
<b>Total assets</b>		<u>3,800</u>		<u>3,120</u>
<b>Equity and liabilities</b>				
<b>Equity</b>				
Ordinary shares	800		800	
Retained earnings	1,310		900	
<b>Current liabilities</b>				
Bank overdraft	110		80	
Payables	750		890	
Taxation	<u>30</u>		<u>20</u>	
		<u>890</u>		<u>790</u>
<b>Total equity and liabilities</b>		<u>3,800</u>		<u>3,120</u>

The following ratios are those calculated for Nyimba base on its published accounts for the previous year and also the latest industry average ratios.

Nyimba	industry
30 December	



	2019	average
ROCE	15.38%	11.50%
Profit/sales	2.9%	3.78%
Asset turnover	3.19	4.91
Current ratio	2.14	1.9
Quick ratio	1.43	1.23
Gross profit margin	30%	25.22%
Trade receivable days	30 days	39.25 days
Trade payable days	28 days	37 days
Inventory turnover (times)	7	9
Gearing	18.76 %	16.60%

**Required:**

- (a) Calculate comparable ratios (to 2 decimal places where possible) for the year ended 31 April 2019. All calculation must be shown. (10 marks)
- (b) Write a report to the board of directors analyzing the performance of Nyimba, comparing the result against the previous year and the industry average. (10 marks)

**[20 marks]**

**QUESTION FOUR**

When an employee reaches a certain age, they are required to retire and expect to be paid benefits for the past service rendered. During active service, they can either join a defined contribution benefit plan or a defined benefit plan.

Employee benefits are all forms of consideration given by an entity in exchange for services rendered by employees or on the termination of employment. The objective of IAS 19 (revised) Employee Benefits, is to prescribe the accounting and disclosure for employee benefits. The Standard requires an entity to recognise:

- (i) A liability when an employee has provided service in exchange for employee benefits to be paid in the future; and
- (ii) An expense when the entity consumes the economic benefit arising from service provided by an employee in exchange for employee benefits. ZCBC, a public listed company incorporated in Zambia, prepares its financial statements using International Financial Reporting Standards (IFRS). It operates a defined benefit pension plan for its employees. At 1 January 2017 the fair value of the pension plan assets was K3, 200,000 and the present value of the pension plan obligations was K3, 500,000. The service cost for the year ended 31 December 2018 was K750, 000. On 1 January 2017 the pension plan was amended to offer additional benefits to members resulting in past service costs of K350, 000. The relevant discount rate for the year ended 31 December 2018 was estimated at 8% and ZCBC paid K1, 050, 000 in contributions to the plan.

The pension plan paid K120, 000 to retired members in the year to 31 December 2018. At 31 December 2018 the fair value of the pension plan assets was K4, 100,000 and the present value of the pension plan obligations was K4, 300,000.

**Required:**

- (a) Distinguish between a defined contribution plan and a defined benefit plan. [10 marks]
- (b) Calculate, in accordance with IAS 19 (revised) Employee Benefits, relevant extracts of Income statement, statement of comprehensive income and statement of financial position in the books of ZCBC's pension plan: [10marks]

[20 marks]

**QUESTION FIVE**

(a) On 1 October 2011 AB LTD, a listed entity, had 8,000,000 K1.00 ordinary shares in issue. On 1 January 2012 AB LTD made a bonus issue, with 1 new ordinary share issued for every 4 held. On 1 July 2012 AB LTD issued a further 1,500,000 new K1.00 ordinary shares for K9.20 per share. The profit before tax of AB LTD for the year ended 30 September 2012 was K10, 582,000. AB LTD is subject to corporate income tax at a rate of 30% and recorded a corporate income tax expense for the period of K435, 000. In the published financial statements for the year ended 30 September 2011, the basic earnings per share figure was 108.2 cents per share. AB LTD also has a convertible instrument in issue. This was issued on 1 October 2011 and the liability component was initially recognised at K5 million. The liability is being measured at amortized cost using an effective interest rate of 6%, in accordance with IAS 39 Financial instruments: recognition and measurement. There would be an additional issue of 1,000,000 K1.00 ordinary shares, if this instrument was converted in the future.

(b) On 30 September 2012 AB LTD's K1.00 ordinary shares were trading at a price of K9.58 per share. AB LTD's main competitor had a reported price/earnings (P/E) ratio of 12.2 as at 30 September 2012.

**Required:**

(a) Calculate the amounts that will be reported in the financial statements of AB LTD for the year ended 30 September 2012, in accordance with IAS 33 Earnings per share, for:

- (i) Basic earnings per share, including comparative; and (7 marks)
- (ii) Diluted earnings per share (no comparative required). (7 marks)

(b) Calculate the P/E ratio of AB LTD as at 30 September 2012; and

- (i) Prepare comments on AB LTD's P/E ratio compared with that of its competitor as at 30 September 2012. (6 marks)

[Total: 20 marks]

## QUESTION SIX

A conceptual framework in relation to accountancy, is a statement of generally accepted theoretical principles from which the frame of reference for financial reporting. These theoretical principles provide the basis for the development of new accounting standards and the evaluation and of the evaluation of those already in use.

You work in an accounting firm and has been asked to provide a talk on the advantages and disadvantages of a conceptual framework. In addition you are required to explain the two fundamental qualitative characteristics of that enhance the usefulness of financial reports.

### Required:

- (a) Explain five (5) advantages of a conceptual framework [10 marks]
- (b) Explain two (2) fundamental and three (3) enhancing qualitative characteristics of financial reporting [10 marks]
- [20 marks]

## QUESTION SEVEN

Zonga Co group of companies acquired 80% shares in an Angolan company called Bitex Co on 1<sup>st</sup> January 2017. At 31 December 2017, the summarised financial statements of Bitex Co, prepared in that company's functional currency, the Fra, were as follows:

Statement of financial position	Fra'000
Non-current assets	4,600
Current assets	<u>4,300</u>
	<u>8,900</u>
Equity and liabilities:	
Ordinary share capital	1,000
Retained earnings	<u>4,600</u>
	5,600
Liabilities	<u>3,300</u>
	<u>8,900</u>
Statement of profit or loss	Fr'000
Revenue	6,200
Expenses	(5,200)
Profit for the year	1,000
ExchFrae rates were:	

1 January 2017

K1: Fra 9.20

31 December 2017

K1: Fra 10.60

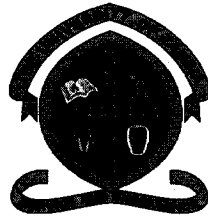
Average rate 2017

K1: Fra 9.30

**Required:**

- (a) Translate the Financial statement of Bitex Co into the kwacha. [10 marks]
  - (b) Prepare a calculation of showing an overall exchange loss or /gain. [10 marks]
- [20 marks]

**END OF PAPER**



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**SESSIONAL EXAMINATION**

**BAF 4241: INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT**

**WEDNESDAY 26<sup>TH</sup> JANUARY 2022**

**14:00HRS – 17:00HRS**

**Duration: 3 Hours**

**INSTRUCTIONS:**

1. Answer any **FOUR (4)** of the Six questions.
2. Be brief and cogent in your answers to theoretical questions.
3. Show all calculations where applicable.
4. All questions must be answered in the answer booklet only.
5. Write down the number of questions that you have answered on the cover of the examination answer booklet.
6. Marks are shown at the end of each question.

**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO**

### QUESTION ONE

- A. Discuss the two main elements of the strategy development stage of investment management process. [5

Marks]

- B. Discuss any four (4) recent developments in investments that every informed investor should pay attention to. [8 Marks]

- C. Using practical Examples, explain what is meant by the following terms in Investment and Portfolio Management:

- I. Ex-dividend date
- II. Growth stocks
- III. Value stocks
- IV. Market risk
- V. Credit risk
- VI. Operational risk

[12 Marks]

[Total Marks: 25

Marks]

### QUESTION TWO

- A. Describe how you would go about constructing an optimal portfolio according to the Modern Portfolio theory and the Capital Market Theory. [15

Marks]

- B. Calculate the expected return and risk for a two share portfolio formed by combining equal proportions of X Ltd and Y Ltd stock in the table below: [10

Marks]

STATE	PROBABILITY	RETURN ON INVESTMENT (%)		
		X Ltd	Y Ltd	Z Ltd
Normal	0.25	24	28	4

<b>Boom</b>	0.50	12	12	8
<b>Recession</b>	0.25	0	4	28

**[Total Marks: 25 Marks]**

### QUESTION THREE

A. Differentiate Chartism technique from mechanical trading technique in Technical analysis.

**[6 Marks]**

B. A prospective investor obtained the following information on XY stock:

<b>Date</b>	<b>Stock Prices (K)</b>	<b>Dividends Paid</b>
4/01/2020	61.25	
2/02/2020	52.38	0.75
4/05/2020	64.88	0.75
30/06/2020	70.50	0.75
25/10/2020	75.75	0.75
30/12/2020	71.00	

I. Calculate the simple rate of return for the year 2020. **[5 Marks]**

II. Calculate the time – weighted rate of return using both the linking and index methods for an investor with 100 shares on 1<sup>st</sup> January, 2020. **[14 Marks]**

**[Total Marks: 25 Marks]**

### QUESTION FOUR

A. How is the market value of an asset different from the intrinsic value? **[7 Marks]**

B. Stock A and B have the following probability distribution of the possible future returns:

Probability ( $P_i$ )	Stock A	Stock B
0.1	15	20
0.2	0	10
0.4	5	20
0.2	10	30
0.1	25	50

Calculate the expected rate of return for each stock. Assuming that the Capital Asset Pricing Model (CAPM) holds and stock B's beta is greater than stock A's beta by 0.25, what is the excess return on the market portfolio? [10

**Marks]**

- C. A firm just paid a dividend of K5 per share. The dividend is expected to grow at a 6% rate indefinitely. Stocks with similar risk provide a 12% expected return. If you plan to invest in this stock three years from now, estimate the price per share that you will be required to pay for this stock.

**[8 Marks]**

**[Total Marks: 25 Marks]**

## QUESTION FIVE

- A. What is the difference between backwardation and Contango of the basis in derivative valuation? [5 Marks]
- B. For a stock put option with an exercise price of K30 and option price of K4, determine the intrinsic value and draw the payoff diagrams for both the option writer and the buyer if the stock price at expiration is K40. Also comment on the most likely action of the option buyer. [8
- Marks]**
- C. A prospective investor is considering the purchase of 100 units of a 3-months, K25-strike European call option on a stock and obtains the following information:
- The stock is currently selling for 20.
  - The stock's volatility is 24%.



iii. The stock pays dividends continuously at a rate proportional to its price. The dividend yield is 3%.

iv. The continuously compounded risk-free interest rate is 5%.

If the Black Scholes model holds, calculate the price of the block of 100 options.

[12 Marks]

[Total Marks: 25

Marks]

## QUESTION SIX

Ndex Limited had the following Balance sheet and Income statement for the year ending 31<sup>st</sup> December, 2021.

Ndex Limited Profit or Loss Statement for the year ending 31<sup>st</sup> December, 2021.

---

Net sales		
Credit		K16,000,000
Cash		<u>4,000,000</u>
Total		K20,000,000
Cost and Expenses		
Cost of goods sold	K12,000,000	
Selling, general, and administrative expenses	2,200,000	
Depreciation	1,400,000	
Interest	<u>1,200,000</u>	<u>K16,800,000</u>
Net income before taxes		3,200,000
Taxes on income		1,200,000
Net income after taxes		<u>K 2,000,000</u>

Less: Dividends on preferred stock	240,000
Net income available to common shareholders	<u>K 1,760,000</u>
Add: Retained earnings at 1/1/2016	2,600,000
Subtotal	<u>K 4,360,000</u>
Less: Dividends paid on common stock	360,000
Retained earnings 31/12/2016	<u>K 4,000,000</u>

Ndex Limited Balance Sheet as at 31<sup>st</sup> December, 2021.

ASSETS		LIABILITIES AND SHAREHOLDERS' EQUITY	
Cash	K 1,000,000	Notes payable, bank	K 4,000,000
Accounts receivable	5,000,000	Accounts payable	2,000,000
Inventory	7,000,000	Accrued wages and taxes	2,000,000
Fixed assets, net	17,000,000	Long-term debt	12,000,000
		Preferred stock	4,000,000
		Common stock	2,000,000
		Retained earnings	<u>4,000,000</u>
Total assets	<u>K 30,000,000</u>	Total liabilities and shareholders' equity	<u>K30,000,000</u>

**Required:**

A. Calculate the ratios below for the year 2016.

**[20 Marks]**

RATIO	2019	2020	2021	INDUSTRY NORMS
1. Current ratio	250%	200%		225%
2. Acid-test ratio	100%	90%		110%

3. Receivable turnover	5.0×	4.5×	6.0×
4. Inventory turnover	4.0×	3.0×	4.0×
5. Long-term debt/total capitalization	35%	40%	33%
6. Gross profit margin	39%	41%	40%
7. Net profit margin	17%	15%	15%
8. Return on equity	15%	20%	20%
9. Return on investment	15%	12%	12%
10. Total asset turnover	0.9×	0.8×	1.0×
11. Interest coverage ratio	5.5×	4.5×	5.0×

B. Evaluate the position of the company using information from the table. Cite specific ratio levels and trends as evidence. [5 Marks]

[Total Marks: 25]

Marks]

## END OF EXAMINATION

### Formulae Sheet

#### Summary Measures

$$R = \frac{EMV - BMV + I}{BMV} = \frac{EMV - BMV}{BMV} + \frac{I}{BMV}$$

$$R = \prod_{t=1}^n (1 + r_t) - 1$$

$$\sigma = \sqrt{\frac{\sum_{i=1}^N (x_i - \mu)^2}{N}}$$

$$s = \sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n-1}}$$

$$CV = \left( \frac{\sigma}{\mu} \right) \cdot 100\%$$

$$\sigma_x = \sqrt{\sum \{x - E(x)\}^2 P(x)}$$

$$\sum (x_i - \bar{X})(y_i - \bar{Y})$$

#### Asset Pricing

$$E(R_p) = r + \frac{[E(R_A) - r]}{\sigma_A} \sigma_p$$

$$E(R_p) = r + \frac{[E(R_m) - r]}{\sigma_m} \sigma_p$$

$$\bar{R}_j = R_f + (\bar{R}_m - R_f) \beta_j$$

#### Bond Valuation

$$p = \sum_{t=1}^n \frac{C}{(1 + R_t)^t} + \frac{Par}{(1 + R_n)^n}$$

$$p = \frac{Par}{(1 + y)^n}$$

$$P = \frac{C}{y}$$

$$E(x) = \sum x_i P(x_i)$$

$$\sigma_{xy} = \sum [x_i - E(x)][y_j - E(y)]P(x_i, y_j)$$

$$YTM = \frac{PMT + \left(\frac{MV - V_b}{N}\right)}{\frac{2V_b + MV}{3}}$$

$$YTM = \frac{PMT + \left(\frac{CP - V_b}{N}\right)}{\frac{2V_b + CP}{3}}$$

**Stock Valuation**

### **Derivative Valuation**

$$IV_c = \max(0, S_0 - X)$$

$$IV_p = \max(0, X - S_0)$$

$$c_0 = S_0 - \frac{X}{(1+r)^t} + p_0$$

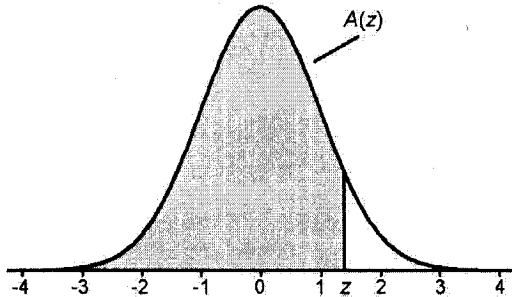
$$c = Se^{-qt}N(d_1) - Xe^{-rt}N(d_2)$$

$$p = Xe^{-rt}N(-d_2) - Se^{-qt}N(-d_1)$$

$$d_1 = \frac{\ln(S/X) + [r - q + (\sigma^2/2)]t}{\sigma\sqrt{t}}$$

$$d_2 = \frac{\ln(S/X) + [r - q - (\sigma^2/2)]t}{\sigma\sqrt{t}}$$

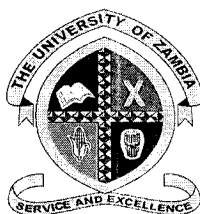
# Cumulative Standardized Normal Distribution



$A(z)$  is the integral of the standardized normal distribution from  $-\infty$  to  $z$  (in other words, the area under the curve to the left of  $z$ ). It gives the probability of a normal random variable not being more than  $z$  standard deviations above its mean. Values of  $z$  of particular importance:

$z$	$A(z)$	
1.645	0.9500	Lower limit of right 5% tail
1.960	0.9750	Lower limit of right 2.5% tail
2.326	0.9900	Lower limit of right 1% tail
2.576	0.9950	Lower limit of right 0.5% tail
3.090	0.9990	Lower limit of right 0.1% tail
3.291	0.9995	Lower limit of right 0.05% tail

$z$	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5517	0.5557	0.5596	0.5636	0.5675	0.5714	0.5753
0.2	0.5793	0.5832	0.5871	0.5910	0.5948	0.5987	0.6026	0.6064	0.6103	0.6141
0.3	0.6179	0.6217	0.6255	0.6293	0.6331	0.6368	0.6406	0.6443	0.6480	0.6517
0.4	0.6554	0.6591	0.6628	0.6664	0.6700	0.6736	0.6772	0.6808	0.6844	0.6879
0.5	0.6915	0.6950	0.6985	0.7019	0.7054	0.7088	0.7123	0.7157	0.7190	0.7224
0.6	0.7257	0.7291	0.7324	0.7357	0.7389	0.7422	0.7454	0.7486	0.7517	0.7549
0.7	0.7580	0.7611	0.7642	0.7673	0.7704	0.7734	0.7764	0.7794	0.7823	0.7852
0.8	0.7881	0.7910	0.7939	0.7967	0.7995	0.8023	0.8051	0.8078	0.8106	0.8133
0.9	0.8159	0.8186	0.8212	0.8238	0.8264	0.8289	0.8315	0.8340	0.8365	0.8389
1.0	0.8413	0.8438	0.8461	0.8485	0.8508	0.8531	0.8554	0.8577	0.8599	0.8621
1.1	0.8643	0.8665	0.8686	0.8708	0.8729	0.8749	0.8770	0.8790	0.8810	0.8830
1.2	0.8849	0.8869	0.8888	0.8907	0.8925	0.8944	0.8962	0.8980	0.8997	0.9015
1.3	0.9032	0.9049	0.9066	0.9082	0.9099	0.9115	0.9131	0.9147	0.9162	0.9177
1.4	0.9192	0.9207	0.9222	0.9236	0.9251	0.9265	0.9279	0.9292	0.9306	0.9319
1.5	0.9332	0.9345	0.9357	0.9370	0.9382	0.9394	0.9406	0.9418	0.9429	0.9441
1.6	0.9452	0.9463	0.9474	0.9484	0.9495	0.9505	0.9515	0.9525	0.9535	0.9545
1.7	0.9554	0.9564	0.9573	0.9582	0.9591	0.9599	0.9608	0.9616	0.9625	0.9633
1.8	0.9641	0.9649	0.9656	0.9664	0.9671	0.9678	0.9686	0.9693	0.9699	0.9706
1.9	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9761	0.9767
2.0	0.9772	0.9778	0.9783	0.9788	0.9793	0.9798	0.9803	0.9808	0.9812	0.9817
2.1	0.9821	0.9826	0.9830	0.9834	0.9838	0.9842	0.9846	0.9850	0.9854	0.9857
2.2	0.9861	0.9864	0.9868	0.9871	0.9875	0.9878	0.9881	0.9884	0.9887	0.9890
2.3	0.9893	0.9896	0.9898	0.9901	0.9904	0.9906	0.9909	0.9911	0.9913	0.9916
2.4	0.9918	0.9920	0.9922	0.9925	0.9927	0.9929	0.9931	0.9932	0.9934	0.9936
2.5	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952
2.6	0.9953	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964
2.7	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974
2.8	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9979	0.9980	0.9981
2.9	0.9981	0.9982	0.9982	0.9983	0.9984	0.9984	0.9985	0.9985	0.9986	0.9986
3.0	0.9987	0.9987	0.9987	0.9988	0.9988	0.9989	0.9989	0.9989	0.9990	0.9990
3.1	0.9990	0.9991	0.9991	0.9991	0.9992	0.9992	0.9992	0.9992	0.9993	0.9993
3.2	0.9993	0.9993	0.9994	0.9994	0.9994	0.9994	0.9994	0.9995	0.9995	0.9995
3.3	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9996	0.9996	0.9996	0.9997
3.4	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998
3.5	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998
3.6	0.9998	0.9998	0.9999							



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**DEFERRED AND SUPPLEMENTARY EXAMINATION**

**BAF 4241: INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT**

**MONDAY 29<sup>TH</sup> NOVEMBER 2021**

**14:00HRS – 17:00HRS**

Duration: 3 Hours

**INSTRUCTIONS:**

1. Answer any **FOUR (4)** of the FIVE questions in this paper.
2. Be brief and cogent in your answers to theoretical questions.
3. Show all calculations where applicable.
4. All questions must be answered in the answer booklet only.
5. Write down the number of questions that you have answered on the cover of the examination answer booklet.
6. Marks are shown at the end of each question.

**DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO**

### QUESTION ONE

- A. Define yield to maturity of a bond? [4 Marks]
- B. What are the advantages and disadvantages of using bonds and equity for financing a business? [6 Marks]
- C. The government through the central bank issued an 8-year bond with a par value of K20,000,000. The bond pays a coupon of K500,000. If other medium term government bonds offered a 6% return to investor, what is the value of the bond? [8 Marks]
- D. Calculate the yield to maturity of a 4 year bond with a coupon of \$20 if its current price is \$220. [7 Marks]

[Total Marks: 25 Marks]

### QUESTION TWO

- A. Explain the arbitrage pricing theory? [5 Marks]
- B. The following portfolios are being considered for investment. During the period under consideration, the risk free rate is 8%.

Portfolio	Return (%)	Beta	Standard Deviation
ABC Ltd	15	1	0.05
CAV Plc	20	1.5	0.15
ALF	10	0.6	0.07
PT Insurance	17	1.1	0.06
Market	13	1	0.04

- I. Compute the Sharpe measure for each portfolio and the market portfolio.
- II. Compute the Treynor measure for each portfolio and the market portfolio.

- III. Rank the portfolios above according to the Sharpe and Treynor measures, explaining any differences in rankings.
- IV. What are the two major requirements for a portfolio manager regarding performance?

[20 Marks]

[Total Marks: 25 Marks]

### QUESTION THREE

- A. Describe the Harry Markowitz's portfolio selection model. [10 Marks]
- B. Define Market Portfolio and explain its importance in Capital Asset Pricing Model (CAPM). [6 Marks]
- C. Distinguish between Capital Market Line (CML) and the Security Market Line (SML). [4 Marks]
- D. Discuss the two main elements of strategy development in investment management process. [5 Marks]

[Total Marks: 25 Marks]

### QUESTION FOUR

- A. Define and Describe the Efficient Market Hypothesis (EMH) in each of its three forms. [10 Marks]
- B. What does the EMH imply with respect to technical market analysis and fundamental analysis? [7 Marks]
- C. Explain how the Random Walk theory suggest that security price levels are random. [6 Marks]
- D. How can an investor earn a high rate of return in an efficient market? [2 Marks]

[Total Marks: 25 Marks]



### QUESTION FIVE

A. Explain the following terms used with the Options:

- I. In the money option.
- II. Out of the money option.
- III. At the money option.
- IV. Bermuda Style Option

[8 Marks]

B. Suppose that the stock price is K100 and the call price is K5 with a strike price of K105. If Kapembwa decides to buy the stock and write a call option on the stock, what is the profit or loss on this strategy if the stock price goes up to K110?

[8 Marks]

C. Suppose the standard deviation is  $\sigma = 30\%$ ,  $S_0 = K100$ ,  $X = K100$ ,  $r = 5\%$ ,  $q = 3\%$  and  $t = 1/2$ . Calculate the Black–Scholes call and put option prices.

[9 Marks]

[Total Marks: 25 Marks]

**END OF EXAMINATION**

## Formulae Sheet

### Summary Measures

$$R = \frac{EMV - BMV + I}{BMV} = \frac{EMV - BMV}{BMV} + \frac{I}{BMV}$$

$$R = \prod_{t=1}^n (1 + r_t) - 1$$

$$\sigma = \sqrt{\frac{\sum_{i=1}^N (x_i - \mu)^2}{N}}$$

$$s = \sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n-1}}$$

$$CV = \left( \frac{\sigma}{\mu} \right) \cdot 100\%$$

$$E(x) = \sum x_i P(x_i)$$

$$\sigma_x = \sqrt{\sum \{x - E(x)\}^2 P(x)}$$

$$\sigma_{xy} = \sum [x_i - E(x)][y_j - E(y)] P(x_i y_j)$$

$$\sigma_{x,y} = \frac{\sum (x_i - \bar{X})(y_i - \bar{Y})}{N}$$

$$\rho = \frac{\sigma_{xy}}{\sigma_x \sigma_y}$$

$$\beta = \frac{\sigma_{i,m}}{\sigma_m^2}$$

$$Z = \frac{x - \mu}{\sigma}$$

### Asset Pricing

$$E(R_p) = r + \frac{[E(R_A) - r]}{\sigma_A} \sigma_p$$

$$E(R_p) = r + \frac{[E(R_m) - r]}{\sigma_m} \sigma_p$$

$$\bar{R}_j = R_f + (\bar{R}_m - R_f) \beta_j$$

### Bond Valuation

$$p = \sum_{t=1}^n \frac{C}{(1 + R_t)^t} + \frac{Par}{(1 + R_n)^n}$$

$$p = \frac{Par}{(1 + y)^n}$$

$$P = \frac{C}{y}$$

$$YTM = \frac{PMT + \left( \frac{MV - V_b}{N} \right)}{\frac{2V_b + MV}{3}}$$

$$YTM = \frac{PMT + \left( \frac{CP - V_b}{N} \right)}{\frac{2V_b + CP}{3}}$$

### Stock Valuation

$$P_0 = \frac{D_0(1 + g)}{(k_e - g)}$$

$$P_0 = \frac{D}{k_e}$$

## Derivative Valuation

$$IV_c = \max(0, S_0 - X)$$

$$IV_p = \max(0, X - S_0)$$

$$c_0 = S_0 - \frac{X}{(1+r)^t} + p_0$$

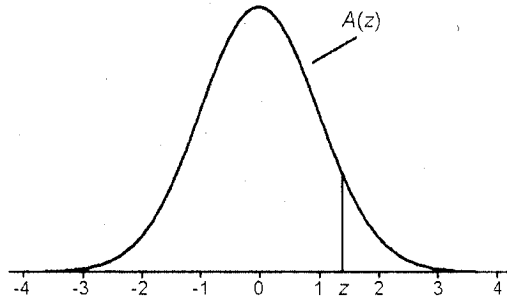
$$c = Se^{-qt}N(d_1) - Xe^{-rt}N(d_2)$$

$$p = Xe^{-rt}N(-d_2) - Se^{-qt}N(-d_1)$$

$$d_1 = \frac{\ln(S/X) + [r - q + (\sigma^2/2)]t}{\sigma\sqrt{t}}$$

$$d_2 = \frac{\ln(S/X) + [r - q - (\sigma^2/2)]t}{\sigma\sqrt{t}}$$

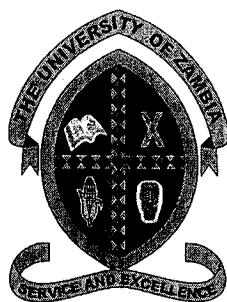
# Cumulative Standardized Normal Distribution



$A(z)$  is the integral of the standardized normal distribution from  $-\infty$  to  $z$  (in other words, the area under the curve to the left of  $z$ ). It gives the probability of a normal random variable not being more than  $z$  standard deviations above its mean. Values of  $z$  of particular importance:

$z$	$A(z)$	
1.645	0.9500	Lower limit of right 5% tail
1.960	0.9750	Lower limit of right 2.5% tail
2.326	0.9900	Lower limit of right 1% tail
2.576	0.9950	Lower limit of right 0.5% tail
3.090	0.9990	Lower limit of right 0.1% tail
3.291	0.9995	Lower limit of right 0.05% tail

$z$	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5517	0.5557	0.5596	0.5636	0.5675	0.5714	0.5753
0.2	0.5793	0.5832	0.5871	0.5910	0.5948	0.5987	0.6026	0.6064	0.6103	0.6141
0.3	0.6179	0.6217	0.6255	0.6293	0.6331	0.6368	0.6406	0.6443	0.6480	0.6517
0.4	0.6554	0.6591	0.6628	0.6664	0.6700	0.6736	0.6772	0.6808	0.6844	0.6879
0.5	0.6915	0.6950	0.6985	0.7019	0.7054	0.7088	0.7123	0.7157	0.7190	0.7224
0.6	0.7257	0.7291	0.7324	0.7357	0.7389	0.7422	0.7454	0.7486	0.7517	0.7549
0.7	0.7580	0.7611	0.7642	0.7673	0.7704	0.7734	0.7764	0.7794	0.7823	0.7852
0.8	0.7881	0.7910	0.7939	0.7967	0.7995	0.8023	0.8051	0.8078	0.8106	0.8133
0.9	0.8159	0.8186	0.8212	0.8238	0.8264	0.8289	0.8315	0.8340	0.8365	0.8389
1.0	0.8413	0.8438	0.8461	0.8485	0.8508	0.8531	0.8554	0.8577	0.8599	0.8621
1.1	0.8643	0.8665	0.8686	0.8708	0.8729	0.8749	0.8770	0.8790	0.8810	0.8830
1.2	0.8849	0.8869	0.8888	0.8907	0.8925	0.8944	0.8962	0.8980	0.8997	0.9015
1.3	0.9032	0.9049	0.9066	0.9082	0.9099	0.9115	0.9131	0.9147	0.9162	0.9177
1.4	0.9192	0.9207	0.9222	0.9236	0.9251	0.9265	0.9279	0.9292	0.9306	0.9319
1.5	0.9332	0.9345	0.9357	0.9370	0.9382	0.9394	0.9406	0.9418	0.9429	0.9441
1.6	0.9452	0.9463	0.9474	0.9484	0.9495	0.9505	0.9515	0.9525	0.9535	0.9545
1.7	0.9554	0.9564	0.9573	0.9582	0.9591	0.9599	0.9608	0.9616	0.9625	0.9633
1.8	0.9641	0.9649	0.9656	0.9664	0.9671	0.9678	0.9686	0.9693	0.9699	0.9706
1.9	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9761	0.9767
2.0	0.9772	0.9778	0.9783	0.9788	0.9793	0.9798	0.9803	0.9808	0.9812	0.9817
2.1	0.9821	0.9826	0.9830	0.9834	0.9838	0.9842	0.9846	0.9850	0.9854	0.9857
2.2	0.9861	0.9864	0.9868	0.9871	0.9875	0.9878	0.9881	0.9884	0.9887	0.9890
2.3	0.9893	0.9896	0.9898	0.9901	0.9904	0.9906	0.9909	0.9911	0.9913	0.9916
2.4	0.9918	0.9920	0.9922	0.9925	0.9927	0.9929	0.9931	0.9932	0.9934	0.9936
2.5	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952
2.6	0.9953	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964
2.7	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974
2.8	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9979	0.9980	0.9981
2.9	0.9981	0.9982	0.9982	0.9983	0.9984	0.9984	0.9985	0.9985	0.9986	0.9986
3.0	0.9987	0.9987	0.9987	0.9988	0.9988	0.9989	0.9989	0.9989	0.9990	0.9990
3.1	0.9990	0.9991	0.9991	0.9991	0.9992	0.9992	0.9992	0.9992	0.9993	0.9993
3.2	0.9993	0.9993	0.9994	0.9994	0.9994	0.9994	0.9994	0.9995	0.9995	0.9995
3.3	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9996	0.9996	0.9996	0.9997
3.4	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998
3.5	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998
3.6	0.9998	0.9998	0.9998							



## **THE UNIVERSITY OF ZAMBIA**

### **SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

#### **DEPARTMENT OF ECONOMICS**

#### **2019/2020 SESSIONAL EXAMINATION**

**DATE: MONDAY 21<sup>ST</sup> DECEMBER 2020**

#### **BBA3222: COST AND MANAGEMENT ACCOUNTING**

**EXAM TIME: 09:00 HOURS**

**VENUE: LT1**

**DURATION: THREE (3) HOURS**

**INSTRUCTIONS:**

1. The Paper has a Total Number of SIX (6) Questions Comprising Sections A and B.
  2. Answer a Total of FOUR (4) Questions.
  3. Section A is **COMPULSORY**. From Section B Answer **ANY TWO (2)** Questions.
  4. Marks Allocation Indicates the Depth of the Answer Expected.
- 

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A – COMPULSORY**

### **QUESTION ONE**

Muliokela Limited manufactures three products from the same basic components.

You are provided with the following information relating to projections for December 2018:

<b>(i) Sales</b>	<b>A</b>	<b>B</b>	<b>C</b>
Quantity	21,000	16,000	8,000
Price	K15	K6	K28
<b>(ii) Material usage per unit</b>	<b>A</b>	<b>B</b>	<b>C</b>
	<b>K</b>	<b>K</b>	<b>K</b>
Wood	4	1	10
Bought in components	3	2	6
Packing	2	1	2
<b>(iii) Stocks</b>			
<b>Finished goods in units</b>	<b>A</b>	<b>B</b>	<b>C</b>
1 December	7,000	4,000	6,000
31 December	10,000	3,000	3,000
<b>Raw materials</b>	<b>Wood</b>	<b>Bought in Components</b>	<b>Parking</b>
	<b>K</b>	<b>K</b>	<b>K</b>
1 December	32,000	31,800	21,500
31 December	44,000	41,400	11,200
<b>(iv) Wages</b>	<b>A</b>	<b>B</b>	<b>C</b>
	<b>K</b>	<b>K</b>	<b>K</b>
Per unit	3	1	5
<b>(v) Overhead per unit</b>	<b>A</b>	<b>B</b>	<b>C</b>
	<b>K</b>	<b>K</b>	<b>K</b>
Variable	2	1	2
Fixed	1	1	1

### **Required**

Prepare the following budgets for Muliokela Limited:

- |                             |           |
|-----------------------------|-----------|
| A. Sales budget             | (5 Marks) |
| B. Production budget        | (5 Marks) |
| C. Material usage budget    | (5 Marks) |
| D. Material purchase budget | (5 Marks) |
| E. Production cost budget   | (5 Marks) |

**QUESTION TWO**

An industry concern manufactures three products known as P, Q and R. Each product is started in the machining area and completed in the Finishing Shop. The direct costs associated with each product forecast for the next trading period are:

	P K	Q K	R K
Materials	18.50	15.00	22.50
Wages:			
Machining area at K5 per hour	10.00	5.00	10.00
Finishing Shop at K4 per hour	6.00	4.00	8.00
	34.50	24.00	40.50

There are machines in both departments and machine hours required to complete one of each product are:

Machine area	4	1.5	3
Finishing shop	0.5	0.5	1
Budget output in units	6,000	8,000	2,000

Fixed overheads are:

Machine area	K100,800
Finishing shop	K94,500

**Required:**

- A.** An overhead absorption rate for fixed overheads using:
- (i) A labour hour rate for each department; (5 Marks)
  - (ii) A machine hour rate for each department. (5 Marks)
- B.** Using results from (A) above, calculate the total cost of each product using:
- (i) The labour hour rate; (5 Marks)
  - (ii) The machine hour rate. (5 Marks)
- C.** Your comments to the Factory Manager who has suggested that one overhead rate for both departments would simplify matters. (5 Marks)

## SECTION B

### QUESTION THREE

A factory manufactures three components A, B and C:

During week 26, the following was recorded:

Labour Grade	Number of Employees	Rate per hour K	Individual hours worked
I	6	40.00	40
II	18	32.00	42
III	4	28.00	40
IV	1	16.00	44

Output and standard times during the same week were:

Component	Output	Standard Minutes (each)
A	444	30
B	900	54
C	480	66

The normal working week is 38 hours, overtime is paid at a premium of 50% of the normal hourly rate.

A group incentive scheme is in operation. The time is expressed as a percentage of hours worked and is shared between the group as a proportion of the hours worked by each grade.

The rate paid is 75% of the normal hourly rate.

#### Required

Calculate the total payroll showing the basic pay, overtime premium and bonus pay as separate totals for each grade of labour. (25 Marks)

### QUESTION FOUR

The standard material input required for 1,000 kg of a finished product are given below:

Material	Quantity (Kg.)	St. Rate per Kg (K)
P	450	20
Q	400	40
R	250	60
	1,100	
Standard loss	100	
Standard output	1,000	



Actual production in a period was 20,000 kg of finished product for which the actual quantities of material used and the prices paid therefore were as under:

Material	Quantity (Kg.)	Purchase price per Kg. (K)
P	10,000	19
Q	8,500	42
R	4,500	65

**Required**

Calculate the following variances:

- A. Material cost variance (5 Marks)
- B. Material price variance (5 Marks)
- C. Material usage variance (5 Marks)
- D. Material yield variance (5 Marks)
- E. Explain the application of variances in management accounting. (5 Marks)

**QUESTION FIVE**

Z Ltd had the following transactions in one of its raw materials during April 2017.

		Units	Purchase Price	Market Price
Opening		40 units	@K10 each	@K10 each
April	4 Bought	140 units	@K11 each	@K12 each
	10 Used	90 units		
	12 Bought	60 units	@K12 each	@K13 each
	13 Used	100 units		
	16 Bought	200 units	@K10 each	@K15 each
	21 Used	70 units		
	23 Used	80 units		
	26 Bought	50 units	@K12 each	@K14 each
	29 Used	60 units		

**Required**

Write up stores ledger account using the following methods of stock valuation below, and you should clearly indicate:

- (i) the total purchase costs, cost of sales, value of closing stock and
- (ii) where there are differences between purchase cost and the aggregate of cost of production and value of the closing stock, show the reconciliation.

- A. Replacement Method (13 Marks)
- B. Weighted Average (12 Marks)

**QUESTION SIX**

Shown below is an extract from the accountant’s working papers for the process cost accounts for October 2020, of the final two operations in a factory producing one particular type of industrial chemical.

Process 4			
	Kg		Kg
Opening stock	3,000	Transfers to process 5	8,000
Transfers from process 3	11,000	Loss	2,000
		Closing stock	4,000
	<u>14,000</u>		<u>14,000</u>

	Materials from process 3	Process 4 materials	Process 4 conversion costs
Costs per equivalent unit	K2.50 per kg	K1.75 per kg	K2.50 per kg
Degree of completion %:			
Opening stocks	100%	70%	60%
Losses	100%	60%	45%
Closing stocks	100%	80%	70%

Normally no losses are expected in Process 4.

The company operates the FIFO method of charging opening stock to production and, at the beginning of October 2020, the value of the opening stock in Process 4 was K16,400.

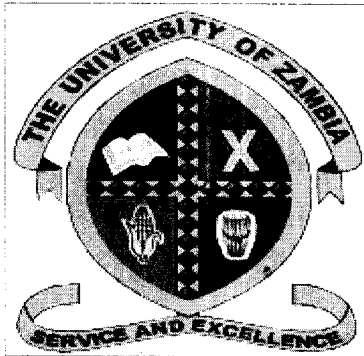
Process 5			
	Kg		Kg
Opening stock	Nil	Transfers to finished goods	7,400
Transfers from process 4	8,000	Loss	600
		Closing stock	Nil
	<u>8,000</u>		<u>14,000</u>

Process 5 additional costs – Materials K10,175; Conversion costs K18,000. Normal loss on Process 5 is 10% of input; all losses may be sold as scrap at K2 per kg.

**Required**

- (A) Calculate the total cost of the 8,000 kg of chemical transferred from process 4 to process 5 during October 2020. (10 Marks)
- (B) Calculate the total cost incurred by process 4 during October 2020 for each of the following;
- (i) Material transferred from process 3 (2 Marks)
  - (ii) Process 4 materials (2 Marks)
  - (iii) Process 4 conversion costs (2 Marks)
- (C) Prepare the Process 5 account for October 2020 (9 Marks)

***END OF EXAMINATION***



# **UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

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**COURSE: BBA 3412: MANAGERIAL ECONOMICS**  
**SUPPLEMENTARY/DEFERRED EXAMINATION**

DATE: 03-12-2021

TIME: 12:00- 14:00 HOURS

DURATION: 3 HOURS.

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### **INSTRUCTIONS**

1. WRITE YOUR NAME ON THE ATTENDANCE SLIP AND COMPUTER NUMBER ON THE ANSWER SCRIPT.
  2. SECTION A AND B IS COMPULSORY.
  3. SECTION C: CHOOSE TWO (2) QUESTIONS ONLY FROM THIS SECTION.
  4. SHOW ALL YOUR WORK WHERE NECESSARY.
-

**SECTION A: (10 marks).**

**TRUE OR FALSE STATEMENTS.**

**For each of the statements below, state whether they are true or false.**

1. Normative Economics is considered less useful compared to positive Economics due to its subjective and unverifiable nature.
2. In marginal analysis, Marginal cost can also be referred to as the slope (calculus derivative) of the total cost curve.
3. If the price elasticity of demand is -0.5 and the price increased by 20 percent, the demand must have decreased by 10 percent.
4. Inferior goods are goods whose value is less compared to that of normal goods.
5. Time factor cannot affect elastic demand of a product.
6. Four-Firm Concentration Ratio uses the sum of the market shares of all the top firms in the defined industry.
7. Advertising is one way for firms with market power to differentiate their products.
8. Zambia is a good example of a country having paperless administration since the technology in cloud storage has made the document storage easy for businesses.
9. Foreign market research is a much more complex task for Managers than domestic market research.
10. Zero economic profits are the same as zero accounting profits.

**SECTION B: (20 MARKS)**

1. Table one below shows the market price, demand and supply quantities of pears as appearing in Soweto market.

PRICE	10	12	14	16	18
QD	10	9	8	7	6
QS	6	7	8	9	10

Given the above information,

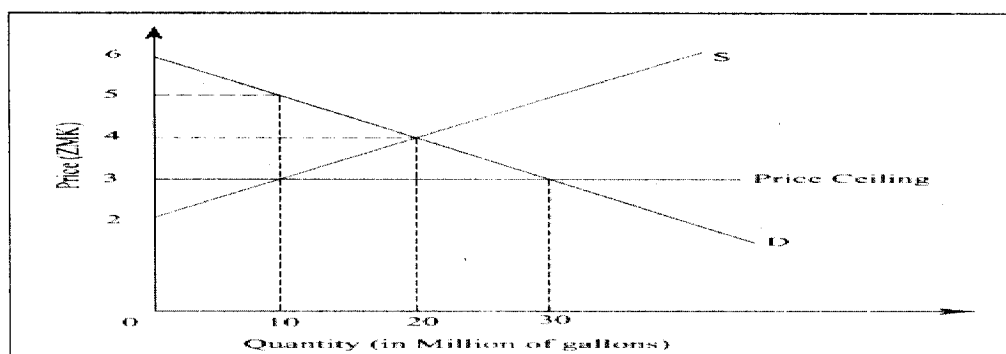
- a) Draw and label a complete graph showing the equilibrium price, quantity demanded and quantity supplied.
- b) Compute the consumer and producer surplus.
- c) Suppose the government introduces a price ceiling of k12, show graphically how this will affect the consumer and producer surplus.
- d) Compute the resultant shortage.
- e) How does the market revert to equilibrium (stability) after such a situation?

2. With the help of a well labeled diagram, show the relationship between the four measures of cost in the production process.
  - a) Identify the Break-even and Shut-down points clearly.
  - b) Why should a perfectly competitive firm continue to operate while making losses in the short run?

### SECTION C: 30 MARKS.

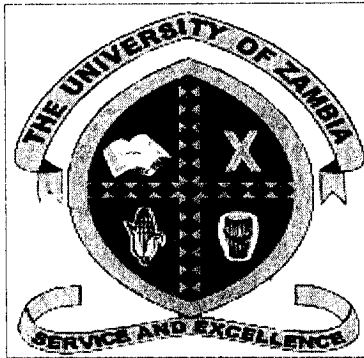
Each question is allocated 15 marks. Choose only two (2) questions from this section.

1. The graph below shows the domestic Demand and supply of cooking oil in Zambian kwacha. (15 marks)



- Given the information above, compute the:
- a) Total society welfare before the price ceiling was imposed.
  - b) The shortage of bread in million kwachas as a result of the price ceiling.
  - c) Deadweight loss in the market.
  - d) What would be the value of the new consumer surplus if the government imposed a price floor at k5?
  - e) What is the economic term for this condition that arises from a price floor?
2. Using the S-C-P paradigm, analyze the clothing industry in Zambia to assess whether a businessman of Indian origin should set up a business?
  3. Outline and explain at least four theories by the four proponents that critique the traditional profit maximization theories.
  4. Demonstrate your understanding of the market structures by providing graphical illustrations of a firm under perfect competition making profits, losses and normal profits in the short run.

**THE END.**  
**ALL THE BEST MANAGERS.**



# **UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

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**COURSE: BBA 3412: MANAGERIAL ECONOMICS**

**FINAL EXAMINATION**

DATE: 17-09-2021

DURATION: 3 HOURS.

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### **INSTRUCTIONS**

1. WRITE YOUR NAME ON THE ATTENDANCE SLIP AND COMPUTER NUMBER ON THE ANSWER SCRIPT.
  2. SECTION A AND B IS COMPULSORY.
  3. SECTION C: CHOOSE TWO (2) QUESTIONS ONLY FROM THIS SECTION.
  4. SHOW ALL YOUR WORK WHERE NECESSARY.
-

**SECTION A: (10 marks).**

**TRUE OR FALSE STATEMENTS.**

**For each of the statements below, state whether they are true or false.**

1. Normative Economics is considered less useful compared to positive Economics due to its subjective and unverifiable nature.
2. In marginal analysis, Marginal cost can also be referred to as the slope (calculus derivative) of the total cost curve.
3. If the price elasticity of demand is -0.5 and the price increased by 20 percent, the demand must have decreased by 10 percent.
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**SECTION B: (20 MARKS)**

1. Table one below shows the market price, demand and supply quantities of pears as appearing in Soweto market.

PRICE	10	12	14	16	18
QD	10	9	8	7	6
QS	6	7	8	9	10

Given the above information,

- a) Draw and label a complete graph showing the equilibrium price, quantity demanded and quantity supplied.
- b) Compute the consumer and producer surplus.
- c) Suppose the government introduces a price ceiling of k12, show graphically how this will affect the consumer and producer surplus.
- d) Compute the resultant shortage.
- e) How does the market revert to equilibrium (stability) after such a situation?



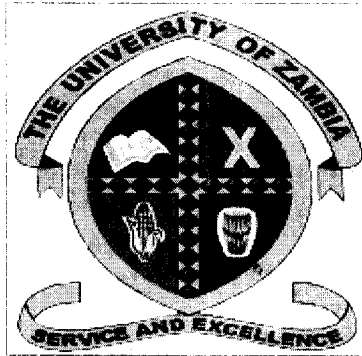
2. You are given that the best estimates of the market demand and supply for a good (in  
Zambian million kwacha) are given by  $Q_d = 10 - 2P$  and  $Q_s = 2 + 2P$ , respectively.
- a) Determine the competitive equilibrium price and quantity?
  - b) What is the new level of quantity at a price of K1.5 million?
  - c) What is the amount of the shortage in million kwacha?

**SECTION C: 30 MARKS.**

**Each question is allocated 15 marks. Choose only two (2) questions from this section.**

1. You have just secured a new position as the Regional manager of MTN. You are aware of the many problems you will face as a Managerial Economist. Outline them and provide a solution for each.
2. Using the S-C-P paradigm, analyze the clothing industry in Zambia to assess whether a businessman of Indian origin should set up a business?
3. Outline and explain at least four theories by the four proponents that critique the traditional profit maximization theories.
4. Demonstrate your understanding of the market structures by providing graphical illustrations of a firm under perfect competition making profits, losses and normal profits in the short run.

**THE END.**  
**ALL THE BEST MANAGERS.**



# **UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

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**COURSE: BBA 3412: MANAGERIAL ECONOMICS**  
**SUPPLEMENTARY/DEFERRED EXAMINATION**

DATE: 03-12-2021

TIME: 12:00- 14:00 HOURS

DURATION: 3 HOURS.

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### **INSTRUCTIONS**

1. WRITE YOUR NAME ON THE ATTENDANCE SLIP AND COMPUTER NUMBER ON THE ANSWER SCRIPT.
  2. SECTION A AND B IS COMPULSORY.
  3. SECTION C: CHOOSE TWO (2) QUESTIONS ONLY FROM THIS SECTION.
  4. SHOW ALL YOUR WORK WHERE NECESSARY.
-

**SECTION A: (10 marks).**

**TRUE OR FALSE STATEMENTS.**

**For each of the statements below, state whether they are true or false.**

1. Normative Economics is considered less useful compared to positive Economics due to its subjective and unverifiable nature.
2. In marginal analysis, Marginal cost can also be referred to as the slope (calculus derivative) of the total cost curve.
3. If the price elasticity of demand is -0.5 and the price increased by 20 percent, the demand must have decreased by 10 percent.
4. Inferior goods are goods whose value is less compared to that of normal goods.
5. Time factor cannot affect elastic demand of a product.
6. Four-Firm Concentration Ratio uses the sum of the market shares of all the top firms in the defined industry.
7. Advertising is one way for firms with market power to differentiate their products.
8. Zambia is a good example of a country having paperless administration since the technology in cloud storage has made the document storage easy for businesses.
9. Foreign market research is a much more complex task for Managers than domestic market research.
10. Zero economic profits are the same as zero accounting profits.

**SECTION B: (20 MARKS)**

1. Table one below shows the market price, demand and supply quantities of pears as appearing in Soweto market.

PRICE	10	12	14	16	18
QD	10	9	8	7	6
QS	6	7	8	9	10

Given the above information,

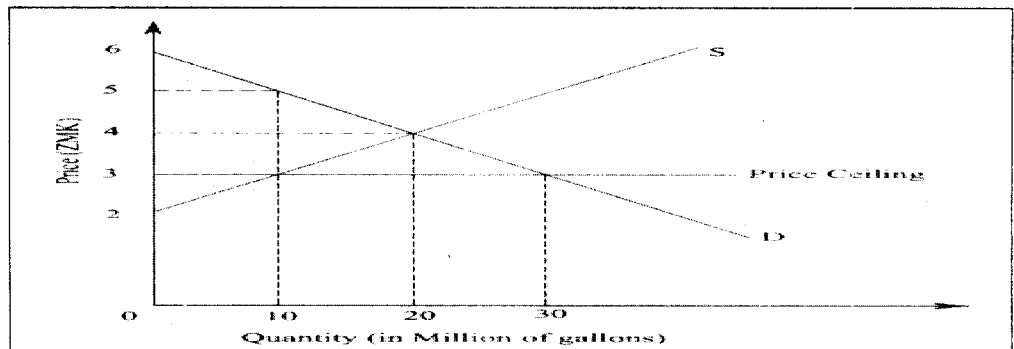
- a) Draw and label a complete graph showing the equilibrium price, quantity demanded and quantity supplied.
- b) Compute the consumer and producer surplus.
- c) Suppose the government introduces a price ceiling of k12, show graphically how this will affect the consumer and producer surplus.
- d) Compute the resultant shortage.
- e) How does the market revert to equilibrium (stability) after such a situation?

2. With the help of a well labeled diagram, show the relationship between the four measures of cost in the production process.
  - a) Identify the Break-even and Shut-down points clearly.
  - b) Why should a perfectly competitive firm continue to operate while making losses in the short run?

**SECTION C: 30 MARKS.**

Each question is allocated 15 marks. Choose only two (2) questions from this section.

1. The graph below shows the domestic Demand and supply of cooking oil in Zambian kwacha. (15 marks)

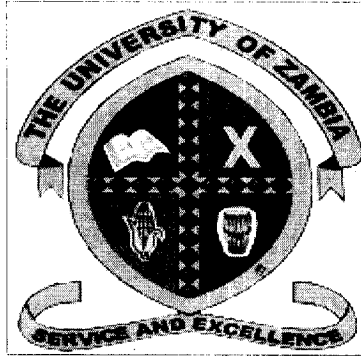


Given the information above, compute the:

- a) Total society welfare before the price ceiling was imposed.
  - b) The shortage of bread in million kwachas as a result of the price ceiling.
  - c) Deadweight loss in the market.
  - d) What would be the value of the new consumer surplus if the government imposed a price floor at k5?
  - e) What is the economic term for this condition that arises from a price floor?
2. Using the S-C-P paradigm, analyze the clothing industry in Zambia to assess whether a businessman of Indian origin should set up a business?
  3. Outline and explain at least four theories by the four proponents that critique the traditional profit maximization theories.
  4. Demonstrate your understanding of the market structures by providing graphical illustrations of a firm under perfect competition making profits, losses and normal profits in the short run.

**THE END.**

**ALL THE BEST MANAGERS.**



# **UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

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**COURSE: BBA 3412: MANAGERIAL ECONOMICS**  
**SUPPLEMENTARY/DEFERRED EXAMINATION**

DATE: 03-12-2021

TIME: 12:00- 14:00 HOURS

DURATION: 3 HOURS.

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### **INSTRUCTIONS**

1. WRITE YOUR NAME ON THE ATTENDANCE SLIP AND COMPUTER NUMBER ON THE ANSWER SCRIPT.
  2. SECTION A AND B IS COMPULSORY.
  3. SECTION C: CHOOSE TWO (2) QUESTIONS ONLY FROM THIS SECTION.
  4. SHOW ALL YOUR WORK WHERE NECESSARY.
-

**SECTION A: (10 marks).**

**TRUE OR FALSE STATEMENTS.**

**For each of the statements below, state whether they are true or false.**

1. Normative Economics is considered less useful compared to positive Economics due to its subjective and unverifiable nature.
2. In marginal analysis, Marginal cost can also be referred to as the slope (calculus derivative) of the total cost curve.
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**SECTION B: (20 MARKS)**

1. Table one below shows the market price, demand and supply quantities of pears as appearing in Soweto market:

PRICE	10	12	14	16	18
QD	10	9	8	7	6
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Given the above information,

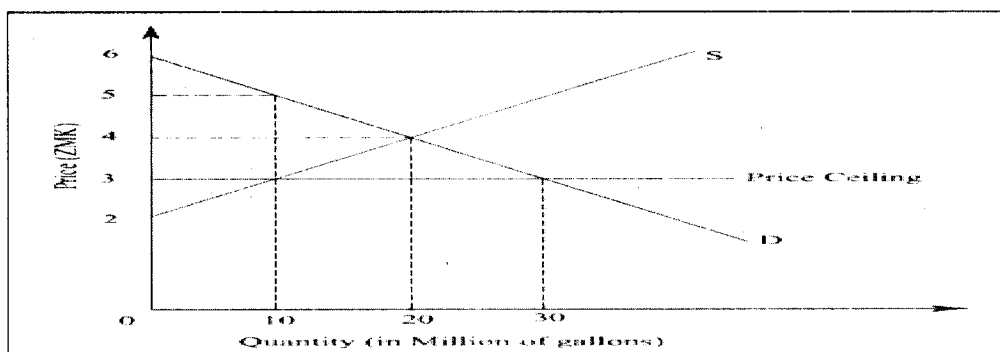
- a) Draw and label a complete graph showing the equilibrium price, quantity demanded and quantity supplied.
- b) Compute the consumer and producer surplus.
- c) Suppose the government introduces a price ceiling of k12, show graphically how this will affect the consumer and producer surplus.
- d) Compute the resultant shortage.
- e) How does the market revert to equilibrium (stability) after such a situation?

2. With the help of a well labeled diagram, show the relationship between the four measures of cost in the production process.
  - a) Identify the Break-even and Shut-down points clearly.
  - b) Why should a perfectly competitive firm continue to operate while making losses in the short run?

**SECTION C: 30 MARKS.**

Each question is allocated 15 marks. Choose only two (2) questions from this section.

1. The graph below shows the domestic Demand and supply of cooking oil in Zambia kwacha. (15 marks)



- Given the information above, compute the:
- a) Total society welfare before the price ceiling was imposed.
  - b) The shortage of bread in million kwachas as a result of the price ceiling.
  - c) Deadweight loss in the market.
  - d) What would be the value of the new consumer surplus if the government imposed a price floor at k5?
  - e) What is the economic term for this condition that arises from a price floor?
2. Using the S-C-P paradigm, analyze the clothing industry in Zambia to assess whether a businessman of Indian origin should set up a business?
  3. Outline and explain at least four theories by the four proponents that critique the traditional profit maximization theories.
  4. Demonstrate your understanding of the market structures by providing graphical illustrations of a firm under perfect competition making profits, losses and normal profits in the short run.

**THE END.  
ALL THE BEST MANAGERS.**



# **UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

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**COURSE: BBA 3412: MANAGERIAL ECONOMICS**

**FINAL EXAMINATION**

Date: 09- 04 -2021

TIME: 14 -17 HOURS

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### **INSTRUCTIONS**

1. WRITE YOUR NAME ON THE ATTENDANCE SLIP AND COMPUTER NUMBER ON THE ANSWER SCRIPT.
  2. SECTION A AND B IS COMPULSORY.
  3. SECTION C: CHOOSE TWO (2) QUESTIONS ONLY FROM THIS SECTION.
  4. SHOW ALL YOUR WORK WHERE NECESSARY.
-



**SECTION A: (10 marks).**

**TRUE OR FALSE STATEMENTS.**

For each of the statements below, state whether they are true or false.

1. Normative Economics is considered less useful compared to positive Economics due to its subjective and unverifiable nature.
2. In marginal analysis, Marginal cost can also be referred to as the slope (calculus derivative) of the total cost curve.
3. If the price elasticity of demand is -0.5 and the price increased by 20 percent, the demand must have decreased by 10 percent.
4. Inferior goods are goods whose value is less compared to that of normal goods.
5. Time factor cannot affect elastic demand of a product.
6. Four-Firm Concentration Ratio uses the sum of the market shares of all the top firms in the defined industry.
7. Advertising is one way for firms with market power to differentiate their products.
8. Zambia is a good example of a country having paperless administration since the technology in cloud storage has made the document storage easy for businesses.
9. Foreign market research is a much more complex task for Managers than domestic market research.
10. Zero economic profits is the same as zero accounting profits.

**SECTION B: (20 MARKS)**

1. Find the optimal level of worker  $L$ , and capital goods  $K$  to use in order to minimize production costs given that you want to produce 100 units. The production function is  $q = \sqrt{K \cdot L}$  and the cost function is  $TC = w \cdot L + rK$ , where the wage rate  $w = 5$  and the cost  $r = 10$ ?
2. You are given that the best estimates of the market demand and supply for a good (in Zambian million kwacha) are given by  $Q_d = 10 - 2P$  and  $Q_s = 2 + 2P$ , respectively.
  - a) Determine the competitive equilibrium price and quantity?
  - b) What is the new level of quantity at a price of K1.5 million?
  - c) What is the amount of the shortage in million kwachas?

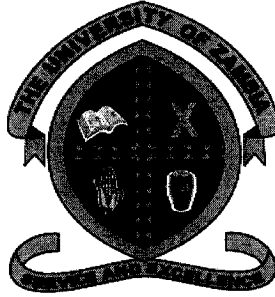
**SECTION C: 30 MARKS.**

**Each question is allocated 15 marks.**

**These are Essay Question. Answer 2 questions from this section.**

1. Discuss the optimal method for procuring inputs that have well-defined and measurable quality specifications and require highly specialized investments. What are the primary advantages and disadvantages of acquiring inputs through this means?
2. Using the S-C-P paradigm, analyze the clothing industry in Zambia to assess whether a businessman of Indian origin should set up a business?
3. Explain the factors you would consider with regards to the competition in the fast food industry, confined to the areas around the University Of Zambia premises. Use porters five- forces framework to help you in this analysis and state the outcome of your decision.
4. Outline and explain at least four theories by the four proponents that critique the traditional profit maximization theories.

**THE END.**



**UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

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**COURSE: BBA 3412: MANAGERIAL ECONOMICS**

**FINAL EXAMINATION**

**DATE: 27-01-2022**

**TIME: 12:00- 14:00 HOURS**

**DURATION: 3 HOURS.**

**INSTRUCTIONS**

- 1. WRITE YOUR NAME ON THE ATTENDANCE SLIP AND COMPUTER NUMBER ON THE ANSWER SCRIPT.**
- 2. SECTION A AND B IS COMPULSORY.**
- 3. SECTION C: CHOOSE TWO (2) QUESTIONS ONLY FROM THIS SECTION.**
- 4. SHOW ALL YOUR WORK WHERE NECESSARY.**

## **SECTION A: (10 MARKS)**

### **TRUE OR FALSE STATEMENTS.**

For each of the statements below, state whether they are true or false.

1. Profits signal to resource holders where resources are most highly valued by society.
2. Normative Economics is considered less useful compared to positive Economics due to its subjective and unverifiable nature.
3. Incentives have no effect on the performance of an organization.
4. Zero economic profits are the same as zero accounting profits.
5. Scarcity of goods reduces consumers' negotiating power as they compete for the right to those goods.
6. Inferior goods are goods whose value is less compared to that of normal goods.
7. Time factor cannot affect elastic demand of a product.
8. The role of the economic agent is to provide discipline in the market.
9. Optimal economic decisions are made at the margin (marginal analysis)
10. The value of a firm equals the present value of current and future profits (cash flows).

## **SECTION B: (20 MARKS)**

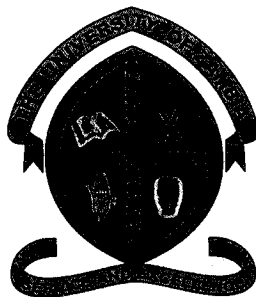
1. Differentiate the following terms.
  - a. Inferior and normal goods.
  - b. Normative and positive economics
  - c. Principle and agent
  - d. Demand and quantity demand
  - e. Marginal cost and marginal benefit.
2. In a short concise paragraph, explain why a manager needs an understanding of the following.
  - a. Goals and constraints.
  - b. Elasticity
  - c. Market interactions.
  - d. Time value of money.
  - e. Equilibrium analysis.

3. Draw and label a diagram showing a market at equilibrium interfered by
  - a. A price floor.
  - b. A price ceiling
  - c. Label the shortage
  - d. Label the surplus
  - e. How can a market revert back to equilibrium after a shortage?
  
4. You are currently running a restaurant business and you discover that there is a 20% reduction in the quantity demanded when you increase the price of samosas by 10%.
  - a. Determine the price elasticity of demand and interpret the results.
  - b. How will this affect your Total revenue based on part 1.)?
  - c. If you increased the price of mineral water, assuming you are the only supplier of mineral water in your area, how will this change affect your Total revenue?
  - d. One of your products, (Nshima is perfectly inelastic) how can you show the relationship of its quantity demanded against price on a graph?

### **SECTION C: (30 MARKS)**

Choose two questions from this section and write an essay on it. Each question is allocated 15 marks.

1. Using the S-C-P paradigm, analyze the clothing industry in Zambia to assess whether a businessman of Indian origin should set up a business?
2. Outline and explain at least four theories by the four proponents that critique the traditional profit maximization theories.
3. Demonstrate your understanding of the market structures by providing graphical illustrations of a firm under perfect competition making profits, loses and normal profits in the short run.
4. The COVID 19 Pandemic is a grave problem to most organizations as it affects the productivity of each firm. As a manager, outline measures you would put in place to ensure consistent and effective productivity in your firm/organization.
5. Outline the lessons learnt in Managerial Economics focusing on the core disciplines.



THE UNIVERSITY OF ZAMBIA  
THE GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE FINAL EXAMINATION

DATE: 24<sup>th</sup> September, 2020

**BB★ 3412: Managerial Economics**

**INSTRUCTIONS TO CANDIDATES:**

1. Answer ANY FOUR (4) Questions in this paper.
2. DURATION: 3 Hours.
3. ALL Students should have Scientific Calculators.

**QUESTION ONE****(15 marks)**

- (a) Moses spends K120,000 per year on rentals and wages for his workers. He recently quit his job at ZANACO Bank, paying a wage of 8,000 per month, in order to start operating his GYM in Kabulonga. During the first month of operations; Moses made K25,000 from membership fees and K5,000 from selling water and drinks. He paid K3,000 towards the cleaning company and also K2,000 towards utility bills.
- (i) What is his monthly accounting profit? (2.0)
  - (ii) What is his monthly economic profit? (2.0)
  - (iii) Was his decision to quit his job worthwhile? (2.0)
- (b) State and Explain the THREE (3) types of rivalry found in market transactions. (3.0)
- (c) How much would you pay for an asset which generates an income of K25,000 at the end of each of 5 years if the opportunity cost of using capital is 11 percent? (2.0)
- (d) Consider the game below and find the dominant and Nash equilibrium solutions (4.0)

	Movie	football
Movie	(3,1)	(0,0)
football	(0,0)	(1,3)

**QUESTION TWO****(15 Marks)**

- (a) The following non-linear demand function is for Television sets in Lusaka:

$$Q_x^d = P_x^{0.4} P_y^{2.5} M^{0.2}$$

- (i) Transform the demand function into its logarithmic form. (1.0)
  - (ii) What is the price elasticity of demand and the cross-price elasticity of demand? (4.0)
  - (iii) Would you consider television sets to be a normal good? Please explain. (3.0)
  - (iv) How would a 20 percent increase in M affect the demand? (2.0)
- (b) The University of Zambia is planning to host an Auction sale for some of its assets in order to fundraise for various financing needs in the University. Briefly identify and

explain the advantages and disadvantages of the types of Auctions which can be used.  
Please use a table to state the advantages and disadvantages for each type of auctions.  
(5.0)

### QUESTION THREE

(15 Marks)

(a) Consider the following demand function:

$$P = 80 - 0.25Q$$

If the firms have a constant marginal cost of 10, answer the following:

- (i) What is the perfectly competitive optimal output and price? (2.0)
  - (ii) Find the optimal price and Output assuming the firm is a monopoly. (2.0)
  - (iii) Show that a monopoly earns more profits as compared to a perfectly competitive firm? (3.0)
  - (iv) How would a firm with insignificant product differentiation compare with the solutions above? (3.0)
- (b) Two firms, A and B, are playing a price setting game in which each player has the option of setting a high or low price. If both firms set a low price, they earn only normal profits and if both set a high price, the dominant firm, firm A, earns \$30,000 while the other firm earns \$20,000. If the firms decide to use different strategies, the one which sets a high price will make losses of \$15,000 while the other will earn \$60,000 if it is firm A and \$40,000 if it is firm B which is less dominant.
- (a) Represent this game using normal form. (2.0)
  - (b) Are there any dominant strategies in this game? (2.0)
  - (c) Is the Nash equilibrium of the game equivalent to the secure strategy equilibrium? (1.0)

### QUESTION FOUR

(15 Marks)

- (a) A managerial economist has reviewed the pricing strategies used by business managers at Manda Hill shopping Mall and East park mall. Identify which pricing strategy each of the following are referring to: (10.0)
- (i) Food lover's Market charges K14 for their medium smoothie (250 mls) and K25 for the larger one (500 mls).
  - (ii) Mahak Restaurant has very good prices for main meals but charges twice as much on drinks.



- (iii) Ster Kinekor recently introduced a student rate on movie tickets. Students from UNZA and other universities pay 25% less for the movie as long as they present their valid student id card.
  - (iv) During Christmas period, Pick n Pay usually sells packages containing different types of goods at a discounted price.
  - (v) Mud Boutique is selling one of its latest dresses at different prices each particular day of the week.
  - (vi) The iStore Shop at East Park mall is selling phone accessories at almost 50% higher than market price but yet customers don't seem to mind.
  - (vii) It is very common to find oranges being sold in packs of 9 in Shoprite store. They sell for K20 in a pack while one unpacked orange will cost you K4.
  - (viii) Giordano luxury clothing shop and BBC One have placed a disclaimer at their shops that they promise to reduce their price if any other store is selling a similar quality of wear at a lower price.
  - (ix) Builders Store is a subsidiary of East Park Mall, it sells its building equipment and materials at a discounted price to East Park Mall Management whenever there is a need for expansion or rehabilitation.
  - (x) Home Essentials is selling a particular pillow set at whatever price a customer feels they can manage to pay as long as it is greater than K30.
- (b) Compare and Contrast a perfectly competitive market and a monopoly in terms of characteristics and market performance. Which market structure is better in terms of consumer and producer surplus? (5.0)

## QUESTION FIVE

(15 Marks)

- (a) An economist estimated that the cost function of a single-product firm is:

$$C(Q) = 100 + 35Q - 20Q^2 + 5Q^3$$

Based on this information, determine:

- (i) The fixed cost of producing 5 units of output. (1.0)
- (ii) The variable cost of producing 5 units of output. (1.0)
- (iii) The total cost of producing 5 units of output. (1.0)
- (iv) The average fixed cost of producing 5 units of output. (1.0)
- (v) The average total cost of producing 5 units of output. (1.0)

(vi) The marginal cost when  $Q = 5$

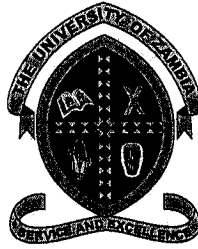
(1.0)

- (b) Appleway Industries produces apple juice and sells it in a competitive market. The firm's manager must determine how much juice to produce before he knows what the market (competitive) price will be. Economists estimate that there is a 20 percent chance the market price will be \$3 per gallon, a 50 percent chance it will be \$2 per gallon and a 30 percent chance that it be \$1 per gallon when the juice hits the market. If the firm's cost function is

$$C = 200 + 0.0005Q^2$$

- (i) What is the expected price of the juice? (2.0)
  - (ii) What are the expected profits of Appleway Industries? (2.0)
- (c) Highlight the prospects and challenges faced by managerial Economists owing to Globalization and technology computerization. (5.0)

**END OF EXAMINATION**



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

## **Undergraduate Sessional Examination**

**January 2022**

### **BBA 9125: INTERNATIONAL BUSINESS MANAGEMENT**

#### **Instructions**

Time Allowed: 3 hours

There two sections in this paper

Section A: Answer both questions

Section B: Answer any two (2) questions

You are required to answer **four (4)** questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: COMPULSORY

### **Vizio and the Market for Flat Panel TVs**

Operating sophisticated tooling in environments that must be kept absolutely clean, fabrication centers in South Korea, Taiwan, and Japan produce to exacting specifications sheets of glass twice as large as kingsize beds. From there, the glass panels travel to Mexican plants located alongside the U.S. border. There they are cut to size, combined with electronic components shipped in from Asia and the United States, assembled into finished flat panel TVs, and loaded onto trucks bound for retail stores in the United States, where consumers spend over \$35 billion a year on flat panel TVs. The underlying technology for flat panel displays was invented in the United States in the late 1960s by RCA. But after RCA and rivals Westinghouse and Xerox opted not to pursue the technology, the Japanese company Sharp made aggressive investments in flat panel displays. By the early 1990s Sharp was selling the first flat panel screens, but as the Japanese economy plunged into a decade-long recession, investment leadership shifted to South Korean companies such as Samsung. Then the 1997 Asian crisis hit Korea hard, and Taiwanese companies seized leadership.

Today, Chinese companies are starting to elbow their way into the flat panel display manufacturing business. As production for flat panel displays migrates its way around the globe to low-cost locations, there are clear winners and losers. U.S. consumers have benefited from the falling prices of flat panel TVs and are snapping them up. Efficient manufacturers have taken advantage of globally dispersed supply chains to make and sell low-cost, high-quality flat panel TVs. Foremost among these has been the California-based company Vizio, founded by a Taiwanese immigrant. In just six years, sales of Vizio flat panel TVs ballooned from nothing to over \$2 billion in 2008. In early 2009, the company was the largest provider to the U.S. market with a 21.7 percent share. Vizio, however, has fewer than 100 employees. These focus on final product design, sales, and customer service. Vizio outsources most of its engineering work, all of its manufacturing, and much of its logistics. For each of its models, Vizio assembles a team of supplier partners strung across the globe. Its 42-inch flat panel TV, for example, contains a panel from South Korea, electronic components from China, and processors from the United States, and it is assembled in Mexico. Vizio's managers scour the globe continually for the cheapest manufacturers of flat panel displays and electronic components. They sell most of their TVs to large discount retailers such as Costco and Sam's Club. Good order visibility from retailers,

coupled with tight management of global logistics, allows Vizio to turn over its inventory every three weeks, twice as fast as many of its competitors, which allows major cost savings in a business where prices are falling continually. On the other hand, the shift to flat panel TVs has caused pain in certain sectors of the economy, such as those firms that make traditional cathode ray TVs in high-cost locations. In 2006, for example, Japanese electronics manufacturer Sanyo laid off 300 employees at its U.S. factory, and Hitachi closed its TV manufacturing plant in South Carolina, laying off 200 employees. Sony and Hitachi both still make TVs, but they are flat panel TVs assembled in Mexico from components manufactured in Asia

### **Question One**

- a) Why is the manufacturing of flat panel TVs migrating to different locations around the world? Who benefits from the globalization of the flat panel display industry? Who are the losers? (15 marks)
- b) What does the example of Vizio tell you about the future of production in an increasingly integrated global economy? (5 marks)
- c) What does it tell you about the strategies that enterprises must adopt to thrive in highly competitive global markets. (10 marks)

**Total: 30 marks**

### **Question Two**

- a) What is international business? What are the primary reasons that companies engage in international business? (10 marks)
- b) Outline any five (5) characteristics of a born-global business (10 marks)

**Total: 20 marks**

## **SECTION B: ANSWER ANY TWO (2) QUESTIONS**

### **Question Three**

- a) Explain the different staffing policies available for an international HRM manager, bring out their associated advantages and disadvantages. (12 marks)
- b) What should an international business take into account when choosing a manager for its overseas operations? (8 marks)
- c) Explain why managers may fail to thrive in foreign postings. (5 marks)

**Total: 25 marks**

#### Question Four

- a) A small Canadian firm that has developed valuable new medical products using its unique biotechnology know-how is trying to decide how best to serve the European Union market. Its choices are given below. The cost of investment in manufacturing facilities will be a major one for the Canadian firm, but it is not outside its reach. If these are the firm's only options, which **ONE** would you advise it to choose? Why? (10 marks)
- Manufacture the products at home and let foreign sales agents handle marketing.
  - Manufacture the products at home and set up a wholly owned subsidiary in Europe to handle marketing.
  - Enter into an alliance with a large European pharmaceutical firm. The products would be manufactured in Europe by the 50/50 joint venture and marketed by the European firm.
- b) List any four (4) arguments in support of 'Buy' (outsourcing) decisions and any three (3) arguments in support of 'make' (in-house) decisions. (15 marks)

**Total: 25 marks**

#### Question Five

Foreign direct investment helps in accelerating the rate of economic growth of host country

- Discuss and also explain the benefits and costs of foreign direct investment on the host country. (15 marks)
- Explain the policies that governments can put in place to encourage inward flow of FDI. (10 marks)

**Total: 25 marks**

#### Question Six

You are the assistant to the CEO of a small textile firm that manufactures quality, premium-priced, stylish clothing. The CEO has decided to adopt exporting and has asked you for advice.

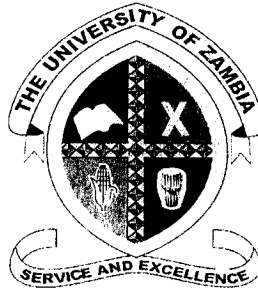
- Explain to your CEO any five (5) pitfalls of exporting. (5 marks)
- Discuss the view that standardizing the elements of the marketing mix is the way to go. (20 marks)

**Total: 25 marks**

*All the best!*

Sup

*Graduate School of Business Examinations*



**GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE**

**AUGUST 2017/FEBRUARY 2017/JULY 2016 COHORT**

**SESSIONAL EXAMINATION**

**DATE: 9<sup>TH</sup> DECEMBER, 2019**

**BBA9135: BUSINESS PLANNING AND DEVELOPMENT**

**TIME: THREE (3) HOURS**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Five (5) Questions.
  2. Answer all questions in section A & B. choose one from section C
  3. Marks Allocation Indicates the Depth of the Answer Expected.
-

## SECTION A [COMPULSORY]

Read the case study carefully and answer the question below. The question in this section is compulsory and carry 40 marks

### THE ENTREPRENEUR VERSUS THE PLANNER

A small business owner, Richard Rodrigues, met a corporate planner, Kevin Watkins, for a social drink. The two were old friends, but as they had not met up for some time, they were anxious to catch up on each other's news. Kevin was still working for a large utility company, as he had been when they last met. His work was to assist the line managers in his organization to produce regular business plans which reflected corporate goals. Richard's business, by comparison, was small and changing. He had owned a publishing company, which specialized in producing magazines for the medical profession paid for by advertising from drug companies.

'Yes, I think I was doing rather nicely in publishing when we last met', Richard commented to Kevin. 'That's all changed now of course. Generic prescribing came along and wiped out that business. Doctors have to prescribe non – branded drugs where possible now, so there's little point in the drug companies advertising their branded products to them'. 'You mean you have stopped publishing altogether?' asked Kevin. 'Didn't you see it coming and move into some other form of publishing?' 'Well, I heard about it of course, as it was being talked about well before it became policy', Richard replied. 'But I didn't think it would affect me the way it did. My advertising revenue dropped by 25 per cent, which was enough to make the publication unprofitable. I had hoped I could ride the storm, but there didn't seem much point once I was losing money. I decided to cut my losses and do something else.'

'What did you do then?' Kevin questioned. 'I decided to do something completely different. I bought a toy company, making dolls and children's games', announced Richard. 'Want to buy it? It keeps me awake at nights with its cash flow problems.' 'No thanks. Very seasonal business, I imagine. Still you would have known that before you bought it. What's been the problem?' asked Kevin.



'You're right,' said Richard, 'I did know it was a seasonal business, but I actually did a very good deal in buying it. The price was rock bottom. I didn't even have to take out any loans. It's just that so much depends on Christmas it's impossible to plan anything. My accountant checked out the reported profits and balance sheet before I bought the business, so I knew what I was getting. And the profits are there, as the previous owner said they would be. He just forgot to tell me about the cash flow. I nearly went bankrupt in the first year waiting for Christmas.'

'Didn't your business plan predict that, or at least indicate there would be some serious troughs in your cash flow?' asked Kevin. 'Like I said, I didn't need any loans, so I didn't need a business plan', said Richard. 'Well I don't want to push my own profession, but I think a business plan would have told you about these troubles in advance. But then I am biased', laughed Kevin. Richard did not seem to appreciate the joke. 'If I had to put together the sort of five – year plan you produce every time I make a decision, I'd get nowhere fast. As a matter of fact, when I found out about this toy company for sale, there was another larger organization interested. It was only by going down there the next day and making an offer on the spot that I clinched the deal. I expect your equivalent in this other company is still working on the business plans!' he retorted.

'I don't think that's fair at all', responded Kevin. 'How can you know what you're doing without some sort of plan? It doesn't have to be complicated or time consuming. And it can show how sensitive a business is to seasonal factors or more permanent changes like your last business. You know, a business plan may have helped you there too.'

'I don't think so at all', Richard said indignantly. 'What I needed then was creativity and innovation to change my business, not the straitjacket of some plan. Anyway they are only financial forecasts – crystal ball gazing. What's the point of that when you're going bust?' 'Ok, Ok, so you don't believe in planning. How about objectives? Do you believe in setting those?' asked Kevin. 'Of course I do', said Richard, 'I just don't want to spend my time writing them down, that's all.'

'Well you obviously like centralized control, at least that something you have in common with us planners', smiled Kevin.

## QUESTION ONE

- A. Kevin may have been right to claim that business plans could have helped Richard. In what ways do you think Richard could have benefited from business planning in both of his businesses? To what extent is Richards's skeptical position about the benefits of business planning correct.

**[14 Marks]**

- B. Richard claims that plans 'are only financial forecasts – crystal ball gazing'. What factors would you consider before preparing a business plan to make it a working document?

**[12**

**Marks]**

- C. According to Richard, creativity and innovation are more important than business planning. Explain why creativity and innovation are so important for business success and survival. Explain also what entrepreneurs can do to stimulate their own creativity and that of others.

**[14**

**Marks]**

**[Total: 40 Marks]**

## **SECTION B**

### **Question one**

Write short notes on the following (5marks each)

- (i) Trade gossips
- (ii) Competitive intelligence
- (iii) Effect of macroeconomics variables on the Business
- (iv) Effect of Fiscal policy on the Business

### **QUESTION TWO**

- A. Write a concise essay in which you critically examine, using appropriate examples of your choice, the significance of small scale business enterprises to the economies of nations. **[10 Marks]**
- B. What do you think an entrepreneur should do in order to avoid becoming another failure statistic? **[10 Marks]**
- C. Why is it necessary for an entrepreneur to conduct a feasibility study before launching a particular business idea **[10 Marks]**

**[Total: 30 Marks]**

## **SECTION C**

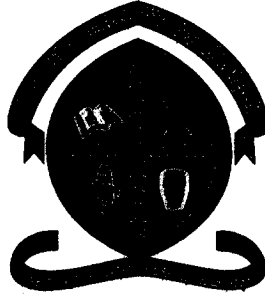
### **QUESTION ONE**

Porter developed a framework for analyzing the nature and extent of competition within an industry. Understanding the nature and strength of each the five forces within an industry assists managers in developing the competitive strategy of their organization. Explain these five forces. **[10 Marks]**

### **QUESTION TWO**

Explain what is meant by the micro environment and state at least four constituent elements of this environment and the effect on the business. **[10 Marks]**

Best wishes



**THE UNIVERSITY OF ZAMBIA  
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**FEBRUARY 2019/JULY 2018 COHORT**

**SESSIONAL EXAMINATION**

**DATE: 25<sup>TH</sup> January, 2021**

**BBA9135: BUSINESS PLANNING AND DEVELOPMENT**

**TIME: THREE (3) HOURS**

**INSTRUCTIONS:**

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## SECTION A

### THE ENTREPRENEUR VERSUS THE PLANNER

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loans. It's just that so much depends on Christmas it's impossible to plan anything. My accountant checked out the reported profits and balance sheet before I bought the business, so I knew what I was getting. And the profits are there, as the previous owner said they would be. He just forgot to tell me about the cash flow. I nearly went bankrupt in the first year waiting for Christmas.'

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'Well you obviously like centralized control, at least that something you have in common with us planners', smiled Kevin.

### **QUESTION ONE {SCENARIO BASED QUESTIONS}**

- A. The failure rate of a number business has been attributed due to poor business plan, which is not customer centric. In what ways do you think Richard could have benefited from business planning in both of his businesses? **[14 Marks]**
- B. Richard claims that plans 'are only financial forecasts – crystal ball gazing'. What factors would you consider before preparing a business plan to make it a working document? **[12 Marks]**
- C. According to Richard, creativity and innovation are more important than business planning. Explain why creativity and innovation are so important for business success and survival. Explain to Richard Using the risk management cycle, the importance of assessing risk on the business **[14 Marks]**

### **QUESTION TWO**

Write short notes on the following **[5 marks each]**

- (a) Explain the effect of monetary policy on the business.
- (b) Competitive intelligence
- (c) Provide two (2) reasons why business managers may consider forming strategic allies.
- (d) Brand personality

## **QUESTION TWO**

Porter developed a framework for analyzing the nature and extent of competition within an industry. Understanding the nature and strength of each the five forces within an industry assists managers in developing the competitive strategy of their organization. Explain these five forces.

**[20 marks]**

## **SECTION B**

### **Question One**

IOI Company in Brazil wants to set up an industry in Zambia, as a Business Planning and Development student at University of Zambia advice IOI Company on how they can brand their products to meet the needs of customers.

**[10 Marks]**

### **Question Two**

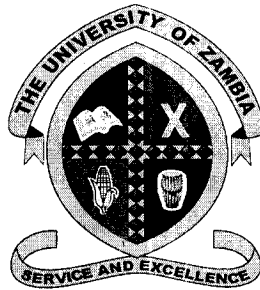
Explain why it is necessary for an entrepreneur to have a business plan before launching a particular business idea **[10 Marks]**

### **Question Three**

Write a concise essay in which you critically examine, using appropriate examples of your choice, the significance of small scale business enterprises to the economies of nations.

**[10 Marks]**





**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE**

**FEBRUARY 2019/JULY 2018 COHORT**

**SESSIONAL EXAMINATION**

**DATE: 6<sup>TH</sup> April, 2021**

**BBA9135: BUSINESS PLANNING AND DEVELOPMENT**

**TIME: THREE (3) HOURS**

**INSTRUCTIONS:**

1. Answer all questions
  2. Marks Allocation Indicates the Depth of the Answer Expected.
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## **SECTION A**

### **THE ENTREPRENEUR VERSUS THE PLANNER**

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- B. Richard claims that plans 'are only financial forecasts – crystal ball gazing'. What factors would you consider before preparing a business plan to make it a working document? **[20 Marks]**

### **SECTION B**

#### **QUESTION ONE**

- (a) Conduct an in-depth SWOT analysis for a business organization of your choice. **[12 marks]**
- (b) Discuss any four (4) key demographic variables that are relevant to business and state their likely impact on a business organization of your choice. **[8 marks]**

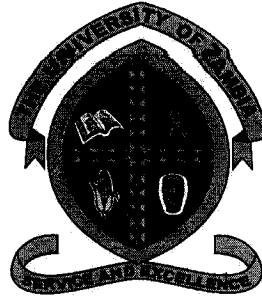
**[TOTAL: 20 MARKS]**

#### **QUESTION TWO**

- (b) Distinguish between the terms Fiscal policy and Monetary policy. **[5 marks]**
- (b) Explain factors that show that "the freedom of private enterprises is greatest in the free market economy". **[10 Marks]**
- (c) Explain what is meant by the micro environment and state at least four constituent elements of this environment. **[5 Marks]**

**[TOTAL: 20 MARKS]**

**END OF EXAMINATION PAPER**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE**

**Date 17<sup>th</sup> January 2022**

**9135: BUSINESS PLANNING AND DEVELOPMENT**

**TIME: THREE (3) HOURS**

**INSTRUCTIONS:**

- 1. The Paper has a Total Number of FIVE (5) Questions.**
  - 2. Answer all questions in section A & B. choose any two from section C**
  - 3. Marks Allocation Indicates the Depth of the Answer Expected.**
-

## **SECTION A**

### **(CASE STUDY)**

#### **Focus and determination**

Soichiro was the only child of a traditional working family. His mother was a weaver and father used to run a bicycle repair business. Soichiro was so passionate about automobiles that he used to help his father in the bike shop. As the day passes, he learned more about the automobiles. Through the inspiration of his father and the desire to achieve a lot.

Soichiro left home and headed to Tokyo in the search of a job with Toyota, he was not offered because he lacked qualifications relevant to his interest, he tried to explain to the managing director that he has the skill necessary to grow the company but they could not give him a listening ear.

However, he found a job in an automobile shop, where he used it as a source of capital. The job never deterred his vision of working with a big company despite not having a degree in mechanical engineering. He still wanted to do something unique that nobody has done ever. Finally after many years of experimenting the company designed an engine that is to be attached on a bicycle. It was his first mobile and he called it Honda bearing his surname.

The dreams of Soichiro were paused due to WW-II in 1945, which was the black year for Honda as the company faced a huge loss due to the devastating effect of the war. Every employee of the company was shattered but not Soichiro. The more the loss he made, the greater his determination.

In 1946, Honda started selling motorcycles, taking advantage of the war in the quest to provide affordable transport despite the deplorable state of the road network. It became a business of choice since it was cheaper than vehicles. He had a good working relationship with his employees, they were the source of

customer desire. He promoted them based on the industrial knowledge and performance and not age.

He further diversified and started building a vehicle which was leverage on the weakness of Toyota vehicles. Upon the launch of the vehicle industry, the Toyota company sells dropped by 57%. The CEO of Toyota requested of merger with Honda upon seeing the success of Honda. However, Honda Company opted to remain a competitor and by late 2000, the company dominated the market.

### **SCENARIO BASED**

#### **Required**

- (a) Soichiro Honda was not offered a job with Toyota because he lacked qualifications. What made Honda to achieve his goals despite the rejection and what lessons can be drawn from the illustration. **(10 Marks)**
- (b) During the World War II, the company made loses. However, in 1946, the company made profit taking advantage of the war. What lesson do you learn from Honda in terms of branding? **(10 marks)**
- (c) There has been debate on the removal subsidies on fuel and how this will affect the business, which has spawned many specific arguments both for and against. Provide reasoned arguments for and against the removal of subsidies **(10 marks)**

## **SECTION B**

### **QUESTION ONE**

Write short notes on the following **[5 marks each]**

- (a) Explain how cost reflective tariffs in Zesco can influence the business.
- (b) Briefly explain competitive intelligence
- (c) Provide two (2) reasons why business managers may consider forming strategic allies.
- (d) Explain the product life cycle

## **SECTION C (25 Marks Each)**

### **QUESTION ONE**

Brand personality is source of social influence in product buying, explain some circumstances in which information from advertisements is likely to be less influential than brand personality influence?

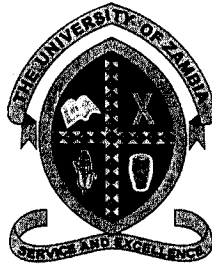
### **QUESTION TWO**

Provide an advantage for using segmentation, targeting, and positioning in developing marketing strategies.

### **QUESTION THREE**

Explain why it is necessary to develop a business plan before launching a particular business idea.





**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Sessional Examination  
JANUARY 2022**

**BBF4612 – INSURANCE AND PENSIONS MANAGEMENT**

**Information for Candidates**

1. Time Allowed: **3 hours**
2. Total Marks: 100
3. Special Requirements: - A non-programmable scientific calculator

**Instructions to candidates**

1. Answer QUESTION ONE and ANY THREE other questions
2. Start the answer to each full question on a fresh page of the answer booklet.
3. Questions may be written in any order, but must be legibly numbered.
4. Write neatly and legibly, showing ALL your workings where necessary

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**Question One** [Total 25 Marks]

(i) Define the term “contingency” and give examples of insurable contingencies. [2 marks]

(ii) Define the term “demutualisation”. [2 marks]

(iii) For each of the following, give the appropriate a definition, for a life ages  $x$  years.

(a)  ${}_t p_x$  [2 marks]

(b)  $l_w$  [2 marks]

(iv) The mortality of a certain population is governed by the life table function  $l_x = 100 - x$ ,  $0 < x < 100$ . Calculate the values of the following expressions:

(a)  ${}_8 p_{35}$  [2 mark]

(b)  ${}_7 q_{55}$  [3 marks]

(c)  ${}_5 | {}_{15} q_{60}$  [4 marks]

(v) Prepare a table projecting the sum assured over the first five years under the simple and super compound types of bonus given the following assumptions.

Simple bonus: 7%

Compound bonus on sum assured: 5%

Compound bonus on bonus: 10% [8 marks]

**Question Two** [Total 25 Marks]

(i) Briefly outline the various ways through which individuals and the society benefits from the existence of insurance. [5 marks]

(ii) Describe any FOUR key elements of the insurance product cycle. [8 marks]

(iii) Distinguish between without profits and with profits insurance policies. [4 marks]

(iv) Based on how a unit linked fund is administered, explain how the unit linked insurance plans have enjoyed preference over the traditional policies over the past 30 years. [8 marks]

**Question Three** [Total 25 Marks]

(i) Describe the roles and responsibilities of trustees in the safeguarding of Policyholder reasonable expectations in a typical occupational scheme in Zambia. [4 marks]

(ii) Explain any three factors that led to the defined benefit (DB) to defined contribution (DC) transfers and conversions into the 21<sup>st</sup> century. [6 marks]

(iii) Describe the insurance business transaction process at the Lloyd's of London. [5 marks]

(iv) Give a detailed outline of Takaful and any ONE other form of insurance organisation ownership. Your answer should clearly present details of the form of ownership and also the advantages and disadvantages for each form of ownership. [10 marks]

#### Question Four

[Total 25 Marks]

The life and health insurance sector has seen the introduction of numerous products aimed at meeting policyholder needs. A new product has been proposed for launch in the local market consisting of the following five sub-products.

- Funeral Cash – up to K21,000 immediately paid out as Funeral Cash
- Personal Accident Cash – Additional K42,000 paid out for accidental death
- Groceries Cash – Up to K21,000 worth of groceries paid to bereaved family for 1 year
- School Fees Cash – Up to K21,000 school fees paid directly to the school for your child(ren) aged below 25 years
- Hospital Cash – Up to K30,000 dollars paid for up to three days spent in hospital at K500 per night

#### Notes:

- Premium payment term is 20 years
- For [all ages] monthly premium = K200 per individual, for member spouse and children under 21 years
- Cover is open to individuals or groups
- Extended family members and children above 21 years pay a monthly premium of K500
- Monthly premium for the school fees benefit is K50 and applies to legal dependants aged 25 years and below
- Personal Accident cover and Hospital Cash monthly premium is K30 and only covers the principal member

(a) For each of the features of the above sub-products, outline the needs that it is intended to meet under the scope of life and health insurance. [16 marks]

(b) Discuss how the assumptions on the elements of rate making matter when designing the above life and health insurance products. [9 marks]

**Question Five**

**[Total 25 Marks]**

(i) A mining conglomerate has decided to set up a plant in Zambia. The company has engaged you as a consultant to help in the scheme design in compliance with the current social security environment in the most cost effective way.

(a) Outline the major benefits of a typical pension scheme. [9 marks]

(ii) Distinguish between net premium and gross premium valuation methods for contingent liabilities. [6 marks]

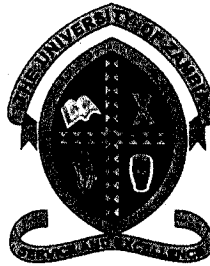
(iii) Describe the methods and purposes of the following:

(a) Statutory valuation [3 marks]

(b) Embedded value valuation [4 marks]

(iv) Outline any two roles of an Actuary as specified in the Zambia Insurance Act of 1997. [3 marks]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*\*



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Sessional Examination  
JANUARY 2022**

**BBF4612 – INSURANCE AND PENSIONS MANAGEMENT**

**Information for Candidates**

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(ii) Explain any three factors that led to the defined benefit (DB) to defined contribution (DC) transfers and conversions into the 21<sup>st</sup> century. [6 marks]

(iii) Describe the insurance business transaction process at the Lloyd's of London. [5 marks]

(iv) Give a detailed outline of Takaful and any ONE other form of insurance organisation ownership. Your answer should clearly present details of the form of ownership and also the advantages and disadvantages for each form of ownership. [10 marks]

#### Question Four

[Total 25 Marks]

The life and health insurance sector has seen the introduction of numerous products aimed at meeting policyholder needs. A new product has been proposed for launch in the local market consisting of the following five sub-products.

- Funeral Cash – up to K21,000 immediately paid out as Funeral Cash
- Personal Accident Cash – Additional K42,000 paid out for accidental death
- Groceries Cash – Up to K21,000 worth of groceries paid to bereaved family for 1 year
- School Fees Cash – Up to K21,000 school fees paid directly to the school for your child(ren) aged below 25 years
- Hospital Cash – Up to K30,000 dollars paid for up to three days spent in hospital at K500 per night

#### Notes:

- Premium payment term is 20 years
  - For [all ages] monthly premium = K200 per individual, for member spouse and children under 21 years
  - Cover is open to individuals or groups
  - Extended family members and children above 21 years pay a monthly premium of K500
  - Monthly premium for the school fees benefit is K50 and applies to legal dependants aged 25 years and below
  - Personal Accident cover and Hospital Cash monthly premium is K30 and only covers the principal member
- (a) For each of the features of the above sub-products, outline the needs that it is intended to meet under the scope of life and health insurance. [16 marks]
- (b) Discuss how the assumptions on the elements of rate making matter when designing the above life and health insurance products. [9 marks]

**Question Five**

**[Total 25 Marks]**

(i) A mining conglomerate has decided to set up a plant in Zambia. The company has engaged you as a consultant to help in the scheme design in compliance with the current social security environment in the most cost effective way.

(a) Outline the major benefits of a typical pension scheme. [9 marks]

(ii) Distinguish between net premium and gross premium valuation methods for contingent liabilities. [6 marks]

(iii) Describe the methods and purposes of the following:

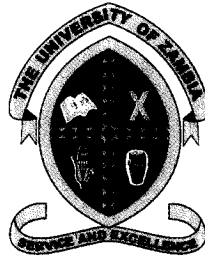
(a) Statutory valuation [3 marks]

(b) Embedded value valuation [4 marks]

(iv) Outline any two roles of an Actuary as specified in the Zambia Insurance Act of 1997. [3 marks]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*\*





**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate S/D Sessional Examination  
APRIL 2021**

**BBF4612 – INSURANCE AND PENSIONS MANAGEMENT**

**Information for Candidates**

1. Time Allowed: **3 hours**
2. Total Marks: 100
3. Special Requirements: - A non-programmable scientific calculator

**Instructions to candidates**

1. Answer **Question One** and ANY other THREE questions
2. Start the answer to each full question on a fresh page of the answer booklet.
3. Questions may be written in any order, but must be legibly numbered.
4. Write neatly and legibly, showing ALL your workings were necessary

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**Question One [Total 25 Marks] - COMPULSORY**

(i) In light of the current Covid-19 pandemic, justify the preference of a defined benefit (DB) pension arrangement. [5 marks]

(ii) Outline the benefits included in a typical comprehensive private medical insurance (PMI) product in Zambia. [5 marks]

(iii) A life insurance company issues the following policies:

A - 15-year pure endowment assurances with a sum assured of K150, 000.

B - 15-year term assurances with a sum assured of K150, 000,

C - 15-year whole life assurances with a sum assured of K150, 000,

Suggest with reasons, which of the above three policies would be have the lowest and also the one likely to have the highest premium. [6 marks]

(iv) Distinguish between with profit and without profit life assurance policies. [3 marks]

(v) Explain how the current COVID-19 environment impacts on the elements of rate making in life assurance pricing. [6 marks]

**Question Two [Total 25 Marks]**

(i) Distinguish between life insurance and general insurance. [4 marks]

(ii) Write short notes on the following types of insurance.

(a) Income protection [2 marks]

(b) Long-term care [2 marks]

(c) Private medical insurance [4 marks]

(d) Motor Insurance [4 marks]

(e) Liability Insurance [4 marks]

(iii) Describe the three pillars of pensions. [5 marks]

**Question Three [Total 25 Marks]**

(i) For each of the following, define and give an appropriate interpretation based on the life table.

(a)  $l_0$  [2 marks]

(b)  $5|14q_0$  [3 marks]

(c)  $5|15q_{60}$  [3 marks]

(ii) State the main difference between an overhead expense and a direct expense incurred in writing a life insurance policy and give an example for each. [4 marks]

(iii) Define the word 'Trustee' as used in pensions and outline any two roles and two responsibilities of pension fund trustees. [5 marks]

(iv) Describe the concept of means-tested benefits in state pension provision and outline its advantages and disadvantages. [8 marks]

#### Question Four [Total 25 Marks]

(i) Explain the concept of new business strain for a typical life insurance company. [6 marks]

(ii) Describe simple and super compound types of bonus that may be given to a with profits contract. [5 marks]

(iii) Describe the administration processes within a unit-linked fund. [5 marks]

(iv) The table below is part of a mortality table used by a life insurance company to calculate survival probabilities for a special type of life insurance policy.

$x$	$l_x$	$dx$	$q_x$
51	1,537		
52	1,532		
53	1,525		
54	1,517		
55	1,512		

(a) Copy and complete the above table filling in the values for  $dx$  and  $q_x$ . [6 marks]

(b) Calculate the probability that a policyholder who now aged exactly 52 will survive for the next 2 years and die at age 55 next birthday. [3 marks]

#### Question Five [Total 25 Marks]

(i) Describe how the principles of treating customers fairly may lead to better management of Policyholder reasonable expectations for the Zambia insurance market. [5 marks]

(ii) The Government of Siamese is reviewing its provision for the elderly in its society. Currently no State provision exists, although some of the larger employers run defined benefit schemes.

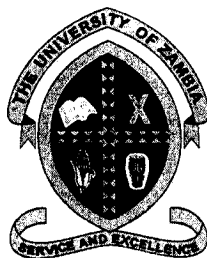
Outline the different types and levels of benefits that the Government could provide discuss how these benefits could be provided. [10 marks]

(iii) Describe the valuation methodology and purposes of the statutory valuation of a life insurance company. [5 marks]

(iv) Distinguish between self-selection and adverse selection in life or health insurance. Use a policy contract to explain each of them. [5 marks]

\*\*\*\*\*END OF S/D EXAMINATION\*\*\*\*\*

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**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Sessional Examination  
JANUARY 2021**

**BBF4612 – INSURANCE AND PENSIONS MANAGEMENT**

**Information for Candidates**

1. Time Allowed: **3 hours**
2. Total Marks: 100
3. Special Requirements: - A non-programmable scientific calculator

**Instructions to candidates**

1. Answer ANY FOUR questions
2. Start the answer to each full question on a fresh page of the answer booklet.
3. Questions may be written in any order, but must be legibly numbered.
4. Write neatly and legibly, showing ALL your workings where necessary

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## Question One [Total 25 Marks]

- (i) Distinguish between life insurance and general insurance. [4 marks]
- (ii) Write short notes on the following types of insurance.
- (a) Income protection [2 marks]
  - (b) Long-term care [2 marks]
  - (c) Private medical insurance [4 marks]
  - (d) Motor Insurance [4 marks]
  - (e) Liability Insurance [4 marks]
- (iii) Describe the three pillars of pensions. [5 marks]

## Question Two [Total 25 Marks]

- (i) Distinguish between with profit and without profit life assurance policies. [3 marks]
- (ii) Explain how the current COVID-19 environment impacts on the elements of rate making in life assurance pricing. [6 marks]
- (iii) Use the typical personal financial life cycle shown in Figure 1 below to present the; situation, financial needs and health/insurance needs for each of the presented life cycle stages. [16 marks]

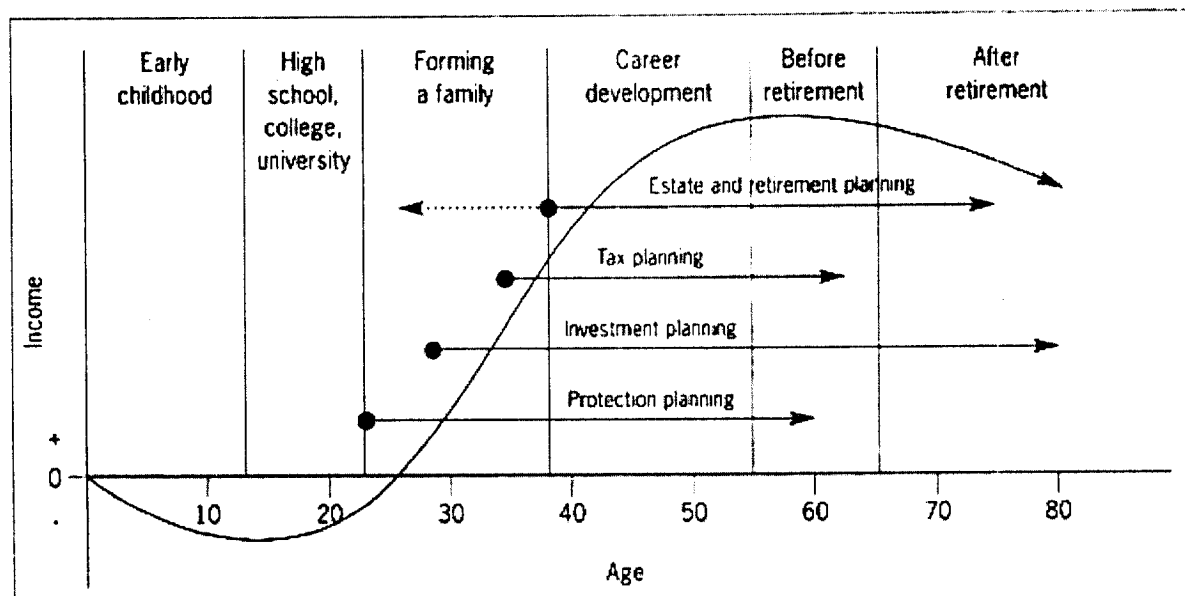


Figure 1: Personal financial life cycle

**Question Three [Total 25 Marks]**

(i) For each of the following, give an appropriate interpretation based on the life table.

- (a)  ${}_5p_0$  [1 marks]  
 (b)  $d_{38}$  [1 marks]  
 (c)  ${}_5|15q_{60}$  [2 marks]

(ii) State the main difference between an overhead expense and a direct expense incurred in writing a life insurance policy and give an example for each. [4 marks]

(iii) Define the word 'Trustee' as used in pensions and outline any two roles and two responsibilities of pension fund trustees. [5 marks]

(iv) Describe the concept of means-tested benefits in state pension provision and outline its advantages and disadvantages. [7 marks]

(v) Describe the main features of an endowment assurance contract. Give any two examples of such products from the Zambia market. [5 marks]

**Question Four [Total 25 Marks]**

(i) Explain the concept of new business strain for a typical life insurance company. [6 marks]

(ii) Describe simple and super compound types of bonus that may be given to a with profits contract. [5 marks]

(vi) Describe the administration processes within a unit-linked fund. [5 marks]

(ii) The table below is part of a mortality table used by a life insurance company to calculate survival probabilities for a special type of life insurance policy.

$x$	$l_x$	$dx$	$q_x$
51	1,537		
52	1,532		
53	1,525		
54	1,517		
55	1,512		

(a) Copy and complete the above table filling in the values for  $dx$  and  $q_x$ . [6 marks]

(b) Calculate the probability that a policyholder who now aged exactly 52 will survive for the next 2 years and die at age 55 next birthday. [3 marks]

**Question Five**

**[Total 25 Marks]**

- (i) Describe what is meant by adverse selection in the context of a life insurance Company's underwriting process and give an example. [4 marks]
- (ii) Describe how the principles of treating customers fairly may lead to better management of Policyholder reasonable expectations for the Zambia insurance market. [5 marks]
- (iii) Explain any three factors that led to the defined benefit (DB) to defined contribution (DC) transfers and conversions into the 21<sup>st</sup> century. [6 marks]
- (iv) The Government of Siamese is reviewing its provision for the elderly in its society. Currently no State provision exists, although some of the larger employers run defined benefit schemes. Outline the different types and levels of benefits that the Government could provide discuss how these benefits could be provided. [10 marks]

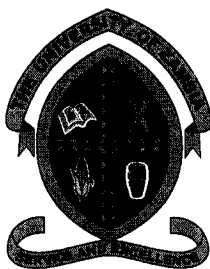
**Question Six**

**[Total 25 Marks]**

- (i) Distinguish between net premium and gross premium valuation methods for contingent liabilities. [6 marks]
- (ii) Describe the methods and purposes of the following:
- (a) Statutory valuation [5 marks]  
(b) Embedded value [5 marks]
- (iii) Outline any three assumptions used by actuaries in valuation methods. [5 marks]
- (v) Distinguish between self-selection and adverse selection in life or health insurance. Use a policy contract to explain each of them. [4 marks]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*\*





# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

### **Sessional Examination**

**Wednesday 19<sup>th</sup> December 2022**

### **BBF 4625 - PUBLIC FINANCE**

#### **Instructions**

Time Allowed: **3 hours**

There are five (5) Questions in the Examination Paper

Attempt a total of four (4) questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## QUESTION 1

- (a) Explain public goods (1 marks)
- (b) Describe pure and impure public goods (6 Marks)
- (c) Assume that an economy is made up of Jelita and Mulenga. For k8, mulenga is able to buy 3 cones of ice cream while Jelita can afford only 5 cones. Using a diagram, show the demand and supply curves for:
  - i. Jelita (3 marks)
  - ii. Mulenga (3 marks)
  - ii. Jelita and Mulenga (3 marks)
- (d) Suppose Jelita and Mulenga are now choosing not between ice cream but missile defense systems. The army needs 6 missiles. Jelita is willing to pay K4 for the 1<sup>st</sup> missile and K1 for the 6<sup>th</sup> missile. Mulenga is willing to pay K5 for the 1<sup>st</sup> missile and k2 for the 6<sup>th</sup> missile. Kindly show the demand supply curve for both mulenga and Jelita (9 marks)

**(Total 25 Marks)**

## QUESTION 2

- (a) Explain the term Positive Production externality (5 marks)
- (b) Using diagrams, explain the following affect market efficiency
  - i. Negative Consumption externality (5 marks)
  - ii. Negative Production externality (5 marks)
  - iii. Subsidy to producers (5 marks)
- (c) Explain pigouvian taxes and their disadvantages (5 marks)

**(Total 25 Marks)**

## QUESTION 3

- (a) Explain expenditure analysis (3 marks)
- (b) Explain the different classification approaches of a public budget (8 marks)
- (c) Explain indicators used to analyze public finance activity (8 marks)
- (d) Explain the objectives of a tax system (6 marks)

**(Total 25 Marks)**

## QUESTION 4

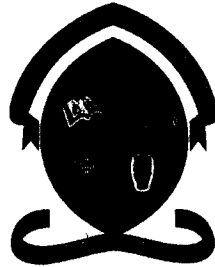
- (a) Explain the principles of taxation (10 marks)
- (b) Describe how personal income tax is calculated and administered in Zambia (10 marks)
- (c) Explain the difference between sales tax and value added tax (5 marks)

**(Total 25 Marks)**

## QUESTION 5

- (a) Explain corporate income tax (5 marks)
- (b) Explain the main sources of revenue for government (8 marks)
- (c) Describe the types of wealth tax (4 marks)
- (d) Explain the stabilization function of government and the instruments it uses (8 marks)

**(Total 25 Marks)**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

### **BBM/BBA Sessional Examination**

**Tuesday 14<sup>th</sup> September 2021**

### **BBM 3020/ BBA 3031/4510: STRATEGIC SUPPLY CHAIN MANAGEMENT**

#### **INSTRUCTIONS**

**DURATION: 3 HOURS**

- a) Ensure that you thoroughly read through the questions
- b) Mobile (Cell) phones are not allowed
- c) Scientific calculators are permitted
- d) There are **Six (6)** Questions in this paper
- e) Answer Question **One (1) ( compulsory)** and any other **Three (3)** questions with clear illustrations and diagrams where necessary
- f) All **Four (4)** questions carry equal marks

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

### QUESTION THREE

Quality is one of the most important performance objectives for most Supply Chain Organizations. Elucidate the following;

- (a) Quality is believed to have evolved from Japan, yet its origins are in the United States of America (USA). Briefly explain such a phenomenon by also highlighting at least **Six (6)** Quality Gurus that are behind the development of Quality Management and their espoused theories or philosophies [10 Marks]
- (b) Total Quality Management (TQM) is anchored on **Three (3)** principles, what are they? And what are their main features that aim at having TQM succeed in Global Operation Organisations? Describe the EFQM Excellence Model and state at least **Four (4)** Quality awards that incentivize Quality compliance in Global Operation Organisations [10 Marks]
- (c) State, define and briefly describe, **Lean Thinking Philosophy** by also stating its **Five (5)** Principles and **Seven plus One (7+ 1)** Wastes that are identified from Lean Philosophy point of view. [5 Marks]

### QUESTION FOUR

The following questions relate to strategy and how these may influence the purchasing function and the supply chain;

- (a) Briefly explain the **Three (3)** levels of strategy commonly present in supply chain Organisations and briefly describe how this are formulated and implemented in order for business firms to attain competitive edge [5 Marks]
- (b) Describe how purchasing could support an organization in the pursuit of strategy of product or service **differentiation** and **diversification** and state and briefly explain (with examples) the **Four (4) strategies** that would be adopted by a business concern, to increase the levels of Supply Chain operations growth [10 Marks]
- (c) At Business Strategic Unit (SBU) level, list and explain **Four (4) critical functions** that an Operations Unit or planning focuses on that groups a distinct set of products or services generally, also state and briefly describe **Four (4) competitive and adaptive strategies** that are involved at this strategic level in order to inspire and spur performance [10 Marks]

### QUESTION FIVE

Jeff and Jessy are students from the Copperbelt University, reading for the BSc in Purchasing and Supply Chain Management and are in the Third year of their studies. They are on industrial attachment and you as the Company Buyer (Purchasing Manager) is expected to give them guidance on matters pertaining Purchasing and Supply. After the end of their industrial break, the CEO of your organization thinks that their performance has been splendid and wishes that they come back to the company on permanent basis after the end of their studies in one year's time. He therefore, asks for them to be interviewed in your presence. Apparently, they have difficulties understanding Supplier relationships, Purchasing pricing strategies, Contract formations and Terminations, for which you are called to render help to these young upcoming

professionals and abate the embarrassment that they may suffer when they come before the CEO for this planned interview prior to assisting these individuals in the following;

- (a) What do the acronyms **EDI**, **HTML** and **XML** mean as supporting tools to Purchasing by also briefly explaining their characteristics? Explain the functionality of **EDI** in Purchasing and Supply and stating the differences between **HTML** and **XML** operating systems? Why is **XML** more preferred than **HTML** as platforms of **EDI**. Give examples of how **XML** provides each of the advantages? **[8 Marks]**
- (b) How would you define and describe Purchasing pricing strategy to Bill and Gill, by also stating and explaining **Eight (8)** Pricing strategies and **Four (4)** Pricing and Cost Analysis factors of consideration when analyzing Request for Quotations (RFQ), Request for Proposals (RFPs) and Expression of Interest (EOI) when selecting a Contractor or Supplier? **[10 Marks]**
- (c) Explain the old maxim that **'Marriages are made in heaven, but the divorce is the very devil'** as it applies to supplier relationships termination through stating and explaining the **3Ps** principles of considerations for Supplier and Buyer relationship termination **[7 Marks]**

### QUESTION SIX

You as a Buyer for your organization and has been requested to make recommendations on whether to make or buy a capital machine component. You have analysed the performance history of the company concerning the Purchase price, Fixed and Variable costs and have realized that the Purchase price and Variable costs are in the order of 0.2% and 0.18% respectively of the value of fixed costs. Below listed are the Fixed costs and their related cost centres;

<b>Cost centres</b>	<b>Costs (ZMW)</b>
Workshop	2, 000,000
Administration offices	1, 800,000
Office equipment	1,200,000
Staff wages	2,400,000
Security & Miscellaneous	600,000

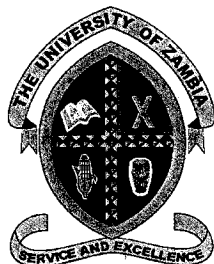
- (a) At what volume will the company be indifferent between buying and making a Capital machine component? **[10 Marks]**
- (b) If you decided not to buy or make the capital component but instead considered the option of leasing the entire capital machine on a monthly leasing cost of ZMW 2000 with the Price of the Capital Machine component remaining the same. In how many months will the Break-even point be reached? **[10 Marks]**
- (c) What are opportunity costs and why are they relevant as subject of analysis when consideration capital equipment purchasing options? **[5 Marks]**

**END OF THE EXAMINATION**

Period	Discount Rate															Period
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	1
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	2
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	3
7	0.9327	0.0096	0.8131	0.7599	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	7
8	0.9235	0.0053	0.7894	0.7307	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	8
9	0.9143	0.7477	0.7664	0.7026	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	9
13	0.8787	0.7730	0.6810	0.6006	0.5303	0.4688	0.4150	0.3677	0.3262	0.2897	0.2575	0.2292	0.2042	0.1821	0.1625	13
14	0.8700	0.7579	0.6611	0.5775	0.5051	0.4423	0.3878	0.3405	0.2992	0.2633	0.2320	0.2046	0.1807	0.1597	0.1413	14
15	0.8613	0.7430	0.6419	0.5553	0.4810	0.4173	0.3624	0.3152	0.2745	0.2394	0.2090	0.1827	0.1599	0.1401	0.1229	15
19	0.8277	0.6864	0.5703	0.4746	0.3957	0.3305	0.2765	0.2317	0.1945	0.1635	0.1377	0.1161	0.0981	0.0829	0.0703	19
20	0.8195	0.6730	0.5537	0.4564	0.3769	0.3118	0.2584	0.2145	0.1784	0.1486	0.1240	0.1037	0.0868	0.0728	0.0611	20
21	0.8114	0.6598	0.5375	0.4388	0.3589	0.2942	0.2415	0.1987	0.1637	0.1351	0.1117	0.0926	0.0768	0.0638	0.0531	21
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	25
26	0.7720	0.5976	0.4637	0.3607	0.2812	0.2198	0.1722	0.1352	0.1064	0.0839	0.0663	0.0525	0.0417	0.0331	0.0264	26
27	0.7644	0.5859	0.4502	0.3468	0.2678	0.2074	0.1609	0.1252	0.0976	0.0763	0.0597	0.0469	0.0369	0.0291	0.0230	27

Period	Discount Rate															Period
	16%	17%	18%	19%	20%	25%	30%	35%	40%	45%	50%	60%	70%	80%	90%	
1	0.8621	0.8547	0.8475	0.8403	0.8333	0.8000	0.7692	0.7407	0.7143	0.6897	0.6667	0.6250	0.5882	0.5556	0.5263	1
2	0.7432	0.7305	0.7182	0.7062	0.6944	0.6400	0.5917	0.5487	0.5111	0.4756	0.4444	0.3906	0.3460	0.3086	0.2770	2
3	0.6407	0.6244	0.6086	0.5934	0.5787	0.5120	0.4552	0.4064	0.3644	0.3280	0.2963	0.2441	0.2035	0.1715	0.1458	3
7	0.3538	0.3332	0.3139	0.2959	0.2791	0.2097	0.1594	0.1224	0.0949	0.0742	0.0585	0.0373	0.0244	0.0163	0.0112	7
8	0.3050	0.2848	0.2660	0.2487	0.2326	0.1678	0.1226	0.0906	0.0678	0.0512	0.0390	0.0233	0.0143	0.0091	0.0059	8
9	0.2630	0.2434	0.2255	0.2090	0.1938	0.1342	0.0943	0.0671	0.0484	0.0353	0.0260	0.0146	0.0084	0.0050	0.0031	9
13	0.1452	0.1299	0.1163	0.1042	0.0935	0.0550	0.0350	0.0202	0.0126	0.0080	0.0051	0.0022	0.0010	0.0005	0.0002	13
14	0.1252	0.1110	0.0985	0.0876	0.0779	0.0440	0.0254	0.0150	0.0090	0.0055	0.0034	0.0014	0.0006	0.0003	0.0001	14
15	0.1079	0.0949	0.0835	0.0736	0.0649	0.0352	0.0195	0.0111	0.0064	0.0038	0.0023	0.0009	0.0003	0.0001	0.0001	15
19	0.0596	0.0506	0.0431	0.0367	0.0313	0.0144	0.0068	0.0033	0.0017	0.0009	0.0005	0.0001	0.0000	0.0000	0.0000	19
20	0.0514	0.0433	0.0365	0.0308	0.0261	0.0115	0.0053	0.0025	0.0012	0.0006	0.0003	0.0001	0.0000	0.0000	0.0000	20
21	0.0443	0.0370	0.0309	0.0259	0.0217	0.0092	0.0040	0.0018	0.0009	0.0004	0.0002	0.0001	0.0000	0.0000	0.0000	21
25	0.0245	0.0197	0.0160	0.0129	0.0105	0.0038	0.0014	0.0006	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	25
26	0.0211	0.0169	0.0135	0.0109	0.0087	0.0030	0.0011	0.0004	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	26
27	0.0182	0.0144	0.0115	0.0091	0.0073	0.0024	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	27





# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

### **BBM/BBA Supplementary/Deferred Examination**

**November 2021**

### **BBM 3020/ BBA 3031: STRATEGIC SUPPLY CHAIN MANAGEMENT**

#### **INSTRUCTIONS**

**DURATION: 3 HOURS**

- a) Ensure that you thoroughly read through the questions
- b) Mobile (Cell) phones are not allowed
- c) Scientific calculators are permitted
- d) There are **Six (6)** Questions in this paper
- e) Answer Question **One (1) ( compulsory)** and any other **Three (3)** questions with clear illustrations and diagrams where necessary
- f) All **Four (4)** questions carry equal marks

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## QUESTION ONE

You the Purchasing specialist together with the Management Accountant have been tasked by the senior management to analyse the purchasing options for the capital equipment, to make informed purchasing decisions. You are to undertake an economic appraisal before deciding to buy a machine with an initial investment of K100,000.000. Two Machines have been considered and the net cash flow – after operation costs and expenses but not allowing for depreciation are expected to be as shown below;

	<u>Machine A</u>	<u>Machine B</u>
<u>Cash inflow Year 1</u>	25,000,000	22,500,000
Year 2	25,000,000	22,500,000
Year 3	25,000,000	22,500,000
Year 4	25,000,000	22,500,000
Year 5	25,000,000	22,500,000
Year 6	25,000,000	
Year 7	25,000,000	

- (a) Calculate; (i) Fake & Real Payback Period, (ii) NPV at 10% Discounting rate and (iii) Profitability Index (PI) for both Machines **[10 Marks]**
- (b) Deduce the Average Rate of Return (ARR), , if both **Machine A** and **Machine B** depreciates at a rate of K5,000,000 and what would be their annual depreciation rates and net profit after depreciation expressed as a percentage of the principal amount? **[10 Marks]**
- (c) Which Machine will you recommend to buy & Why? **[5 Marks]**

## QUESTION TWO

Supply Chain Management is an all encompassing discipline that ensures transformation of materials (inputs) into finished goods and services (outputs);

- (a) State and describe **Five (5)** typical components of Strategic Supply Chain Management (SSCM), **[5 Marks]**
- (b) What is Strategy as it pertains to Strategic Supply Chain Management (SSCM)? Identify and describe **Four (4)** main Growth strategies and their salient tactics (Sub strategies) that are adopted to increase the levels of operations for any given SSCM organization **[10 Marks]**
- (c) State the classical definition of Purchasing and identify and describe **Eight (8)** Pricing strategies that a Supplier may choose to sell goods, by highlighting the suitable scenarios in which these pricing profiles may be suitable **[10 Marks]**

### QUESTION THREE

Your Organisation is engaged in the Production and Selling of a high demand product, which majorly adds to the company's profitability. You as a Procurement specialist has been tasked to advise the Company's Board of Directors on the daily production and customer draw down (Selling) Inventory policy which will ensure that there is optimal management in terms of Holding and Ordering Costs. The current records indicate that the Annual Customer Demand (D) is 100,000 Units, the Ordering Cost per Unit (S) is ZMW 1000, the Holding Cost per Unit is ZMW 50, the Daily Production (P) is 800 Units and the Customer Daily Draw Down (d) is 400 Units. The available number (N) of days that the plant is operational is 250. With your gained expertise and competencies assist the Board on the following if they are to make informed decisions;

- (a) Derive the Production Order Quantity (POQ) formula and Calculate the same so as to advise Management adequately [10 Marks]
- (b) Determine the Total Cost of Inventory (TC) and the Time Before Orders (TBO) in this particular case [10 Marks]
- (c) Calculate the Number of Times that Orders are to be placed [5 Marks]

### QUESTION FOUR

You are Senior Purchasing Manager, in charge of coordinating the Purchasing and Supply Chain of your organization through firm strategic arrangements. A new board has just been constituted and its members are grappling with the theories of **Cox** and **Bensaou** models, as critical guides to Supplier interactions and management, which appear not to be making meaningful sense to many. The other issue is their difficulty in appreciating Bayer Group's **SUPREME** model for supplier management. You have been summoned to the boardroom to go and make a presentation to the board of directors on these perturbing issues:

- (a) How will you describe the **Cox** and **Bensaou** models to the board by highlighting their critical features, attributes and constituent theories of the two models in order to bring enlightenment to board members? [10 Marks]
- (b) What would be your explanation to the board members for them to fully understand the **SUPREME** model by stating and describing the **Three (3)** main ingredients of this supplier management tool in terms of features and application? [10 Marks]
- (c) If you were to use this opportunity to lobby board members on the improvement of purchasing and supplier relationship management models, which at least **Five (5)** improvement areas would you suggest and encourage board members to consider and why? [5 Marks]

### QUESTION FIVE

Purchasing and **New Product Development (NPD)** require **Early Buyer Involvement (EBI)**, **Early Supplier Involvement (ESI)** and use of models as enablers for efficiency and effectiveness;

- (a) Briefly define and explain the **Early Buyer Involvement (EBI)** and **Early Supplier Involvement (ESI)** as they pertain to Purchasing [5 Marks]

- (b) What are the advantages and disadvantages of **Early Buyer Involvement (EBI)** and **Early Supplier Involvement (ESI)** as drivers of effectiveness and efficiency in Purchasing? **[10 Marks]**
- (c) Briefly describe the **Wynstra** and **Pierick's** Supplier Involvement Portfolio Matrix and the **Kyoryokyu Kai** models, as applied in the Purchasing and Supplier Development. Explain the Purchasing Orientation and Involvement of Suppliers by outlining the **Six (6) Wynstra** Topological possible configurations of Purchasing participation in product development, the **Nine (9)** steps of Supplier Development and the **Ten (10)** Aims and Objectives of **Kyoryokyu Kai** (Supplier Associations). **[10 Marks]**

### **QUESTION SIX**

You as a Buyer for your organization and has been requested to make recommendations on whether to make or buy a capital machine component. You have analysed the performance history of the company concerning the Purchase price, Fixed and Variable costs and have realized that the Purchase price and Variable costs are in the order of 0.2% and 0.18% respectively of the value of fixed costs. Below listed are the Fixed costs and their related cost centres;

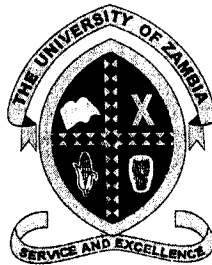
<b>Cost centres</b>	<b>Costs (ZMW)</b>
Workshop	2, 000,000
Administration offices	1, 800,000
Office equipment	1,200,000
Staff wages	2,400,000
Security & Miscellaneous	600,000

- (a) At what volume will the company be indifferent between buying and making a Capital machine component? **[10 Marks]**
- (b) If you decided not to buy or make the capital component but instead considered the option of leasing the entire capital machine on a monthly leasing cost of ZMW 2000 with the Price of the Capital Machine component remaining the same. In how many months will the Break-even point be reached? **[10 Marks]**
- (c) What are opportunity costs and why are they relevant as subject of analysis when consideration capital equipment purchasing options? **[5 Marks]**

**END OF THE EXAMINATION**

Period	Discount Rate															Period
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	1
2	0.9803	0.9612	0.9426	0.9246	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	2
3	0.9706	0.9423	0.9151	0.8890	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	3
4	0.9610	0.9238	0.8885	0.8548	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	4
5	0.9515	0.9038	0.8626	0.8219	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	5
6	0.9416	0.8876	0.8416	0.7903	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	6
7	0.9327	0.8759	0.8259	0.7759	0.7307	0.6851	0.6427	0.6035	0.5670	0.5332	0.5017	0.4723	0.4451	0.4199	0.3959	7
8	0.9235	0.8638	0.8107	0.7594	0.7127	0.6674	0.6244	0.5840	0.5465	0.5119	0.4799	0.4499	0.4219	0.3964	0.3724	8
9	0.9143	0.8519	0.7964	0.7426	0.6907	0.6406	0.5921	0.5462	0.5029	0.4621	0.4241	0.3899	0.3586	0.3299	0.3034	9
10	0.9053	0.8404	0.7824	0.7266	0.6739	0.6234	0.5750	0.5287	0.4844	0.4421	0.4027	0.3662	0.3329	0.3024	0.2742	10
11	0.8963	0.8288	0.7684	0.7106	0.6567	0.6054	0.5566	0.5102	0.4659	0.4236	0.3841	0.3474	0.3131	0.2814	0.2519	11
12	0.8874	0.8175	0.7548	0.6951	0.6401	0.5884	0.5390	0.4919	0.4469	0.4036	0.3629	0.3249	0.2896	0.2569	0.2264	12
13	0.8787	0.8064	0.7414	0.6800	0.6239	0.5714	0.5214	0.4736	0.4279	0.3841	0.3421	0.3027	0.2661	0.2324	0.2014	13
14	0.8700	0.7959	0.7284	0.6651	0.6079	0.5544	0.5034	0.4546	0.4079	0.3631	0.3201	0.2796	0.2419	0.2074	0.1754	14
15	0.8613	0.7843	0.7143	0.6499	0.5899	0.5354	0.4836	0.4339	0.3854	0.3391	0.2949	0.2536	0.2151	0.1801	0.1474	15
16	0.8528	0.7724	0.7004	0.6339	0.5729	0.5174	0.4654	0.4154	0.3674	0.3211	0.2769	0.2346	0.1951	0.1591	0.1254	16
17	0.8444	0.7614	0.6874	0.6199	0.5579	0.4999	0.4454	0.3934	0.3434	0.2951	0.2499	0.2074	0.1679	0.1314	0.0974	17
18	0.8360	0.7502	0.6742	0.6049	0.5419	0.4819	0.4254	0.3714	0.3194	0.2699	0.2229	0.1784	0.1369	0.0984	0.0634	18
19	0.8277	0.6864	0.6094	0.5374	0.4719	0.4104	0.3514	0.2944	0.2394	0.1864	0.1354	0.0854	0.0374	0.0014	0.0004	19
20	0.8195	0.6730	0.5937	0.5184	0.4494	0.3854	0.3244	0.2654	0.2084	0.1534	0.1004	0.0494	0.0004	0.0004	0.0004	20
21	0.8114	0.6598	0.5775	0.4988	0.4264	0.3589	0.2942	0.2315	0.1704	0.1114	0.0544	0.0004	0.0004	0.0004	0.0004	21
22	0.8034	0.6468	0.5619	0.4804	0.4054	0.3354	0.2694	0.2054	0.1434	0.0834	0.0254	0.0004	0.0004	0.0004	0.0004	22
23	0.7954	0.6342	0.5467	0.4614	0.3834	0.3114	0.2434	0.1774	0.1134	0.0524	0.0004	0.0004	0.0004	0.0004	0.0004	23
24	0.7876	0.6217	0.5319	0.4444	0.3634	0.2904	0.2214	0.1534	0.0874	0.0244	0.0004	0.0004	0.0004	0.0004	0.0004	24
25	0.7798	0.6095	0.4776	0.3751	0.2953	0.2330	0.1842	0.1460	0.1160	0.0923	0.0736	0.0588	0.0471	0.0378	0.0304	25
26	0.7720	0.5976	0.4637	0.3607	0.2812	0.2198	0.1722	0.1352	0.1064	0.0839	0.0663	0.0525	0.0417	0.0331	0.0264	26
27	0.7644	0.5859	0.4502	0.3468	0.2678	0.2074	0.1609	0.1252	0.0976	0.0763	0.0597	0.0469	0.0369	0.0291	0.0230	27
28	0.7568	0.5744	0.4371	0.3336	0.2551	0.1956	0.1504	0.1159	0.0895	0.0693	0.0538	0.0419	0.0326	0.0255	0.0200	28
29	0.7493	0.5631	0.4243	0.3207	0.2429	0.1846	0.1406	0.1073	0.0822	0.0630	0.0485	0.0374	0.0289	0.0224	0.0174	29
30	0.7419	0.5521	0.4120	0.3083	0.2314	0.1741	0.1314	0.0994	0.0754	0.0573	0.0437	0.0334	0.0256	0.0196	0.0151	30

Period	Discount Rate															Period
	16%	17%	18%	19%	20%	25%	30%	35%	40%	45%	50%	60%	70%	80%	90%	
1	0.8621	0.8547	0.8475	0.8403	0.8333	0.8000	0.7692	0.7407	0.7143	0.6897	0.6667	0.6250	0.5882	0.5556	0.5263	1
2	0.7432	0.7305	0.7182	0.7062	0.6944	0.6400	0.5917	0.5487	0.5102	0.4756	0.4444	0.3906	0.3460	0.3086	0.2770	2
3	0.6407	0.6244	0.6086	0.5934	0.5787	0.5120	0.4552	0.4064	0.3644	0.3280	0.2963	0.2441	0.2035	0.1715	0.1458	3
4	0.5523	0.5337	0.5158	0.4987	0.4823	0.4096	0.3501	0.3011	0.2603	0.2262	0.1975	0.1526	0.1197	0.0953	0.0767	4
5	0.4761	0.4561	0.4371	0.4190	0.4019	0.3277	0.2693	0.2230	0.1859	0.1560	0.1317	0.0954	0.0704	0.0529	0.0404	5
6	0.4104	0.3898	0.3704	0.3521	0.3349	0.2621	0.2072	0.1652	0.1328	0.1076	0.0878	0.0596	0.0414	0.0294	0.0213	6
7	0.3538	0.3332	0.3139	0.2959	0.2791	0.2097	0.1594	0.1224	0.0949	0.0742	0.0585	0.0373	0.0244	0.0163	0.0112	7
8	0.3050	0.2848	0.2660	0.2487	0.2326	0.1678	0.1226	0.0906	0.0678	0.0512	0.0390	0.0233	0.0143	0.0091	0.0059	8
9	0.2630	0.2434	0.2255	0.2090	0.1938	0.1342	0.0943	0.0671	0.0484	0.0353	0.0260	0.0146	0.0084	0.0050	0.0031	9
10	0.2267	0.2080	0.1911	0.1756	0.1615	0.1074	0.0725	0.0497	0.0346	0.0243	0.0173	0.0091	0.0050	0.0028	0.0016	10
11	0.1954	0.1778	0.1619	0.1476	0.1346	0.0859	0.0558	0.0368	0.0247	0.0168	0.0116	0.0057	0.0029	0.0016	0.0009	11
12	0.1686	0.1520	0.1372	0.1240	0.1122	0.0687	0.0429	0.0273	0.0176	0.0116	0.0077	0.0036	0.0017	0.0009	0.0005	12
13	0.1452	0.1299	0.1163	0.1042	0.0935	0.0550	0.0330	0.0202	0.0126	0.0080	0.0051	0.0022	0.0010	0.0005	0.0002	13
14	0.1252	0.1110	0.0985	0.0876	0.0779	0.0440	0.0254	0.0150	0.0090	0.0055	0.0034	0.0014	0.0006	0.0003	0.0001	14
15	0.1079	0.0949	0.0835	0.0736	0.0649	0.0352	0.0195	0.0111	0.0064	0.0038	0.0023	0.0009	0.0003	0.0001	0.0001	15
16	0.0930	0.0811	0.0708	0.0618	0.0541	0.0281	0.0150	0.0082	0.0046	0.0026	0.0015	0.0005	0.0002	0.0001	0.0000	16
17	0.0802	0.0693	0.0600	0.0520	0.0451	0.0225	0.0118	0.0061	0.0033	0.0018	0.0010	0.0003	0.0001	0.0000	0.0000	17
18	0.0691	0.0592	0.0508	0.0437	0.0376	0.0180	0.0089	0.0045	0.0023	0.0012	0.0007	0.0002	0.0001	0.0000	0.0000	18
19	0.0596	0.0506	0.0431	0.0367	0.0313	0.0144	0.0068	0.0033	0.0017	0.0009	0.0005	0.0001	0.0000	0.0000	0.0000	19
20	0.0514	0.0433	0.0365	0.0308	0.0261	0.0115	0.0053	0.0025	0.0012	0.0006	0.0003	0.0001	0.0000	0.0000	0.0000	20
21	0.0443	0.0370	0.0309	0.0259	0.0217	0.0092	0.0040	0.0018	0.0009	0.0004	0.0002	0.0001	0.0000	0.0000	0.0000	21
22	0.0382	0.0316	0.0262	0.0218	0.0181	0.0074	0.0031	0.0014	0.0006	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	22
23	0.0329	0.0270	0.0222	0.0183	0.0151	0.0059	0.0024	0.0010	0.0004	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	23
24	0.0284	0.0231	0.0188	0.0154	0.0126	0.0047	0.0018	0.0007	0.0003	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	24
25	0.0245	0.0197	0.0160	0.0129	0.0105	0.0038	0.0014	0.0006	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	25
26	0.0211	0.0169	0.0135	0.0109	0.0087	0.0030	0.0011	0.0004	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	26
27	0.0182	0.0144	0.0115	0.0091	0.0073	0.0024	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	27
28	0.0157	0.0123	0.0097	0.0077	0.0061	0.0019	0.0006	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	28
29	0.0135	0.0105	0.0082	0.0064	0.0051	0.0015	0.0005	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	29
30	0.0116	0.0090	0.0070	0.0054	0.0042	0.0012	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	30



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**February 2021**

**BSM 2112: Fundamentals of Marketing**

**Instructions:**

Time Allowed: **3 hours**

There are five questions in this Examination Paper

SECTION A is Compulsory and Answer any two from SECTION B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A (COMPULSORY)**

### **QUESTION ONE**

1. Market skimming involves
  - a) Setting the lowest price possible
  - b) Setting the highest price possible
  - c) Setting the price that allows for coverage of variable costs only
  - d) Setting the price that sets the brand apart as the most quality product.
2. What is the key element of value based pricing
  - a) Using a standard mark up
  - b) Adding as high a mark as possible
  - c) Ensuring that your prices match those of the competition
  - d) Determining how your product is seen by the customer in terms of its worth or value.
3. The first Idea reducing stage of the new product development process is
  - a) Concept development
  - b) Business analysis
  - c) Concept testing
  - d) Idea screening
4. The strategy that directs its marketing activities to the final consumers is known as
  - a) End strategy
  - b) Push strategy
  - c) Pull Strategy
  - d) Touch Strategy
5. What Marketing Concept works on supposition that consumers buy products which fulfil their needs?
  - a) Production concept
  - b) Marketing concept
  - c) Selling concept
  - d) Product Concept
6. \_\_\_ focuses on making every possible sale of the product, regardless of the need of customer.
  - a) Production concept
  - b) Marketing concept
  - c) Selling concept
  - d) Product concept
7. \_\_\_ focuses on making better-quality products for their customers.
  - a) Production concept
  - b) Marketing concept
  - c) Selling concept
  - d) Product concept
8. In macro environment, 'pressure groups' and 'government agencies' are part of:
  - a) Demographic environment



- b) Political environment
  - c) Economic environment
  - d) Cultural environment
9. Which of the following is the part of buyer's black box?
- a) Buyer's characteristics
  - b) Consumer behaviour
  - c) Buyer attitude
  - d) Buyer's personality
10. In consumer behaviour which of the following is NOT the part of cultural factors?
- a) Sub culture
  - b) Culture
  - c) Social class
  - d) Family
11. Which of the following buying behaviour is undertaken by buyers when they are highly involved in purchase process and there are significant perceived differences among brands?
- a) Complex buying behaviour
  - b) Variety seeking buying behaviour
  - c) Dissonance reducing buying behaviour
  - d) Habitual buying behavior
12. Which of the following buying behaviour is undertaken by buyers when they are highly involved with an expensive, risky and infrequent purchase but there are few perceived differences among brands.
- a) Dissonance reducing buying behaviour
  - b) Habitual buying behaviour
  - c) Variety Seeking buying behaviour
  - d) Complex buying behaviour
13. Customer market division done on basis of 'compulsive, ambitious and outgoing customers' classified as
- a) geographic segmentation
  - b) demographic segmentation
  - c) psychographic segmentation
  - d) behavioural segmentation
14. Problems associated with secondary data include all of the following **EXCEPT**
- a) Consistency
  - b) Relevancy
  - c) Accuracy
  - d) Currency
15. Which one of the following Vertical Marketing systems results in the greatest level of unification among players
- a) Contractual
  - b) Corporate
  - c) Horizontal
  - d) Administered

16. When two Chicken restaurants have a disagreement over who should be able to sell in quantity at a discount to the local high school band ,they are in a \_\_\_\_\_ Conflict
- a) Vertical
  - b) Problematic
  - c) Horizontal
  - d) Contractual
17. A product in the maturity stage will often require \_\_\_\_\_ advertising
- a) Informative
  - b) Comparative
  - c) Persuasive
  - d) Reminder
18. What is one of the disadvantages of disintermediation?
- a) Greater contact between the manufacturer and the consumer
  - b) More profit to the manufacturer
  - c) Fewer physical locations to reach the final consumer
  - d) All of the above
19. Introducing a new product on the market is called
- a) Test marketing
  - b) New Product Development
  - c) Experimenting
  - d) Commercialization
20. Which of the marketing communications tools can harm the reputation of the firm if used too frequently.
- a) Sales promotion
  - b) Advertising
  - c) Public relations
  - d) Personal selling
21. Direct marketing and personal selling share which advantage
- a) Less costly than advertising per contact
  - b) More costly than advertng per contact
  - c) Opportunity for relationship building with customers
  - d) None of the above
22. Reminder advertising is used in which stage of the product life cycle?
- a) Product Development
  - b) Introduction
  - c) Growth
  - d) Maturity
23. Which of the following is a criticism of public relations
- a) It is cost effective
  - b) It focuses on the brand rather than the company
  - c) It focus on the company rather the brand
  - d) It is not believable
24. All of the following are stages in the PLC EXCEPT

- a) Introduction
- b) Adoption
- c) Growth
- d) Decline

25. Any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor is called.....

- a) Sales promotion
- b) Direct marketing
- c) Advertising
- d) Personal selling

**(25 Marks)**

## **QUESTION TWO**

The concept of pricing is complex and of fundamental importance to the successful Implementation of a marketing strategy. Explain five (5) factors that influence the pricing decisions for new products.

**(25 Marks)**

## **SECTION B (ANSWER ANY TWO QUESTIONS FROM THIS SECTION)**

### **QUESTION THREE**

New product development refers to original products, product improvements, Product modifications, and new brands developed from the firm's own research and Development. Describe the key steps in developing and launching new products.

**(25 Marks)**

### **QUESTION FOUR**

A marketing information system (MIS) is a way to manage the vast amount of information firms have. Explain the different components of MIS.

**(25 Marks)**

### **QUESTION FIVE**

Explain the difference between vertical marketing systems and conventional marketing channels. Why have vertical marketing systems become more popular?

**(25 Marks)**

### **QUESTION SIX**

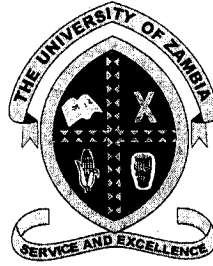
Write brief notes on the following

- a) Geographic Segmentation

- b) Optional Pricing
- c) Complex buying behavior
- d) Societal Marketing Concept
- e) Marketing Mix

**(25 Marks)**

**END OF EXAMINATION**



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

**Sessional Examination**

**Thursday 12th December 2019**

**BSM 2012: FUNDAMENTALS OF MARKETING**

**Instructions:**

Time Allowed: 3 hours

There are two Sections in this Paper

1. Section A is **Compulsory**
2. Answer any **Two** of the **Four** Questions from Section B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A (COMPULSORY)**

### **Question One**

Assume that you work for Green Research Ltd, a research company in Lusaka. The ministry of Youth ,Sport and Child Development has approached your company claiming that there has been an increase in drug abuse amongst the youths in Lusaka and they would like to understand why this is so. The ministry says that they would like to use social marketing strategies to curb this vice but in order for them to design any intervention strategies they must first understand the situation. You have been tasked to carry out a study on this issue.

Required:

- a) Using the appropriate wording, state what would be the research objective of this study.(1Mark)
- b) Distinguish between the universe and the sample frame(5 Marks)
- c) For this study who would be in your sample, and how would you choose this sample?(10Marks)
- d) Which data collection method would you use to gather the relevant information?(5Marks)
- e) Recommend to the ministry two (2) possible ways of tackling the issue of drug abuse using any two (2) marketing appeals of your choice. (4Marks)

**(Total Marks: 25)**

### **Question Two**

ABC Ltd has just launched a new brand, 'Sunshine'. They have noted an increased level of conflict among the members of its distribution channel.

Required:

- a) Distribution channel members perform important roles in distribution of products. However, some producers are opting to bypass them. Explain five (5) possible reasons for doing this.(10 Marks)
- b) Provide five advantages that intermediaries provide. (5 Marks)
- c) Highlight the measures that ABC Ltd should take in order to minimize this level of conflicts among its distribution channel.(10 Marks)

**(Total Marks: 25)**

## **SECTION B (ANSWER ANY TWO QUESTIONS FROM THIS SECTION)**

### **Question Three**

Consumer buyer behaviour refers to the buying behaviour of individuals and households that buy products for personal consumption. Explain the stages of the consumer decision buyer behaviour process. (25 Marks)

### **Question Four**

Explain the implications of what is meant when direct marketing is described as a pro-active approach to marketing, by taking the product or service direct to customers rather than waiting for them to come to the seller (25 Marks)

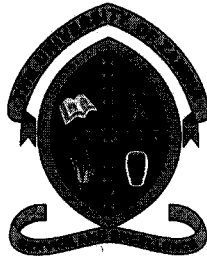
### **Question Five**

It can be argued that Cost plus pricing is a fair pricing method. Discuss .Which pricing method would you use and why to set the price of a newly introduced consumer product in the local market?

### **Question Six**

Most companies understand the different product life cycle stages, and that the products they sell all have a limited lifespan. Explain the product life cycle and give appropriate strategies for each stage. (25 marks)

**END OF EXAMINATION**



THE UNIVERSITY OF ZAMBIA

# GRADUATE SCHOOL OF BUSINESS

**Final Examination**

**January 2022**

## **BSM 2112: FUNDAMENTALS OF MARKETING**

**Instructions:**

Time Allowed: **3 hours**

There are Six (6) questions in this Examination Paper

SECTION A is Compulsory and Answer any two (2) from SECTION B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



## **SECTIONS A (COMPULSORY)**

### **QUESTIONS ONE**

#### **Scenario Based**

Sanders was born in Henryville. When he was only six years old, his father passed away. Sanders was the only person who cares and cooks for his siblings. The mother of Colonel spends all of her days doing different routine work. According to the New Yorker, at the age of 7th, he was a great cook.

When he was 16, he enlists his fake age in the army of the United State. He was discharged after a year and got hired by a railway as the labourer. Here he was fired by the railway for fighting with the co-worker. He studied law and also ruined his legal career because of getting into another conflict. He moves back to his mother and gets another job of selling life insurance. He again fired for nonperformance. In spite of all these failures, he never gives up but struggled to move forward. He also did many other jobs like stocking steam engines of trains, selling tires, preparing lighting systems, selling insurance and operating ferry boats.

In 1930 He began serving delicious classic dished for travelers. The location became one of the most popular places for food. Sander realizes to convert the station's gas pump to the full-fledged restaurant. The place was strategically located and sales increased in the short run. The location was strategic but the product was stopped appealing due to emerging competition. The sales declined and was almost shutting down. Nine years later, he discovered a formula that frying delicious chicken and signature "11-herbs and spices" in pressure cookers bring ideal consistency and appeals to the customers in all segments, the discovery led to the closure of all the competitors in the area. He had to make his formula know to potential customers using door to door campaign.

Sander's restaurant got popular all over the America that the governor of Kentucky named Sanders as Colonel which is the best and highest honor title given by the state, Sander's adopt white suit, Kentucky tie for pop-culture icon.

He made a deal with the restaurant friend named Pete Harman in 1952. According to this deal, he sells his chicken dish in exchange for the 4-cent royalty on each sold price, this was the beginning of Franchise . Kentucky's fried chicken (**KFC**) became the top-selling items. Sanders's made this amazing deal with other local restaurants. He built his brand by coming up with a recipe that was appealing to the customers. He ensured that customers were served with three minutes, any negative feedback on his service was a point of sale.

Negative public relations on his past did not hunt him, competitors called him failure, his goal was to identify the unmet needs in the food industry. He did market research on how he could make his business international at cost effective price, he desired that every country on the globe should taste his Chicken, then he came to the conclusion that he could franchise his business. When meeting a potential franchisee, he talked about the recipe of cooking chicken and its seasoning. It took a long time before he could find the first customer. Under the contract, Sanders received just 5 cents for each of his sold chicken. Not bad, considering the multiplier effect. By 1960s, the company had dominated the international market and Sanders started receiving millions of dollars on daily basis.

Required:

- (a) Explain the marketing strategies Sanders ventured in ensuring that his business became global  
(10 Marks)
- (b) The location was strategic but the product was not appealing, this led to decline in sales. Strategic location is not the only means to gain competitive advantage, to what extent do you agree with this statement and explain other strategies that companies can use to gain competitive advantage (10 Marks)
- (c) Discuss why an understanding of consumer needs is important for marketing strategy. Explain specific ways in which understanding customer needs can influence customer choices. Provide an example to illustrate your answers. (10 Marks)

**(Total Marks: 30)**

## **QUESTION TWO**

Short answer (5 marks each)

- a) Explain elements of the marketing mix
- b) Briefly explain Cost based pricing method
- c) Explain Geographical segmentation and the rationale behind it
- d) Explain any two macro environmental factors that can affect business operations
- e) Briefly explain what is meant by competitive advantage.

**(Total Marks: 20)**

## **SECTION B (ANSWER ANY TWO QUESTIONS FROM THIS SECTION)**

### **QUESTION THREE**

An opinion leader is a special source of social influence and is defined as an individual who acts as an information broker between the mass media and the opinions and behaviors of an individual or group.

- (i) Explain why is an opinion leader a more credible source of product information than an advertisement for the same product?
- (ii) Are there any circumstances in which information from advertisements is likely to be more influential than word-of-mouth give real life examples?

**(25 Marks)**

### **QUESTION FOUR**

Most companies understand the different product life cycle stages, and that the products they sell all have a limited lifespan. Explain the product life cycle and give appropriate strategies for each stage.

**(25 Marks)**

### **QUESTION FIVE**

Assume that you are working in the marketing department of Mulungushi textile. The company is introducing a new line of fashion made of recycled cotton. Compare and contrast sales promotion and advertising. Explain which of these two types of marketing communications tools is more suitable to launch the new product. Justify your answers.

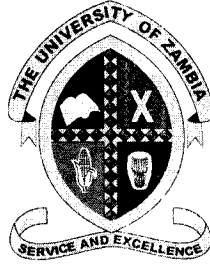
**(25 Marks)**

**QUESTION SIX**

A distribution channel is a chain of businesses or intermediaries through which a good or service passes until it reaches the final buyer or the end consumer. Explain five (5) advantages of having intermediaries in the distribution.

**(25 Marks)**

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Deferred / Supplementary Examination**

**March 2021**

**BSM 2112: FUNDAMENTALS OF MARKETING**

**Instructions:**

Time Allowed: **3 hours**

There are five questions in this Examination Paper

Answer any four Questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

### **QUESTION ONE**

Most companies understand the different product life cycle stages, and that the products they sell all have a limited lifespan. Explain the product life cycle and give appropriate strategies for each stage.

**(25Marks)**

### **QUESTION TWO**

Consumer buyer behavior refers to the buying behavior of individuals and households that buy products for personal consumption. Explain the stages of the consumer decision buyer behavior process.

**(25 Marks)**

### **QUESTION THREE**

Intermediaries are the link between the customer and the organization. Explain five functions that Intermediaries perform to assist both manufacturers and consumers.

**(25 Marks)**

### **QUESTION FOUR**

The macro environment is the broader context within which a company conducts its commercial operations. Explain the macro environmental factors that may have an impact on the organisational operations.

**(25 Marks)**

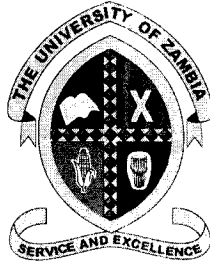
### **QUESTION FIVE**

Write brief notes on the following words

- a) Marketing mix
- b) Marketing Concept
- c) Sales Promotion
- d) Vertical conflict
- e) Demographic Segmentation

**(25 Marks)**

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Deferred / Supplementary Examination**

**March 2021**

**BSM 2112: FUNDAMENTALS OF MARKETING**

**Instructions:**

Time Allowed: **3 hours**

There are five questions in this Examination Paper

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**(25Marks)**

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**(25 Marks)**

### **QUESTION FIVE**

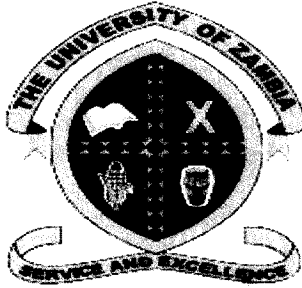
Write brief notes on the following words

- a) Marketing mix
- b) Marketing Concept
- c) Sales Promotion
- d) Vertical conflict
- e) Demographic Segmentation

**(25 Marks)**

**END OF EXAMINATION**





# THE UNIVERSITY OF ZAMBIA

## GRADUATE SCHOOL OF BUSINESS

### CONSUMER BEHAVIOUR BSM 3111

Date: 9<sup>th</sup> September 2021

**Time Allowed:** Three(3) hours

**Instructions to Candidates:**

1. Read the instructions very carefully
2. Check that you have the correct examination paper in front of you.
3. There are Five (5) questions in this question paper. Answer **ANY Four (4)**.
4. All answers must only be answered in the answer booklet provided.
5. Write down the question numbers that you have answered on the cover of the examination booklet provided.
4. Marks for each question are indicated in the brackets.
5. Answers must be in complete sentences. No credit will be given for any answer that is in point form.

## **QUESTION ONE**

As a consumer we are all unique and this uniqueness is reflected in the consumption pattern and process of purchase. The study of consumer behaviour provides us with reasons why consumers differ from one another in buying using products and services. We receive stimuli from the environment and the specifics of the marketing strategies of different products and services and responds to these stimuli in terms of either buying or not buying product. In between the stage of receiving the stimuli and responding to it, the consumer goes through the process of making his decision.

- a) Discuss the factors that influence consumer buying behaviour. **(8 Marks)**
- b) Explain with examples the consumer buying decision process and why it is important to a marketer. **(10 Marks)**
- c) Outline and discuss the participants in the purchase decision . **( 7 Marks)**

**(TOTAL: 25 MARKS)**

## **QUESTION TWO**

We often use the term Consumer to describe two different kinds of consuming entities: the personal consumer and the organisational consumer. The personal consumer is one who buys goods and services for his or her own use, for the use of the household, or as a gift for a friend. The organisational consumers include profit and not-for-profit business, government agencies, and institutions, all of which must buy products, equipment, and services in order to run their organisations.

- a) Explain Five(5) differences between organisational and customer buying. **(10 Marks)**
- b) Discuss the purchase objectives for organisations and consumers. **(8 Marks)**
- c) Discuss the roles that each individual plays in the decision process in understanding consumer behaviour. **(7 Marks)**

**(TOTAL:25 MARKS)**

### **QUESTION THREE**

a) Explain a person's attitude toward visiting Disney World in terms of the tricomponent attitude model. **(10 Marks)**

b) Explain how the product manager of a breakfast cereal might change consumer attitudes toward the company's brand by: (a) changing beliefs about the brand; (b) changing beliefs about competing brands; (c) changing the relative evaluation of attributes; and (d) adding an attribute. **(15 Marks)**

**(TOTAL: 25 MARKS)**

### **QUESTION FOUR**

a) Opinion Leadership is the process by which one person (opinion leader) informally influences the actions or attitudes of others, who may be opinion seekers or merely opinion recipients. Discuss Five (5) characteristics of opinion leaders. **(10 Marks)**

b) Explain how marketers identify opinion leaders. **(10 Marks)**

c) Briefly discuss what market mavens are **(5 Marks)**

**(TOTAL: 25 MARKS)**

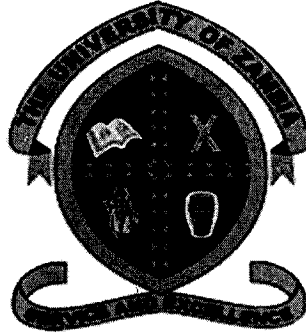
### **QUESTION FIVE**

a) Briefly define culture and the four (4) main different types of culture. **(15 Marks)**

b) Explain what cross cultural customer analysis is and why it is important to marketers such as yourself. **(10 Marks)**

**(TOTAL: 25 MARKS)**

**END OF EXAMINATION.**



# THE UNIVERSITY OF ZAMBIA

## GRADUATE SCHOOL OF BUSINESS

### BSM3112 STRATEGIC MARKETING MANAGEMENT

### END OF SEMESTER FINAL EXAMINATION

Date: 17<sup>th</sup> January 2022

**Time Allowed:** Three (3) hours

**Instructions to Candidates:**

1. Read the instructions very carefully
2. Check that you have the correct examination paper in front of you.
3. There are two (2) sections in this examination paper; Section A and Section and B. Section A is compulsory. Answer any **Four (4)** from Section B.
4. All answers must only be answered in the answer booklet provided.
5. Write down the question numbers that you have answered on the cover of the examination booklet provided.
4. Marks for each question are indicated in the brackets.
5. Answers must be in complete sentences. No credit will be given for any answer that is in point form.

## **SECTION A: COMPULSORY**

### **Question One**

a) A marketing audit is a comprehensive, systematic, independent and periodic examination of a company's or business unit marketing and it is designed to evaluate marketing assets and activities in the context of marketing conditions, and use the resulting analysis to aid the firm in planning. The planning referred to in this statement points to the marketing strategy, which will be documented in detail in a marketing plan, "Bruce Clark". Discuss the components and types of marketing audit.

**(15 Marks)**

b) What is your understanding of strategic marketing management?

**(5 Marks)**

**[TOTAL: 20 MARKS]**

## **SECTION B: ANSWER ANY FOUR (4) QUESTIONS**

### **Question Two**

Write brief notes on the following marketing tools; illustrate their value to the development of an effective marketing strategy.

- a) Boston Matrix (5 Marks)
- b) Porter's generic strategies (5 Marks)
- c) GE Matrix (5 Marks)
- d) Ansoff's product/market matrix (5 Marks)

**[TOTAL: 20 MARKS]**

### **Question Three**

- a) Distinguish between cost leadership strategy and Differentiation strategy. (6 Marks)
- b) Explain how a firm can achieve cost leadership and state the disadvantages of cost leadership strategy. (10 Marks)
- c) What is corporate strategy? (4 Marks)

**[TOTAL: 20 MARKS]**

### **Question Four**

As a Marketing consultant, you have successfully designed a marketing strategy for a new bottled water brand called VATRA. It is targeted at low-income consumers in Lusaka. The product is to be produced by a small firm in Lusaka. There are no immediate or short-term plans to take the product national. Your marketing plan has the ambitious objective of achieving a market share of 1% in the next five years. This means that every one litre out of 100 litres of water sold in the target market will be supplied by VATRA. Using the 6M framework, recommend a promotional strategy for VATRA. (12 Marks)

- b) To communicate effectively, marketers need to understand how communication works. Discuss the communication process and the role that each element plays in the process. (8 Marks)

**[TOTAL: 20 MARKS]**

### **Question Five**

a) Michael Porter identifies three broad strategies for attaining competitive advantage. Explain how Financial Institutions may apply the following competitive strategies in their marketing drive:

1. Differentiation (5 Marks)
2. Focus (5 Marks)
3. Cost leadership (5 Marks)

b) Briefly discuss the different levels of a product. (5 Marks)

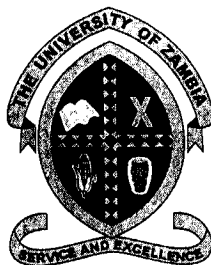
**[TOTAL: 20 MARKS]**

### **QUESTION SIX**

Discuss Ansoff's product/market matrix in the context of identifying and assessing alternative strategic directions for growth. (20 Marks)

**[TOTAL: 20 MARKS]**

**END OF EXAMINATION.**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**February 2021**

**BSM 3115: Industrial Marketing**

**Instructions:**

Time Allowed: **3 hours**

There are five questions in this Examination Paper

Answer ANY Four Questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



### **QUESTION ONE**

Classification of industrial products is necessary as it helps in decision making for the organization. Industrial goods are classified on the basis of their relative costs and where they enter the production process. Explain the major classes of industrial products.

**(25 Marks)**

### **QUESTION TWO**

Buying centers are groups of people within organizations who make purchasing decisions. Describe the roles of the buying center members in industrial marketing and clearly outline the factors that determine the size of the buying center.

**(25 Marks)**

### **QUESTION THREE**

Industrial marketing, also known as business-to-business (B2B) marketing, is a branch of communications and sales that specializes in providing goods and services to other businesses, rather than to individual customers. Explain the differences between industrial marketing and consumer marketing.

**(25 Marks)**

### **QUESTION FOUR**

Industrial buyers and sellers operate in a dynamic environment. One constantly poising new opportunities and threats. Describe the components that make up the industrial marketing environment.

**(25 Marks)**

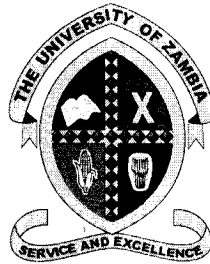
### **QUESTION FIVE**

Write brief notes on the following:

- a) Derived demand
- b) Modified Rebuy
- c) Inelastic Demand
- d) JIT Concept
- e) Gate Keepers

**(25 Marks)**

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**January 2021**

**BSM 3115: International Marketing**

**Instructions:**

Time Allowed: **3 hours**

There are five questions in this Examination Paper

SECTION A is Compulsory and Answer any three from SECTION B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A (COMPULSORY)**

### **QUESTION ONE**

Exporting is a typically the easiest way to enter an international market, and therefore most firms begin their international expansion using this model of entry. Discuss the advantaged and limitations of indirect exporting. **(25 Marks)**

## **SECTION B (ANSWER ANY THREE QUESTIONS FROM THIS SECTION)**

### **QUESTION TWO**

What are the factors that prompt business organizations to invest in foreign countries? Discuss giving suitable examples. **(25 Marks)**

### **QUESTION THREE**

When entering a new market it is important to learn the culture of the new market. Explain how culture effects international Marketing. **(25 Marks)**

### **QUESTION FOUR**

Protectionism refers to government policies that restrict international trade to help domestic industries. Explain the disadvantages of protectionism. **(25 Marks)**

### **QUESTION FIVE**

Write brief notes on the following

- a) Dumping
- b) Transfer Pricing
- c) Product Adaptation
- d) Foreign Direct Investment
- e) Piggybacking

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Deferred / Supplementary Examination**

**March 2021**

**BSM 3115: INTERNATIONAL MARKETING**

**Instructions:**

Time Allowed: **3 hours**

There are five questions in this Examination Paper

Answer any four Questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

### **QUESTION ONE**

"The marketer's task is the same whether applied in Zambia, USA, or China. Discuss.  
(25Marks)

### **QUESTION TWO**

International marketing is the performance of business activities that direct the flow of a company's goods and services to consumers or users in more than one nation. Explain five reasons why companies engage in international marketing.

**(25 Marks)**

### **QUESTION THREE**

Product standardization refers to the process of maintaining uniformity and consistency among the different iterations of a particular good or service that are available in different markets. Give five (5) advantages and five (5) disadvantages of product standardization.

**(25 Marks)**

### **QUESTION FOUR**

International marketers are faced with quite a range of factors in the international business environment that can have profound effects on their marketing activities. One of the factors being social-cultural factors. Explain how social-cultural factors may affect international marketing activities.

**(25 Marks)**

### **QUESTION FIVE**

Write brief notes on the following words:

- a) Joint Venture
- b) FDI
- c) Direct Exporting
- d) Product adaptation
- e) Globalization

**(25 Marks)**

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**January 2022**

**BSM 3132: SERVICES MARKETING**

**Instructions:**

Time Allowed: **3 hours**

There are Six (6) questions in this Examination Paper

SECTION A is Compulsory and Answer any three (3) from SECTION B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A (COMPULSORY)**

### **QUESTION ONE**

Service failure: a perception by customers that one or more specific aspects of service delivery have not met their expectations.

- a) Explain three ways in which customers respond to services failure?
- b) How can you make it easy for customers to explain? *Can Plan*

**(25 Marks)**

## **SECTION B (ANSWER ANY THREE (3) QUESTIONS FROM THIS SECTION)**

### **QUESTION TWO**

A company that satisfies the needs of its internal customers enhances its ability to satisfy the needs of its external customers. Explain five (5) ways a company can use to carry out internal marketing to its customers.

**(25 Marks)**

### **QUESTION THREE**

Describe the GAP model. What do you think service marketers can do to prevent each of these gaps?

**(25 Marks)**

### **QUESTION FOUR**

Give five (5) differences between Goods and services providing a marketing implication for each or the five differences.

**(25 Marks)**

### **QUESTION SIX**

Discuss the reasons for growth of the services sector in the Zambian economy.

**(25 Marks)**

**END OF EXAMINATION**



# THE UNIVERSITY OF ZAMBIA

## Graduate School of Business

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### FINAL EXAMINATION

BSM4112 – E-MARKETING

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Date : 17<sup>TH</sup> SEPTEMBER 2021  
Time : 14:00hrs – 17:00hrs  
Duration : 3 Hours

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#### Instructions

- The question paper has **TWO SECTIONS (A and B)**.
  - Answer **ALL** questions from **Section A** according to the instructions.
  - There are **FIVE (5)** questions in **Section B** and you are required to answer any **THREE (3)** of them in any order.
  - Clearly number your answers.
  - Start each question on a new page.
-



**SECTION A – ANSWER ALL QUESTIONS BY SELECTING THE LETTER(S) REPRESENTING YOUR ANSWER**

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1. Targeting overseas markets through the online channel is an example of
  - A. market penetration.
  - B. market development.
  - C. diversification.
  - D. product development.
2. In strategy development, matching of internal resources against external demands forms part of:
  - A. strategy objective setting.
  - B. strategic analysis.
  - C. strategy implementation.
  - D. strategy definition.
3. To which example of media channel does a TV advert belong to?
  - A. Paid
  - B. Shared
  - C. Owned
  - D. None of the above
4. Which of the following belongs to the category of owned media? Choose all that applies
  - A. Presence on Social media like Facebook, LinkedIn or twitter
  - B. An advert in a local newspaper
  - C. A company's brochure
  - D. A company's website
5. Which of the following is an example of a website, which provides episodic series of spoken word digital audio files that a user can download to a personal device for easy listening.
  - A. RSS feed
  - B. Facebook
  - C. Blog
  - D. Podcast
6. What is an RSS feed?
  - A. A regularly updated source of content to engage an audience.
  - B. A website that facilitates peer-to-peer communication.
  - C. Delivery of audio (or video) content.
  - D. Alerts on news, products or promotions received by their audience through readers that regularly check for new content.
7. A generic digital marketing strategy development process includes the following stages: A) delivering results online, B) Defining the online opportunity C) Selecting a strategic approach. In what order should these be executed?
  - A. A, B, C
  - B. B, A, C
  - C. B, C, A
  - D. C, A, B
8. Which of the following steps in the steps, in the RACE framework is an example of contacting customers that visited your site and left their email addresses?
  - A. Reach
  - B. Act
  - C. Convert

- D. Engage
9. Which key communications concepts for digital marketing involves repeated interactions with the customers to strengthen investment in them?
- A. Permission marketing
  - B. Customer engagement
  - C. Content marketing
  - D. None of the above
10. \_\_\_\_\_ is a digital communications technique which involves improving visibility and monitoring sentiment within social networks and blogs.
- A. E-PR
  - B. SEO
  - C. Email Marketing
  - D. Display advertising
11. Which of the strategic directions can be achieved by the Internet? Choose all that applies.
- A. Market penetration
  - B. Market development
  - C. Product development
  - D. Diversification
12. Disintermediation describes:
- A. the introduction of new intermediaries within the channel structure.
  - B. the introduction of new manufacturers within the channel structure.
  - C. the removal of intermediaries from the channel structure.
  - D. both the first and third answer above
13. What perspectives can a consumer be analysed during the consumer behaviour analysis?
- A. Demand analysis
  - B. Supply analysis
  - C. Digital consumer behaviour
  - D. Acceptability
14. Using a digital channel to offer new product variants or extended products is an example of:
- A. market development.
  - B. diversification.
  - C. product development.
  - D. market penetration.
  - E. None of the above.
15. Matching of internal resources against external demands forms part of:
- A. strategy objective setting.
  - B. strategic analysis.
  - C. strategy implementation.
  - D. strategy definition.
16. The website of an organisation such as Amazon belongs to which category?
- A. Transactional
  - B. Media/Publisher
  - C. Brand building
  - D. Relationship building
  - E. Social network
17. The direct online revenue contribution will be of most relevance to:
- A. a social network.
  - B. a beverages brand.

- C. an online grocery retailer.
  - D. a car manufacturer.
  - E. a portal.
18. The macro-environment force which forces, which influences consumer spending and business performance is
- A. Political
  - B. Legal
  - C. Economic
  - D. Technological
  - E. Social
19. \_\_\_\_\_ is the standard format used to define the text and layout of web pages
- A. HTTP
  - B. HTML
  - C. WWW
  - D. FTP
20. \_\_\_\_\_ is a medium for publishing information and providing services on the Internet
- A. Internet
  - B. World wide web
  - C. Website
  - D. Email
21. Which of the following issues private and public keys?
- A. Secure Electronic Transaction (SET).
  - B. Secure Sockets Layer (SSL).
  - C. Firewall.
  - D. Certificate Authorities (CAs).
22. Which macro-environment factor is an example of globalisation?
- A. Social.
  - B. Economic.
  - C. Legal.
  - D. Political
23. E-government refers to:
- A. government electronic transactions with suppliers, e.g. online sourcing.
  - B. electronic use of petitions by citizens.
  - C. government electronic transactions with citizens, e.g. paying tax online.
  - D. government internal electronic transactions, e.g. secure electronic messaging.
  - E. All of the above
24. Which of the following defines authentication in security?
- A. Are parties to the transaction who they claim to be?
  - B. Checks that the message sent is complete, i.e. that it isn't corrupted.
  - C. Is transaction data protected? Are all non-essential traces of a transaction removed from the public network and all intermediary records eliminated?
  - D. Ensures sender cannot deny sending the message.
  - E. How can threats to the continuity and performance of the system be eliminated?
25. Which of the following defines privacy and confidentiality?
- A. Checks that the message sent is complete, i.e. that it isn't corrupted.
  - B. Ensures sender cannot deny sending the message.
  - C. How can threats to the continuity and performance of the system be eliminated?

- D. Is transaction data protected? Are all non-essential traces of a transaction removed from the public network and all intermediary records eliminated?
  - E. Are parties to the transaction who they claim to be?
26. Which of the following defines non-repudiation?
- A. How can threats to the continuity and performance of the system be eliminated?
  - B. Checks that the message sent is complete, i.e. that it isn't corrupted.
  - C. Is transaction data protected? Are all non-essential traces of a transaction removed from the public network and all intermediary records eliminated?
  - D. Are parties to the transaction who they claim to be?
  - E. Ensures sender cannot deny sending the message.
27. The aspect of security that fails when a denial of service attack occurs is
- A. privacy.
  - B. integrity.
  - C. availability.
  - D. authentication
28. The aspect of security that fails when an e-mail is intercepted is:
- A. privacy.
  - B. integrity.
  - C. authentication.
  - D. availability.
29. \_\_\_\_\_ is a technique for strategic analysis focusing on assessment of propensity for different e-commerce services.
- A. Stage model analysis
  - B. Demand analysis
  - C. SWOT analysis
  - D. Competitor analysis
30. For an existing organisation, typical stages of e-commerce development are:
- A. information collection, image and product information, customer support, transactions.
  - B. image and product information, customer support, transactions, information collection.
  - C. transactions, image and product information, information collection, customer support.
  - D. transactions, image and product information, information collection, customer support.
31. \_\_\_\_\_ is a key e-CRM technique to follow-up a customer when they abandon a shopping cart to encourage them to buy.
- A. Personalisation
  - B. Referral, recommendation or advocacy
  - C. Retention
  - D. Reactivation
32. data is information about how the customer has responded to campaigns.
- A. Campaign history
  - B. Behavioural data
  - C. Transactional data
  - D. Profile data
  - E. None of the above.
33. \_\_\_\_\_ data is information about the purpose of communications to the customer.

- A. Profile data
  - B. Transactional data
  - C. Campaign history
  - D. Behavioural data
  - E. None of the above.
34. Online communities or social networks can assist with CRM through:
- A. researching customer perceptions about products.
  - B. advertising.
  - C. identifying the highest value customers.
  - D. profiling customers.
  - E. None of the above.
35. Which of the following is a ethical constraint from the digital marketing macro-environment?
- A. Opt-in to e-mail required to avoid SPAM.
  - B. Taxation at source of purchase.
  - C. Likelihood of fraudulent transactions.
  - D. Propensity for consumers to purchase online
36. During situation analysis for an organisation's digital marketing, which element of a company's external micro-environment need not to be assessed ?
- A. Question type
  - B. Customer analysis
  - C. Supplier analysis
  - D. Demand analysis
  - E. Intermediary analysis
37. Which actors are considered in the organization's micro-environment?
- A. Customer
  - B. Supplier
  - C. Intermediary
  - D. Competitors
38. \_\_\_\_\_ offers the chance to use business-to-business exchanges to source products at lower costs.
- A. Countermediation
  - B. Reintermediation
  - C. Distintermediation
  - D. Affilimmediation
39. Which of these is the typical sequence of activities in the buying process?
- A. Awareness, supplier search, evaluation, decision.
  - B. Evaluation, awareness, supplier search, decision.
  - C. Awareness, supplier search, decision, evaluation.
  - D. Supplier search, awareness, evaluation, decision.
40. A gateway website with services such as search, directories and content which serves a wide range of audience is a:
- A. horizontal portal.
  - B. vertical portal.
  - C. geographical portal.
  - D. multimedia portal.

**SECTION B: ANSWER THREE (3) OF THE FIVE (5) QUESTIONS. ALL QUESTIONS HAVE 20 MARKS**

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**QUESTION 1**

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- a) Define the following
  - i) Marketing [3 Marks]
  - ii) Digital Marketing [3 Marks]
- b) Compare and contrast the following sets of terms
  - i) eMarketing, internet marketing and digital marketing [6 Marks]
  - ii) eCommerce and eBusiness [4 Marks]
- c) Describe the 4 different digital technologies that have been taken advantage of by the marketers to promote their brands. [4 Marks]

**QUESTION 2**

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- a) What is the Internet? [4 Marks]
- b) How has the internet influenced marketing? [6 Marks]
- c) Explain how the following concepts are related to the Internet
  - i) WWW [2 Marks]
  - ii) Intranet [2 Marks]
  - iii) Extranet [2 Marks]
  - iv) HTTP [2 Marks]
  - v) HTML [2 Marks]

**QUESTION 3**

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- a) Explain what an organisation's micro-environment is [4 Marks]
- b) Describe the four stakeholders in the micro-environment and how they interact. [12 Marks]
- c) Use a graphical illustration of the interactions in b) above. [4 Marks]

**QUESTION 4**

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- a) Why is a digital strategy important? [2 Marks]
- b) What are the three generic phases of an emarketing strategy? [6 Marks]
- c) Explain role of the SOSTAC framework in strategy development by describing the individual components of the framework. [12 Marks]

**QUESTION 5**

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- a) Explain what a customer journey is [4 Marks]
- b) RACE is a framework designed to help engage prospects, customers and fans with brands throughout the customer lifecycle. Explain the four steps in the RACE framework [12 Marks]
- c) Give examples of digital media which can be used in each of the steps above. [4 Marks]

\*\*\*\*\*END OF EXAMINATION\*\*\*\*\*



# THE UNIVERSITY OF ZAMBIA

## GRADUATE SCHOOL OF BUSINESS

January 2021

### BSM4132 CUSTOMER RELATIONSHIP MANAGEMENT

#### FINAL SEMESTER EXAMINATION

**Time Allowed:** Three(3) hours

**Instructions:**

1. Read the instructions carefully.
2. There are three (3) sections in this examination paper; Section A, Section B and Section C. Answer **ALL** questions
3. All questions must be answered in the answer booklet provided.
4. No books, files or mechanical/electronic aids are permitted in the examination room.
5. Answers must be in complete sentences. No credit will be given for any answer that is in point form.

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO.**

**SECTION A: CHOOSE THE CORRECT ANSWER (10 MARKS)**

1. System includes all experiences while using market offering is classified as
  - (a) Customer proposition
  - (b) Value delivery system
  - (c) Product proposition
  - (d) Distinctive proposition
2. Number of customers or potential customers who will help in company's growth is classified as
  - (a) Customer base
  - (b) Retailer base
  - (c) Distributors base
  - (d) Marketers base
3. Any occasion on which brand or product is encountered by end customers is called?
  - (a) Customer touch point
  - (b) Company touch point
  - (c) Retailers touch point
  - (d) Relationship touch point
4. Technique which tries to identify real cost of serving an individual customer is called?
  - (a) Activity based accounting
  - (b) Cost based accounting
  - (c) Price based accounting
  - (d) Turnover based accounting
5. Process of manage information about customers to maximize loyalty is said to be?
  - (a) Company relationship management
  - (b) Supplier management
  - (c) Retailers management
  - (d) Customer relationship management
6. In buyer decision process, percentage of potential customers in a given target market is called?
  - (a) customer funnel



(b) Company funnel

(c) Marketing funnel

(d) Retailers funnel

7. This is an approach to selling goods and services in which a prospect explicitly agrees in advance to receive marketing information.

(a) Customer managed relationship

(b) Data mining

(c) Permission marketing

(d) One-to-one marketing

8. In an Internet context, this is the practice of tailoring Web pages to individual users' characteristics or preferences.

(a) Web services

(b) Customer-facing

(c) Client/server

(d) Personalization

9. This is the processing of data about customers and their relationship with the enterprise in order to improve the enterprise's future sales and service and lower cost.

(a) Clickstream analysis

(b) Database marketing

(c) Customer relationship management

(d) CRM analytics

10. This is a broad category of applications and technologies for gathering, storing, analysing, and providing access to data to help enterprise users make better business decisions.

(a) Data mart

(b) Business information warehouse

(c) Business intelligence

(d) Business warehouse

## **SECTION B: WRITE SHORT NOTES ON THE FOLLOWING (30 MARKS)**

1. Define CRM.

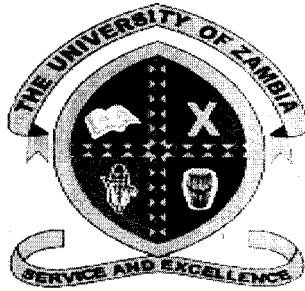
2. Who are the stakeholders of CRM and their roles, responsibilities?

3. What do you mean by customer perception?
4. Distinguish between individual customer and group customer.
5. Mention any two business applications of CRM.
6. What are the strategies for customer acquisition?
7. Define customer retention.
8. Distinguish Analytical CRM and Operational CRM.
9. What is meant by Data warehousing?
10. What is Data Mining?

**SECTION C: EXPLAIN IN DETAIL THE FOLLOWING (60 MARKS)**

- (1) Explain the changing trends in CRM. How is it effectively working in retaining customer base?
- (2) A company wishes to launch new toothpaste, which could prevent tooth cavities and tooth decay. But the toothpaste market is highly crowded with multiple brands. As a marketing executive prepare a market research strategy to attract new customers as well as to retain existing customers, what type of customer relationship management strategy is required so that the company's new brand could be established in the market?
- (3) What are the major support and challenges the organisation faces in implementing CRM system?

**END OF EXAMINATION.**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

### **BSM4132 CUSTOMER RELATIONSHIP MANAGEMENT**

#### **DEFERRED/SUPPLEMENTARY EXAMINATION**

Date: 7<sup>th</sup> April 2021

**Time Allowed:** Three(3) hours

**Instructions:**

1. Read the instructions carefully.
2. There are three (3) sections in this examination paper; Section A, Section B and Section C. Answer **ALL** questions
3. All questions must be answered in the answer booklet provided.
4. No books, files or mechanical/electronic aids are permitted in the examination room.
5. Answers must be in complete sentences. No credit will be given for any answer that is in point form.

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO.**

## SECTION A: CHOOSE THE CORRECT ANSWER (10 MARKS)

1. Why is CRM (Customer Relationship Management) one of the most valuable assets an organization can acquire?

- (A) Since organizations have not been successful in implementing Supply Chain Management systems, they have turned their resources towards CRM.
- (B) CRM has proven to increase customer loyalty and retention and an organization's profitability.
- (C) It is easy for an organization to steal their competitors loyal and devoted customers, therefore organizations need a viable process for targeting competitor's customers.
- (D) Without CRM it is impossible to effectively manage or cross-sell products to customers.

2. The evolution of CRM (Customer Relationship Management) Technologies is reporting, analysing, and predicting.

- (A) True
- (B) False

3. Who are the primary users of Supply Chain Management systems?

- (A) Sales, Marketing, Customer Service
- (B) Accounting, Finance Logistics, and Production
- (C) Customers, Retailer (resellers), Partners, Suppliers, Manufacturers and Distributors
- (D) All of the above

4. What Customer Relationship Management technology, accesses organizational Databases that track similar issues or questions and automatically generate the details to the Customer Service Representative who can then relay them to the customer?

- (A) Contact centre
- (B) Web-based self-service
- (C) Call scripting
- (D) Website personalization

5. Customer churn addresses customer \_\_\_\_\_

- (A) Loyalty
- (B) Purchases
- (C) Profitability
- (D) Size

6. Which of the following is an example of an analytical CRM system?

- (A) Campaign management.
- (B) Business intelligence.
- (C) FAQ
- (D) Loyalty programs.

7. This is an approach to selling goods and services in which a prospect explicitly agrees in advance to receive marketing information.

- (A) Customer managed relationship
- (B) Data mining
- (C) Permission marketing
- (D) One-to-one marketing

8. In an Internet context, this is the practice of tailoring Web pages to individual users' characteristics or preferences.

- (A) Web services
- (B) Customer-facing
- (C) Client/server
- (D) Personalization

9. This is the processing of data about customers and their relationship with the enterprise in order to improve the enterprise's future sales and service and lower cost.

- (A) Clickstream analysis
- (B) Database marketing
- (C) Customer relationship management
- (D) CRM analytics

10. This is a broad category of applications and technologies for gathering, storing, analysing, and providing access to data to help enterprise users make better business decisions.

- (A) Data mart
- (B) Business information warehouse
- (C) Business intelligence
- (D) Business warehouse

**SECTION B: WRITE SHORT NOTES ON THE FOLLOWING (30 MARKS)**

1. Explain what CRM is.
2. Mention some technical benefits of incorporating CRM into an organisation.
3. What are some popular CRM?
4. Explain the different types of CRM.
5. List out factors that can be an obstacle for CRM (Customer Relationship Management/ Manager) success to an organization?
6. Mention what are some of the challenges that an organization might have to face while incorporating CRM?
7. Mention the most important modules in CRM?
8. Explain how CRM can be helpful in handling emails from customers?
9. List out some of the questions that help you decide whether you need a CRM system?
10. What is Data Mining?
11. What are the strategies for customer acquisition?
12. Define customer retention.
13. Distinguish Analytical CRM and Operational CRM.
14. What is meant by Data warehousing?
15. What is meant by customer perception?

**SECTION C: EXPLAIN IN DETAIL THE FOLLOWING (60 MARKS)**

(1) An important part of CRM is identifying the different types of customers and then developing specific strategies for interacting with each customer. Examples of such strategies are developing better relationship with loyal customers, not profitable customers. Explain this statement and give necessary examples.

(2) Up until now CRM has been very effective for most companies because it has focused on building customers' trust and loyalty, ultimately building a strong relationship with the customer through programs that make it easy for the customer to return products and get information from people inside the organization. Argue for or against this statement.

**END OF EXAMINATION.**

THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
FINAL EXAMINATION  
INTRODUCTION TO MACROECONOMIC THEORY (ECN 1215)  
23<sup>RD</sup> SEPTEMBER 2020

TIME ALLOWED: THREE (3) HOURS

INSTRUCTIONS TO THE CANDIDATE

1. *Enter your GSB number on the answer booklet. Do NOT write your name.*
2. *You must not start writing your answers in the booklet until you are told to do so by the invigilator*
3. *Attempt all questions*
4. *Candidates should show calculations and well labelled graphs where appropriate*

## SECTION A: MULTIPLE CHOICE

1. Which of the following describes the circular flow diagram;
  - A. It shows how real GDP is differs from nominal GDP.
  - B. It shows how the prices of factors are determined.
  - C. It shows the effects of inflation in the whole economy.
  - D. It shows the flows between different sectors of the economy.
2. In the circular flow model of a closed economy with no government sector, households,
  - A. receive income from buyers of goods and services.
  - B. receive income from the sale of factors in the goods market.
  - C. pay taxes to the government and receive public goods and services.
  - D. receive income for the sale of factors in the factor market.
3. Injections in the circular flow are;
  - A. investment spending, government spending and exports.
  - B. taxes, imports and investment spending.
  - C. investment spending, government spending and imports.
  - D. consumption expenditure, investment spending and taxes.
4. The most direct way in which money eliminates the need for double coincidence of wants is through its use as a;
  - A. medium of exchange.
  - B. store of value.
  - C. standard of deferred payment.
  - D. unit of account.
5. Money is
  - A. the same as income.
  - B. anything that is generally accepted as a medium of exchange.
  - C. the value of all coins and currency in circulation at any time.
  - D. the same as wealth.
6. The demand for money for speculative purpose is related to the function of money as a;
  - A. medium of exchange.
  - B. store of value.
  - C. unit of account.
  - D. generally acceptable means of payment
7. In terms of the demand for money, the interest rate represents;
  - A. the price borrowing money.
  - B. the rate at which current consumption can be exchanged for future consumption.
  - C. the return on money that is saved for the future.
  - D. the opportunity cost of holding money.



8. In an open market purchase, the Reserve bank.....government bonds which.....commercial banks' reserve.
  - A. buys, increases
  - B. buys, decreases
  - C. buys, maintains
  - D. d sells, increases
9. In the circular flow of income and spending.
  - A. investment results in a decrease in the volume of the income flow.
  - B. taxes result in an increase in the volume of income flow.
  - C. imports result in an increase in the volume of income flow.
  - D. savings result in a decrease in the volume of income flow.
10. If the central bank wants to pursue a contractionary monetary policy, the bank should;
  - A. raise interest rates and sell securities
  - B. lower interest rates and sell securities.
  - C. raise interest rates and buy securities.
  - D. lower interest rates and buy securities.
11. If the cash reserve ratio is increased, the credit multiplier
  - A. will decrease.
  - B. will decrease, as long as banks hold no excess reserves.
  - C. could either increase or decrease.
  - D. will increase.
12. The notion that countries stand to gain more if they trade in the commodity of their lowest opportunity cost is referred to as;
  - A. international trade.
  - B. comparative advantage.
  - C. absolute advantage.
  - D. equal advantage.
13. If the kwacha appreciates against other currencies in the exchange rate market, this will;
  - A. have no effect on the Zambian current account.
  - B. worsen the Zambian current account.
  - C. improve the Zambian current account.
  - D. have an effect depending on the other currencies in the market.
14. Which one of the following correctly explains or defines real GDP?
  - A. Real GDP is nominal GDP adjusted for changes in the price level.
  - B. Real GDP is also called nominal GDP.
  - C. Real GDP measures GDP less depreciation of capital.
  - D. Real GDP will always change when prices change.
15. The CPI for all urban areas in a hypothetical economy was 111.7 at the end of 2018 and 117.3 at the end of 2019, the inflation rate over these two years was?
  - A. 7.1%
  - B. 5.4%
  - C. 4.4%
  - D. 5.0

16. The terms of trade measure
  - A. the income of one country compared to another.
  - B. the quantity of exports of one country compared to another.
  - C. export prices relative to import prices.
  - D. the difference between the value of exports and that of imports.
17. When the Gross Domestic Product is measured
  - A. the total value of final services is subtracted from the value of final goods.
  - B. the total value of locally produced intermediate goods and services is measured in a given period.
  - C. the total value of all final locally produced goods and services is measured in a given period.
  - D. the sum of the values added at each stage of production is lower than the spending on final goods and services.
18. The consumption function relates the consumption expenditure decisions of households to
  - A. investment decisions of firms.
  - B. savings decisions of households.
  - C. the level of disposable income.
  - D. the nominal interest rates.
19. As disposable income increases, consumption expenditure
  - A. increases by the same amount.
  - B. increases by a smaller amount.
  - C. increases by a larger amount.
  - D. remains constant.
20. The value of marginal propensity to consume is
  - A. between -1 and +1
  - B. between zero percent and one percent.
  - C. between 0 and +1.
  - D. between 1 and 10
21. A form of expenditure that does NOT depend on Real GDP or income is called
  - A. equilibrium expenditure.
  - B. induced expenditure.
  - C. autonomous expenditure.
  - D. aggregate expenditure.
22. Assume the marginal propensity to consume 0.8, in a closed economy without government. When
  - A. consumption increases by K5, investment increases by K1
  - B. consumption increases by K5, savings increase by K1.
  - C. investment increases by K1, income increases by K1, income increases by K5.
  - D. investment increases by K1, consumption increases by K5.
23. If the inflation rate was 10% last year and is now 6% for this year, it means
  - A. prices are falling.
  - B. prices are unchanged.
  - C. prices are falling at a slower rate.
  - D. prices are increasing at a slower rate.

24. The Philips curve shows a negative relationship between;
- unemployment and employment.
  - employment and prices.
  - unemployment and inflation.
  - employment and inflation.
25. The.....demand for money arises out of the need to hold money as a medium of exchange. This demand for money is a function of.....
- precautionary; interest rates
  - transactions; national income.
  - speculative; interest rates.
  - precautionary; national income.
  - transactions; interest rates.
26. A tax is progressive if;
- the marginal tax rate decreases as income increases.
  - the average tax rate remains the same for all income levels.
  - the marginal tax rate increases as income increases.
  - only the average tax increases as the income increases.
27. Which one of the following identities is correct
- GDP at market price + taxes on products-subsidies on products=GDP at basic prices.
  - GDP at basic prices+ taxes on production-subsidies on products= GDP at factor cost.
  - GDP at factor cost+ taxes on products- subsidies on products=GDP at basic prices.
  - GDP at market price + taxes on production- subsidies on products=GDP at factor cost.
28. The marginal propensity to import
- increases as income increases
  - decreases as income increases
  - remains constant as income increases.
29. Given the import function  $Z=300+2/3Y$
- the marginal propensity to save is  $1/3$
  - the induced component is 300
  - imports are seen as autonomous
  - $2/3$  is the proportion of any increase in income that is spent on imports.
30. Aggregate demand will increase if
- consumption falls
  - investment falls
  - export falls
  - import falls
31. Stagflation is a combination of
- low inflation and low unemployment
  - high unemployment and high inflation
  - high inflation and low unemployment
  - low inflation and high unemployment
32. If people are made unemployed because of a fall in aggregate demand, this is known as.
- frictional unemployment
  - Seasonal unemployment
  - cyclical unemployment

- D. structural unemployment
33. The labour force is made up of
- A. the number of people employed minus the number of people unemployed
  - B. the number of people employed plus the number of people unemployed
  - C. the number of people employed only
  - D. the whole population in a country
34. Economic growth can be illustrated by an outward shift of the
- A. aggregate supply curve
  - B. production possibility curve
  - C. Philips curve
  - D. aggregate expenditure curve
35. Demand management policy measures tend to affect
- A. output and level of employment in opposite directions
  - B. output and the price level in opposite directions
  - C. the level of employment and the price level in opposite directions
  - D. the price level and the level of unemployment in opposite directions
36. An increase in deficit spending by the government that is financed by domestic borrowing would most likely
- A. increase aggregate demand, but at the expense of lower investment spending
  - B. decrease aggregate demand, but stimulate investment spending
  - C. increase aggregate demand, and stimulate investment spending
  - D. decrease aggregate demand, as well as investment spending
37. A decrease in the rate of inflation
- A. causes the nominal interest rate to increase
  - B. causes the real interest rate to decrease
  - C. causes the real interest rate to increase
  - D. has no effect on either the real or nominal interest rate
38. If the inflation rate was 10% last year and is now 6% for this year, it means
- A. prices are falling
  - B. prices are unchanged
  - C. prices are falling at a slower rate
  - D. prices are increasing at a slower rate
39. Available data indicate that the level of real GDP will continue to decrease over the next few months. This suggests that the amount of ..... unemployment will be .....
- A. structural, decreasing
  - B. frictional, increasing
  - C. cyclical, increasing
  - D. seasonal, increasing
40. The problem of scarcity in economics:
- A. exists only in economies which rely on the market mechanism.
  - B. could be eliminated if prices are forced to fall.
  - C. means that there are shortages of some goods.
  - D. exists because there are insufficient resources to satisfy human wants.

## **SECTION B**

Indicate whether each of the following statements is **TRUE**, **FALSE** or **UNCERTAIN** and **DO NOT JUSTIFY** your answer

- 1) Exogenous variable is a variable whose value is determined inside the model and factor to be explained in the model
- 2) Consumption function can never be a relationship between consumption (C) and interest rate (r).
- 3) Consumption (C) and interest rate (r) are positively related.
- 4) National income Y received by households, by definition, is either invested I OR consumed C.
- 5) Actual expenditure is the amount individuals, firms and the government spend on goods and services (GDP).
- 6) An increase in government purchases of DG raises planned expenditure by that amount for any given level of income.
- 7) When there is excess supply, i.e., planned output > planned expenditure, firms will reduce output to restore equilibrium
- 8) When there is excess demand, i.e., planned expenditure > planned output, firms will increase output to restore equilibrium
- 9) Autonomous Consumption C' exists even if there is no income. This can be done by dis-saving, i.e., using the past saving
- 10) Saving will be negative when income is zero
- 11) Marginal Propensity to Consume (MPC) is defined as the ratio of total consumption C to total income Y
- 12) Autonomous Investment I' is investment that is related to the income level and is determined by forces outside the model, like interest rate.
- 13) Average Propensity to Save (APS) is defined as the change in saving per unit change in disposable income Yd OR income Y (in a 2-sector model)
- 14) "Thriftiness (the desire to save), while a virtue for the economy, is disastrous for an individual"
- 15) The larger the marginal propensity to spend, the smaller the induced change in spending
- 16) Exports add to aggregate demand and imports reduce aggregate demand and these changes are impacted by the multiplier
- 17) Exogenous Variable is a variable whose value is determined by forces outside the model
- 18) A proportional tax is one where everyone pays a fixed portion of their income.
- 19) When the government spends more than it receives, it runs a deficit.
- 20) The government can influence the circular flow of income through taxes (T), a withdrawal from the circular flow of income, or through government expenditure (G), an injection into the circular flow.

## SECTION C:

### QUESTION ONE

- List five (5) main functions of the Bank of Zambia
- Explain the three (3) functions of money
- Give an account of the three (3) monetary policy instruments the central bank uses to influence money supply and interest rates. Clearly explain both expansionary and contractionary monetary policy.
- Explain how the government can increase the level of economic activity using fiscal policy if the economy has low economic activity

### QUESTION TWO

- List and briefly explain the four (4) types of unemployment
- Use the following data for two different years for an economy that produces and consumes bicycles and books to answer the questions.

	Year 2001	Year 2013
Price of a bicycle	K750	K1500
Price of a book	K25	K40
Number of bicycles produced	300	250
Number of books produced	4000	3500

- What is the nominal GDP in year 2001?
  - If year 2001 is used as the base year, what is the real GDP in 2013?
  - There are a number of problems associated with fixed-weight price indexes. Please state and briefly discuss at least two of these problems.
  - What are the differences between CPI and GDP deflator?
- c) The following is the information from national income accounts for the economy of Dundumwezi for the year 2019 measured in millions of dollars.
- |                                   |       |
|-----------------------------------|-------|
| GNP at basic prices.....          | 12000 |
| Consumption.....                  | 7000  |
| Investment.....                   | 550   |
| Consumption of fixed capital..... | 85    |
| Imports.....                      | 1200  |
| Indirect taxes .....              | 220   |
| Government purchases.....         | 2800  |
| Factor payments from abroad.....  | 1200  |
| Factor payments to abroad.....    | 1950  |

Based on the information given above for Dundumwezi, compute the following;

- Gross National Product at market prices
- Gross Domestic Product at market prices
- Net export
- Exports
- Net National Product at Market prices
- National Income

### QUESTION THREE

You are given the following data for a hypothetical simple closed economy:

$$C = 250 + 0.85Y$$

$$I = 150$$

$$G = 200$$

where  $C$  is consumer expenditure,  $Y$  is national income,  $G$  is government expenditure on goods and services and  $I$  is investment expenditure. All amounts are in K million.

- i. Derive a savings function using the information for this hypothetical economy
- ii. Calculate the value of the multiplier
- iii. Calculate the autonomous spending for this hypothetical economy
- iv. Calculate the equilibrium level of national income
- v. Calculate consumer savings at the equilibrium level of national income
- vi. Calculate the value of injections at the equilibrium level of national income
- vii. Calculate the new level of national income if government expenditure increased by K10 million

### QUESTION FOUR

- a) The following information about a Keynesian model of a closed economy without a government is given;

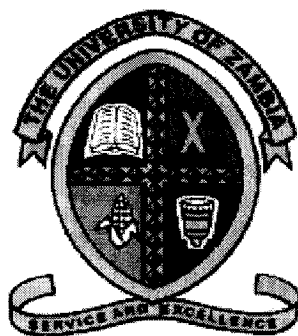
$$\text{Autonomous Consumption (A)} = 20$$

$$\text{At equilibrium, consumption spending} = 80 \text{ and investment spending is } = 40$$

Draw a diagram of the model and clearly indicate the values of total autonomous expenditure and the equilibrium level of income.

- b) Use a well labelled diagram to illustrate the effect of an increase in proportional income tax on the equilibrium level of income in a simple Keynesian model of a closed economy
- c) Illustrate the linkages between the foreign sector and the government, households and firms using the circular flow model of income and spending.
- d) List the five (5) effects of inflation

**END OF FINAL EXAMINATION**



**UNIVERSITY OF ZAMBIA  
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES  
DEPARTMENT OF ECONOMICS**

**BACHELOR OF ARTS**

**2019/2020 ACADEMIC YEAR**

**ECN 2215: INTERMEDIATE MACROECONOMIC THEORY**

**END OF YEAR FINAL EXAMINATIONS**

**December, 2020**

**TIME ALLOWED: TWO (2) HOURS**

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**INSTRUCTIONS:**

1. There are five (5) questions in this paper
2. Answer ANY FOUR (4) questions

**Note:** All answers must be written in the answer booklet provided

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**DO NOT TURN OVER UNTIL INSTRUCTED**

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### QUESTION ONE

Below is an IS-LM Model:

$$C = 250 + 0.2Y_d$$

$$I = 150 + 0.2Y - 1000r$$

$$G = 250$$

$$T = 250$$

$$\left(\frac{M}{P}\right)^d = 2Y - 8000r$$

$$\left(\frac{M}{P}\right)^s = 1600$$

- Derive the IS and LM relations
- Find the equilibrium level of income (Y) and interest rate (r).
- Find the values of Consumption and Investment in equilibrium.
- Suppose there is an expansionary monetary policy and money supply  $\left(\frac{M}{P}\right)^s$  increases to 1840. Find the effect of this on equilibrium levels of income (Y), interest rate (r), consumption and investment.

### QUESTION TWO

- Explain the concept of consumption smoothing in the context of the;
  - Ando- Modigliani Life Cycle Hypothesis
  - Friedman's Permanent Income Hypothesis
- Write concise notes on the following and draw appropriate diagrams where appropriate;
  - Efficiency wage theory
  - Adaptive Expectations
  - Rational Expectations
  - The sticky- wage model of aggregate supply
  - The sticky- price model of aggregate supply

### QUESTION THREE

- Define stabilization policy
- Using the IS-LM model, explain fully the following (*Hint: ensure your diagrams are well labelled*);
  - An increase in government purchases
  - An increase in money supply

#### QUESTION FOUR

- a) Graphically derive the IS curve, assuming a decrease in interest rate (*Hint: ensure that you draw the investment function and Keynesian cross diagram separately in your derivation. Further, ensure that you give the full explanation*)
- b) With the aid of a diagram, explain the Real- Wage rigidity and Structural Unemployment

#### QUESTION FIVE

- a) Consider a small open classical economy. Use an appropriate model and graph to explain in detail what happens to the real exchange rate if the Government:
- Engaged in expansionary fiscal policy
  - Engaged in contractionary fiscal policy
- b) Consider a Neoclassical model of an economy affected by the COVID-19 Pandemic. Use the information given below to answer the following questions:

$$\text{Production function } Y = 10 \sqrt{KL}$$

$$K = 100, L = 25 \quad (\text{capital (K) and labour (L)})$$

$$r = 5\% \quad (\text{domestic interest rate})$$

$$P = 100 \quad (\text{Domestic price level}), \quad P^* = 110 \quad (\text{foreign price level})$$

$$M = 1000 \quad (\text{supply of money})$$

$$C = 75 + 0.5(Y - T)$$

$$I = 150 - 4r$$

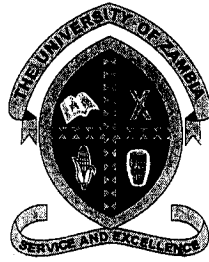
$$G = 50, \quad T = 50$$

$$NX = 50 - 2E$$

Where  $E$  represents real exchange rate and  $e$  represents nominal exchange rate.

- Calculate this economy's trade balance and show it on a savings-investment diagram
- Calculate the net capital outflow, real and nominal exchange rate
- Due to the global pandemic of COVID-19, many workers die and the labour force reduces to 16. Calculate the new trade balance and real exchange rate.
- Assuming a constant velocity of money, by how much should this economy's central bank adjust money supply to achieve its target of 0% inflation given the COVID-19 pandemic?

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**  
**UNDERGRADUATE**  
**JULY 2019 COHORT (FULL TIME/PART TIME)**  
**SESSIONAL EXAMINATION**  
**DATE: 14<sup>TH</sup> SEPTEMBER, 2020**  
**GSB 1031: FINANCIAL ACCOUNTING**

**EXAM TIME: 09:00 HOURS**

**DURATION: THREE (3) HOURS**

**INSTRUCTIONS:**

1. Read Each and Every Question CAREFULLY and UNDERSTAND the Information Given.
2. The Paper has a Total Number of Six (6) Questions.
3. Answer a Total of FOUR (4) Questions. Question ONE (1) is Compulsory.
4. The Paper Carries a Total of 100 Marks
5. Marks Allocation Indicates the Depth of the Answer Expected.

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

### **QUESTION ONE:**

From the following information, prepare the manufacturing, trading and profit and loss account for the year ending 31 December 2019 and the balance sheet as at 31 December 2019 for the firm of Trade King Limited.

<b><u>Particulars</u></b>	<b><u>Debit (Kwacha)</u></b>	<b><u>Credit(Kwacha)</u></b>
Purchase of raw materials	129000	
Fuel and light	10500	
Administration salaries	8500	
Factory wages	29500	
Carriage outwards	2000	
Rent and business rates	10500	
Sales		241000
Return inward	3500	
General office expenses	4500	
repairs to plant and machinery	4500	
Stock at 1 January 2019:		
Raw materials	10500	
Work in progress	7000	
Finished goods	11500	
sundry creditors		18500
capital amount		228500
Freehold premises	205000	
Plant and machinery	4000	
Debtors	10000	

Accumulated provision for depreciation on plant and machinery		4000
Cash in hand	5500	
Total	492000	492000

Make provision for the following:

(i) Stock in hand at 31 December 2019"

Raw materials K12500

Work in progress K5500

Finished goods K13000

(ii) Depreciation of 10% on plant and machinery using the straight line method.

(iii) 80% of fuel and light and 75% of rent and rates to be charged to manufacturing

(iv) Doubtful debts provision: 5% of sundry debtors

(v) K2000 outstanding for fuel and light

(vi) Rent and business rates paid in advance K2500

[Total :25 Marks]

## QUESTION TWO:

Enter the following in the three column cash book of an office supply shop. balance off the cash book at the end of the month and show the discount accounts in the general ledger.

2019

May 1 Balances brought forward: cash K840; Bank K9880

May 2 The following paid us by cheque, in each case deducting a 5 percent cash discount: S Banda K1740; L Phiri K640; G Chanda K880; M Sinkala K2080

May 3 Cash sales paid direct in to the bank K1480

May 5 Paid rent by cash K680

May 6 We paid the following accounts by cheque, in each case deducting  $2\frac{1}{2}$  percent cash discount: M Sakala K 720; G Zulu K1920; F Benzu K800

May 8	Withdrew cash from the bank for business use K800
May 10	Cash sales K2520
May 12	Mwansa paid us their account of K560 by cheque less K8 cash discount
May 14	Paid wages by cash K1080
May 16	We paid the following accounts by cheque: Natasha K620 less cash discount K30; Robert K824 less cash discount K24
May 20	Bought fixtures by cheque K8640
May 24	Bought lorry paying by cheque K28600
May 29	Received K648 cheque from Danny
May 30	Cash sales K1960
May 30	Bought stationary paying by cash K112

[Total :25 Marks]

### **QUESTION THREE:**

On 4 December 2019, Mr Edward Msendo received his monthly bank statement for November 2019. The statement showed the following.

#### **ZANACO BANK**

##### **Mr Edward Msendo: Statement of Account**

<b>Date</b>	<b>Particulars</b>	<b>Debits</b>	<b>Credits</b>	<b>Balance</b>
<b>2019</b>		<b>K'000</b>	<b>K'000</b>	
<b>K'000</b>				
Nov 1	Balance			1,862
Nov 5	417864	243		1,619
Nov 5	Dividend		26	1,645
Nov 5	Bank Giro Credit		212	1,857
Nov 8	417866	174		1,683
Nov 10	417867	17		1,666
Nov 11	Sundry Credit		185	1,851
Nov 14	Standing Order	32		1,819

Nov 20	417865	307	1,512
Nov 20	Bank Giro Credit	118	1,630
Nov 21	417868	95	1,535
Nov 21	417870	161	1,374
Nov 24	Bank charges	18	1,356
Nov 27	Bank Giro Credit	47	1,403
Nov 28	Direct Debit	88	1,315
Nov 29	417873	12	1,303
Nov 29	Bank Giro Credit	279	1,582
Nov 30	417871	25	1,557

His cash book for the corresponding period showed:

#### CASH BOOK

2019	K'000	2019	Cheque no	K'000
Dec 1. Balance b/d	1,862	Dec 1. Electricity	864	243
Dec 4. J Shanga	212	Dec 2. P Silungwe	865	307
Dec 9. M Liempe	185	Dec 5. D Masopela	866	174
Dec 19. G Hunsungule	118	Dec 6. A Yohane	867	17
Dec 26. M Mwewa	47	Dec 10. T Luyanga	868	95
Dec 27. J Sibusiso	279	Dec 14. B Chikopa	869	71
Dec 29. V Tembo	98	Dec 16. Rent	870	161
Dec 30. K Sikasanzi	134	Dec 20. P Silungwe	871	25
		Dec 21. L Phiri	872	37
		Dec 22. W Simoonga	873	12
		Dec 31. Balance c/d		1,793
	<u>2,935</u>			<u>2,935</u>

#### Required

- A. Show a revised cash book balance as at 30 November 2019 (12 Marks)
- B. Using a bank reconciliation statement reconcile the closing balances in the bank statement and the cash book (13 Marks)

[Total :25 Marks]

#### **QUESTION FOUR:**

Discuss the following accounting concepts;

- |                              |             |
|------------------------------|-------------|
| a) The Going Concern Concept | (2.5 Marks) |
| b) The Accruals Concept      | (2.5 Marks) |
| c) Prudence Concept          | (2.5 Marks) |
| d) Consistency Concept       | (2.5 Marks) |
| e) Materiality Concept       | (2.5 Marks) |
| f) Historical Cost Concept   | (2.5 Marks) |
| g) Money Measurement Concept | (2.5 Marks) |
| h) Dual Aspect Concept       | (2.5 Marks) |
| i) Business Entity Concept   | (2.5 Marks) |
| j) Time Interval Concept     | (2.5 Marks) |

#### **QUESTION FIVE:**

- a) Enter the following transactions in personal accounts only. Bring down the balances at the end of the month. After completing this, state which of these balances represent debtors and which are creditors

**2019**

- |        |   |
|--------|---|
| May 1  | Credit sales G Phiri K620; K Sinkala K84; F Msendo K2200; M Benzu K618            |
| May 2  | Credit purchases from T Banda K380; J Chanda K126; P Sakala K420; F Chileshe K380 |
| May 8  | Credit sales K Sinkala K322; F Msendo K448  |
| May 9  | Credit purchases from J Chanda K430; F Chileshe K328                              |
| May 10 | Goods returned to us by F Msendo K62; M Benzu K164                                |
| May 12 | Cash paid to us by M. Benzu K454  |
| May 15 | We returned goods to T Banda K30; F Chileshe K42                                  |
| May 19 | We received cheques from F Msendo K1500; G Phiri K620                             |



- May 21      We sold goods on credit to G Phiri K180; K Sinkala K860
- May 28      We paid by the cheque the following: T Banad K350; F Chileshe K200; P Sakala K360
- May 31      We returned goods for F Chileshe K36

**[Total :15 Marks]**

- b) You are to enter up the sales, purchases, returns inwards and returns outwards day books from the following details, then to post the items to the relevant accounts in the sales and purchase ledger.

**2019**

- May1      Credit sales: T Phiri K112; L Sinkala K296; K Msendo K290;
- May 3      Credit purchases: P Banda K288; H Chanda K50; B Chileshe K132
- May 7      Credit sales: K Sakala K178; N Chisanga K156; N Lubemba K514
- May 9      Credit purchases: B Chanda K48; H Chileshe K116; H Lubemba K246
- May 11      Goods returned to us by to: P Banda K24; B Chileshe K44
- May 14      Goods returned to us by to: T Phiri K10; K Msendo K22; K Sakala K28
- May 17      Credit purchases: B Chanda K108; H Chileshe K130; H Lubemba K150
- May 20      Goods returned to us by to: B Chileshe K28
- May 24      Credit sales: T Phiri K114; L Sinkala K130; K Msendo K290;
- May 28      Goods returned to us by N Chisanga
- May 31      Credit sales: N Lubemba K110

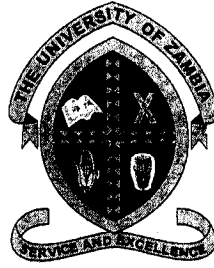
**[Total :10 Marks]**

**QUESTION 6:**

Show the journal entries necessary to correct the following errors:

- (a) A sale of goods K412 to T More had been entered in T Mone's account.
- (b) The purchase of a machine on credit from J Frank for K619 had been completely omitted from our books.
- (c) The purchase of a computer for K550 had been entered in error in the Office Expenses account.
- (d) A sale of K120 to B Wood had been entered in the books, both debit and credit, as K102.
- (e) Commission received K164 had been entered in error in the Sales account.
- (f) A receipt of cash from T Blair K68 had been entered on the credit side of the cash book and the debit side of T Blair's account.
- (g) A purchase of goods K372 had been entered in error on the debit side of the Drawings account.
- (h) Discounts Allowed K48 had been entered in error on the debit side of the Discounts Received account.

[Total : 25 Marks]



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**  
**UNDERGRADUATE**  
**FEBRUARY 2020 COHORT (FULL TIME/PART TIME)**  
**SESSIONAL EXAMINATION**  
**DATE: 26<sup>TH</sup> JANUARY, 2021**  
**GSB 1031: FINANCIAL ACCOUNTING**

**EXAM TIME: 14.00 HOURS**

**DURATION: THREE (3) HOURS**

**INSTRUCTIONS:**

1. Read Each and Every Question CAREFULLY and UNDERSTAND the Information Given.
2. The Paper has a Total Number of Six (6) Questions.
3. Answer a Total of FOUR (4) Questions. Question ONE (1) is Compulsory.
4. The Paper Carries a Total of 100 Marks
5. Marks Allocation Indicates the Depth of the Answer Expected.

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

- (b) Office expenses owing K120.
- (c) Provide for depreciation: motor 25 per cent of cost, office equipment 20 per cent of cost.
- (d) Charge interest on capitals at 5 per cent.
- (e) Charge interest on drawings: Simon K150; Charles K100.

### **QUESTION TWO(25 marks)**

Write up a two-column cash book for a second-hand bookshop from the following:

2019

Nov 1 Balance brought forward from last month: Cash K147.5; Bank K2,120.

- " 2 Cash sales K155.
- " 3 Took K100 out of the cash till and paid it into the bank.
- " 4 John paid us by cheque K97.
- " 5 We paid for postage stamps in cash K40.
- " 6 Bought office equipment by cheque K155.
- " 7 We paid Ruth by cheque K47.
- " 9 Received business rates refund by cheque K57.5.
- " 11 Withdrew K75 from the bank for business use.
- " 12 Paid wages in cash K200.
- " 13 Cash sales 215.
- " 14 Paid motor expenses by cheque K40.5.
- " 16 Judy lent us K750 in cash.
- " 20 Kelvin paid us by cheque K87.
- " 28 We paid general expenses in cash K17.5.
- " 30 Paid insurance by cheque K160.

### **QUESTION THREE(25marks)**

(A) What do you mean by rectification of errors? Explain the types of errors.(10marks)

(B) You have extracted a trial balance and drawn up accounts for the year ended 31 December 2017. There was a shortage of K39 on the credit side of the trial balance, a suspense account being opened for that amount.

During 2018 the following errors made in 2017 were found:

**QUESTION ONE(25 marks)**

Simon and Charles are in partnership. They share profits in the ratio: Simon 70 per cent; Charles 30 per cent. The following trial balance was extracted as at 31 December 2017.

	<i>Dr</i>	<i>Cr</i>
	K	K
Office equipment at cost	4,600	
Motor vehicles at cost	10,700	
Provision for depreciation at 31.12.2016:		
Motor vehicles		6,400
Office equipment		1,800
Stock at 31 December 2016	19,205	
Debtors and creditors	20,970	16,108
Cash at bank	1,059	
Cash in hand	158.5	
Sales		90,200
Purchases	68,340	
Salaries	13,700	
Office expenses	1,065	
Discounts allowed	156	
Current accounts at 31.12.2016		
Simon		3,691
Charles		3,504.5
Capital accounts: Simon		25,000
Charles		10,000
Drawings: Simon	8,750	
Charles	8,000	
	<u>156,703.5</u>	<u>156,703.5</u>

**Required:**

Draw up a set of final accounts for the year ended 31 December 2017 for the partnership.

The following notes are applicable at 31 December 2017.

(a) Stock 31 December 2017 K20, 656.

- (i) K62.5 received from sales of old office equipment has been entered in the sales account.
- (ii) Purchases day book had been overcast by K5.
- (iii) A private purchase of K70 had been included in the business purchases.
- (iv) Bank charges K11 entered in the cash book have not been posted to the bank charges account.
- (v) A sale of goods to Kelvin K115 was correctly entered in the sales book but entered in the personal account as K160.

**Required:**

- (a) Show the requisite journal entries to correct the errors.(5marks)
- (b) Write up the suspense account showing the correction of the errors.(5marks)
- (c) The net profit originally calculated for 2017 was K14,200. Show your calculation of the correct figure.(5marks)

**QUESTION FOUR(25marks)**

(A) Benson entered into a joint venture with Joseph for the purchase and sale of robot mowers. They agreed that profits and losses should be shared equally.

The following transactions took place:

- (a) Benson purchased mowers for K60,200 and paid carriage K160.
- (b) Joseph purchased mowers for K7,430 and paid carriage K42.
- (c) Joseph paid to Benson K35,000.
- (d) Benson sold mowers for K52,295 and sent a cheque for K25,000 to Joseph.
- (e) Joseph sold for K9,600 all the mowers he had purchased.
- (f) The unsold mowers in the possession of Benson were taken over by him at a valuation of K20,000.
- (g) The amount due from one venturer to the other was paid and the joint venture was dissolved.

**You are required to prepare:**

- (i) a statement to show the net profit or loss of the joint venture(5 marks)
- (ii) the accounts for the joint venture in the books of Benson and Joseph.(10marks)

(B) 1 January 2017, Stock of raw materials	4,000
31 December 2017, Stock of raw materials	5,250
1 January 2017, Work in progress	1,750
31 December 2017, Work in progress	2,100
Year to 31 December 2017:	
Wages: Direct	19,800
Indirect	12,750
Purchase of raw materials	43,500
Fuel and power	4,950
Direct expenses	700
Lubricants	1,500
Carriage inwards on raw materials	1,000
Rent of factory	3,600
Depreciation of factory plant and machinery	2,100
Internal transport expenses	900
Insurance of factory buildings and plant	750
General factory expenses	1,650

**Required,**

Prepare a manufacturing for the year ended 31 December 2017.(10marks)

#### **QUESTION FIVE(25marks)**

Milimo and Memory, who share profits and losses equally, decide to dissolve their partnership as at 30 June 2011. Their balance sheet on that date was as follows:

	K	K
Buildings		40,000
Tools and fixtures		<u>1,450</u>
		41,450
Debtors	4,200	
Cash	<u>300</u>	
	4,500	
Sundry creditors	<u>(2,050)</u>	

(7) Traders' credits totalling K105.05 have been credited in the bank statement on 26 October 2019, but not yet recorded in the cash book.

(8) A standing order payment of K7.50 on 17 October 2019 to Countryside Publications has been recorded in the bank statement but is not mentioned in the cash book

**Required:**

(a) Prepare a computation of the balance at bank to be included in Eric's balance sheet as at 31 October 2019. (15marks)

(b) Prepare a bank reconciliation statement as at 31 October 2019 for Eric (10marks).



	<u>2,450</u>
	<u>43,900</u>
Capital account: Milimo	26,340
Memory	<u>17,560</u>
	<u>43,900</u>

The debtors realised K4,100, the buildings K33,000 and the tools and fixtures K900. The expenses of dissolution were K200 and discounts totalling K150 were received from creditors.

**Required:**

Prepare the accounts necessary to show the results of the realisation and of the disposal of the cash.

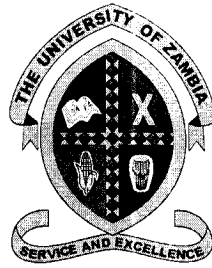
**QUESTION SIX(25 Marks)**

In the draft accounts for the year ended 31 October 2019 of Eric, garage proprietor, the balance at bank according to the cash book was K447.34 in hand.

Subsequently the following discoveries were made:

- (1) Cheque number 176276 dated 3 September 2019 for K155.42 in favour of Gift Limited has been correctly recorded in the bank statement, but included in the cash book payments as K150.92.
- (2) Bank commission charged of K84.78 and bank interest charged of K54.55 have been entered in the bank statement on 23 October 2019, but not included in the cash book.
- (3) The recently received bank statement shows that a cheque for K14.655 received from Timothy and credited in the bank statements on 9 October 2019 has now been dishonoured and debited in the bank statement on 26 October 2019. The only entry in the cash book for this cheque records its receipt on 8 October 2019.
- (4) Cheque number 177145 for K7.55 has been recorded twice as a credit in the cash book.
- (5) Amounts received in the last few days of October 2019 totalling K947.8 and recorded in the cash book have not been included in the bank statements until 2 November 2019.
- (6) Cheques paid according to the cash book during October 2019 and totalling K197.9 were not presented for payment to the bank until November 2019.

*Sup*



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**  
**UNDERGRADUATE**  
**FEB COHORT (FULL TIME/PART TIME)**  
**SUPPLEMENTARY EXAMINATION**  
**DATE: 6<sup>TH</sup> April, 2021**  
**GSB 1031: FINANCIAL ACCOUNTING**

**EXAM TIME: 09:00 HOURS**  
**HOURS**

**DURATION: THREE (3)**

**INSTRUCTIONS:**

1. Read Each and Every Question CAREFULLY and UNDERSTAND the Information Given.
2. The Paper has a Total Number of Six (6) Questions.
3. Answer a Total of FOUR (4) Questions. Question ONE (1) is Compulsory.
4. The Paper Carries a Total of 100 Marks
5. Marks Allocation Indicates the Depth of the Answer Expected.

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

### QUESTION ONE

E Wilson is a manufacturer. His trial balance at 31 December 20X2 is as follows:

	k	k
Delivery van expenses	1,760	
Lighting and heating: Factory	7,220	
Office	1,490	
Manufacturing wages	72,100	
General expenses: Factory	8,100	
Office	1,940	
Sales reps: commission	11,688	
Purchase of raw materials	57,210	
Rent: Factory	6,100	
Office	2,700	
Machinery (cost k40,000)	28,600	
Office equipment (cost k9,000)	8,200	
Office salaries	17,740	
Debtors	34,200	
Creditors		9,400
Bank	16,142	
Sales		194,800
Van (cost k6,800)	6,200	
Stocks at 31 December 20X1:		
Raw materials		
	13,260	
Finished goods	41,300	
Drawings	24,200	
Capital		155,950
	360,150	360,150

Prepare the manufacturing, trading and profit and loss accounts for the year ended 31 December 20X2 and a balance sheet as at that date. Give effect to the following adjustments:

- 1 Stocks at 31 December 20X2: raw materials k14,510; finished goods k44,490. There is no work in progress.
- 2 Depreciate machinery k3,000; office equipment k600; van k1,200.
- 3 Manufacturing wages due but unpaid at 31 December 20X2 k550; office rent prepaid k140.

## **QUESTION TWO**

A three-column cash book for a wine wholesaler is to be written up from the following details, balance off, and the relevant discount accounts in the general ledger shown.

20X8

Mar

1 Balances brought forward: Cash k620; Bank k7,142.

2 The following paid their accounts by cheque, in each case deducting 5 per cent cash discounts: G Slick k260; P Fish k320; T Old k420 (all amounts are pre-discount).

4 Paid rent by cheque k430.

6 F Black lent us k5,000 paying by cheque.

8 We paid the following accounts by cheque in each case deducting a 2.5 per cent cash discount: R White k720; G Green k960; L Flip k1,600 (all amounts are pre-discount).

10 Paid motor expenses in cash k81.

12 J Pie pays his account of k90, by cheque k88, deducting k2 cash discount.

15 Paid wages in cash k580.

18 The following paid their accounts by cheque, in each case deducting 5 per cent cash discount: A Pony k540; B Line & Son k700; T Owen k520 (all amounts are pre-discount).

21 Cash withdrawn from the bank k400 for business use.

24 Cash Drawings k200.

25 Paid W Peat his account of k160, by cash k155, having deducted k5 cash discount.

29 Bought fixtures paying by cheque k720.

31 Received commission by cheque k120

### QUESTION THREE

The bank statement for R Hood for the month of March 20X6 is:

20X6		Dr	Cr	Balance
Mar	1 Balance			4,200 O/D
	8 T MacLeod	184		4,384 O/D
	16 Cheque		292	4,092 O/D
	20 W Milne	160		4,252 O/D
	21 Cheque		369	3,883 O/D
	31 G Frank: trader's credit		88	3,795 O/D
	31 TYF: standing order	32		3,827 O/D
	31 Bank charges	19		3,846 O/D

The cash book for March 20X6 is:

20X6	Dr	k	20X6	Cr	k
Mar	16 G Philip	292	Mar	1 Balance b/d	4,200
	21 J Forker	369		6 T MacLeod	184
	31 S O'Hare	192		30 W Milne	160
	31 Balance c/d	4,195		30 S Porter	504
		<u>5,048</u>			<u>5,048</u>

**You are required to:**

- (a) Write the cash book up to date, and
- (b) Draw up a bank reconciliation statement as on 31 March 20X6

### QUESTION FOUR

Your bookkeeper extracted a trial balance on 31 December 20X5 which failed to agree by k210, a shortage on the credit side of the trial balance. A suspense account was opened for the difference.

In January 20X6 the following errors made in 20X5 were found:

- (i) Sales day book had been undercast by k200.
- (ii) Sales of k610 to T Vantaira had been debited in error to T Ventura's account.
- (iii) Rent account had been undercast by k90.
- (iv) Discounts Allowed account had been overcast by k100.
- (v) The sale of a computer at net book value had been credited in error to the Sales account k230.

**You are required to:**

- (a) Show the journal entries necessary to correct the errors.
- (b) Draw up the suspense account after the errors described have been corrected.

(c) If the net profit had previously been calculated at k31,400 for the year ending 31 December 20X5, show the calculations of the corrected net profit.

### **QUESTION FIVE**

Sage and Onion are trading in partnership, sharing profits and losses and equally. Interest at 5% per annum is allowed or charged on both the capital account and the current account balances at the beginning of the year. Interest is charged on drawings at 5% per annum. The partners are entitled to annual salaries of: Sage k12,000; Onion k8,000.

Required:

From the information given below, prepare the partnership profit and loss account for the year ended 31 December 20X1, and the balance sheet as at that date.

#### **Sage and Onion**

#### **Trial Balance as at 31 December 20X1**

	Dr	Cr
Capital accounts: Sage		100,000
Onion		50,000
Current accounts: Sage		2,000
Onion	600	
Cash drawings for the year: Sage	15,000	
Onion	10,000	
Freehold premises at cost	50,000	
Stock at 1 January 20X1	75,000	
Fixtures and fittings at cost	15,000	
Purchases and purchase returns	380,000	12,000
Bank	31,600	
Sales and sales returns	6,000	508,000
Trade debtors and trade creditors	52,400	33,300
Carriage inwards	21,500	
Carriage outwards	3,000	
Staff salaries	42,000	
VAT		8,700
Office expenses	7,500	
Provision for doubtful debts		2,000
Advertising	5,000	
Discounts received		1,000
Discounts allowed	1,200	
Bad debts	1,400	
Rent and business rates	2,800	
Accumulated provision for depreciation of fixtures and fittings		3,000
	<u>720,000</u>	<u>720,000</u>

At 31 December 20X1:

- (a) Stock on hand was valued at k68,000.
- (b) Purchase invoices amounting to k3,000 for goods included in the stock valuation at (a) above had not been recorded.
- (c) Staff salaries owing k900.
- (d) Business rates paid in advance k200.
- (e) Provision for doubtful debts to be increased to k2,400.
- (f) Goods withdrawn by partners for private use had not been recorded and were valued at: Sage k500, Onion k630. No interest is to be charged on these amounts.
- (g) Provision is to be made for depreciation of fixtures and fittings at 10% on cost.
- (h) Interest on drawings for the year is to be charged: Sage k360, Onion £280.

### **QUESTION SIX**

a) Enter the following items in the appropriate debtors' accounts (i.e., your customers' accounts) only; do not write up other accounts. Then balance off each of these personal accounts at the end of the month.

20X6

May

1 Sales on credit to B Flyn k810; G Goh k763; T Fey k392.

4 Sales on credit to F Start k480; B Flyn k134.

10 Returns inwards from B Flyn k93; T Fey k41.

18 G Goh paid us by cheque k763.

20 T Fey paid us k351 by cheque.

24 B Flyn paid us £500 by cash.

31 Sales on credit to F Start £240.(12.5 marks)

**b)** Enter the following in the appropriate creditors' accounts (i.e., your suppliers' accounts) only. Do not write up the other accounts. Then balance off each of these personal accounts at the end of the month. (12.5marks)

20X8

June

1 Purchases on credit from J Saville k240; P Todd k390; J Fry k810.

3 Purchases on credit from P Todd k470; J Mehan k1,450.

10 We returned goods to J Fry k82; J Saville k65.

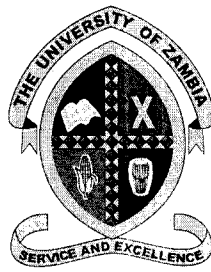
15 Purchases on credit from J Saville k210.

19 We paid J Mehan by cheque k1,450.

28 We paid J Saville by cash £300.

30 We returned goods to P Todd k39.





**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**  
**DEFERED /SUPPLEMENTAY EXAMINATION**  
**NOVEMBER 2021**  
**GSB 1031: FINANCIAL ACCOUNTING**

**EXAM TIME: 14 HOURS**

**DURATION: THREE (3) HOURS**

**INSTRUCTIONS:**

1. Read Each and Every Question CAREFULLY and UNDERSTAND the Information Given.
2. The Paper has a Total Number of Six (6) Questions.
3. Answer a Total of FOUR (4) Questions. Question ONE (1) is Compulsory.
4. The Paper Carries a Total of 100 Marks
5. Marks Allocation Indicates the Depth of the Answer Expected.

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**QUESTION ONE(25 Marks)**

James .M is a manufacturer. His trial balance at 31 December 20X2 is as follows:

	k	k
Delivery van expenses	1,760	
Lighting and heating: Factory	7,220	
Office	1,490	
Manufacturing wages	72,100	
General expenses: Factory	8,100	
Office	1,940	
Sales reps: commission	11,688	
Purchase of raw materials	57,210	
Rent: Factory	6,100	
Office	2,700	
Machinery (cost k40,000)	28,600	
Office equipment (cost k9,000)	8,200	
Office salaries	17,740	
Debtors	34,200	
Creditors		9,400
Bank	16,142	
Sales		194,800
Van (cost k6,800)	6,200	
Stocks at 31 December 20X1:		
Raw materials	13,260	
Finished goods	41,300	
Drawings	24,200	
Capital		155,950
	360,150	360,150

Prepare the manufacturing, trading and profit and loss accounts for the year ended 31 December 20X2 and a balance sheet as at that date. Give effect to the following adjustments:

- 1 Stocks at 31 December 20X2: raw materials k14,510; finished goods k44,490. There is no work in progress.
- 2 Depreciate machinery k3,000; office equipment k600; van k1,200.
- 3 Manufacturing wages due but unpaid at 31 December 20X2 k550; office rent prepaid k140.

## **QUESTION TWO**

A three-column cash book for a wine wholesaler is to be written up from the following details, balanced off, and the relevant discount accounts in the general ledger shown.(25Marks)

20X8

Mar

- 1 Balances brought forward: Cash k620; Bank k7,142.
- 2 The following paid their accounts by cheque, in each case deducting 5 per cent cash discounts: G Slick k260; P Fish k320; T Old k420 (all amounts are pre-discount).
- 4 Paid rent by cheque k430.
- 6 F Black lent us k5,000 paying by cheque.
- 8 We paid the following accounts by cheque in each case deducting a 2 1/2 per cent cash discount: R White k720; G Green k960; L Flip k1,600 (all amounts are pre-discount).
- 10 Paid motor expenses in cash k81.
- 12 J Pie pays his account of k90, by cheque k88, deducting k2 cash discount.
- 15 Paid wages in cash k580.
- 18 The following paid their accounts by cheque, in each case deducting 5 per cent cash discount: A Pony k540; B Line & Son k700; T Owen k520 (all amounts are pre-discount).
- 21 Cash withdrawn from the bank k400 for business use.
- 24 Cash Drawings k200.
- 25 Paid W Peat his account of k160, by cash k155, having deducted k5 cash discount.
- 29 Bought fixtures paying by cheque k720.
- 31 Received commission by cheque k120

### QUESTION THREE

The bank statement for F. WOOD for the month of March 20X6 is:

20X6		Dr	Cr	Balance
Mar	1 Balance			4,200 O/D
	8 T MacLeod	184		4,384 O/D
	16 Cheque		292	4,092 O/D
	20 W Milne	160		4,252 O/D
	21 Cheque		369	3,883 O/D
	31 G Frank: trader's credit		88	3,795 O/D
	31 TYF: standing order	32		3,827 O/D
	31 Bank charges	19		3,846 O/D

The cash book for March 20X6 is:

20X6	Dr	k	20X6	Cr	k
Mar	16 G Philip	292	Mar	1 Balance b/d	4,200
	21 J Forker	369		6 T MacLeod	184
	31 S O'Hare	192		30 W Milne	160
	31 Balance c/d	4,195		30 S Porter	504
		<u>5,048</u>			<u>5,048</u>

**You are required to:**

- (a) Write the cash book up to date(12.5marks)
- (b) Draw up a bank reconciliation statement as on 31 March 20X6(12.5 marks)

### QUESTION FOUR

Your bookkeeper extracted a trial balance on 31 December 20X5 which failed to agree by k210, a shortage on the credit side of the trial balance. A suspense account was opened for the difference.

In January 20X6 the following errors made in 20X5 were found:

- (i) Sales day book had been undercast by k200.
- (ii) Sales of k610 to T Vantaira had been debited in error to T Ventura's account.
- (iii) Rent account had been undercast by k90.
- (iv) Discounts Allowed account had been overcast by k100.
- (v) The sale of a computer at net book value had been credited in error to the Sales account k230.

**You are required to:**

- (a) Show the journal entries necessary to correct the errors.(10marks)
- (b) Draw up the suspense account after the errors described have been corrected.(7.5marks)

(c) If the net profit had previously been calculated at k31,400 for the year ending 31 December 20X5, show the calculations of the corrected net profit.(7.5marks)

### **QUESTION FIVE**

Sage and Onion are trading in partnership, sharing profits and losses and equally. Interest at 5% per annum is allowed or charged on both the capital account and the current account balances at the beginning of the year. Interest is charged on drawings at 5% per annum. The partners are entitled to annual salaries of: Sage k12,000; Onion k8,000.

Required:

From the information given below, prepare the partnership profit and loss account for the year ended 31 December 20X1, and the balance sheet as at that date.(25marks)

### **JAMES AND THANDO**

#### **Trial Balance as at 31 December 20X1**

	Dr	Cr
Capital accounts: Sage		100,000
Onion		50,000
Current accounts: Sage		2,000
Onion	600	
Cash drawings for the year: Sage	15,000	
Onion	10,000	
Freehold premises at cost	50,000	
Stock at 1 January 20X1	75,000	
Fixtures and fittings at cost	15,000	
Purchases and purchase returns	380,000	12,000
Bank	31,600	
Sales and sales returns	6,000	508,000
Trade debtors and trade creditors	52,400	33,300
Carriage inwards	21,500	
Carriage outwards	3,000	
Staff salaries	42,000	
VAT		8,700
Office expenses	7,500	
Provision for doubtful debts		2,000
Advertising	5,000	
Discounts received		1,000
Discounts allowed	1,200	
Bad debts	1,400	
Rent and business rates	2,800	
Accumulated provision for depreciation of fixtures and fittings		3,000
	<u>720,000</u>	<u>720,000</u>

At 31 December 20X1:

- (a) Stock on hand was valued at k68,000.
- (b) Purchase invoices amounting to k3,000 for goods included in the stock valuation at (a) above had not been recorded.
- (c) Staff salaries owing k900.
- (d) Business rates paid in advance k200.
- (e) Provision for doubtful debts to be increased to k2,400.
- (f) Goods withdrawn by partners for private use had not been recorded and were valued at: Sage k500, Onion k630. No interest is to be charged on these amounts.
- (g) Provision is to be made for depreciation of fixtures and fittings at 10% on cost.
- (h) Interest on drawings for the year is to be charged: Sage k360, Onion £280.

### **QUESTION SIX**

a) Enter the following items in the appropriate debtors' accounts (i.e., your customers' accounts) only; .Then balance off each of these personal accounts at the end of the month.(12.5marks)

20X6

May

1 Sales on credit to B Flyn k810; G Goh k763; T Fey k392.

4 Sales on credit to F Start k480; B Flyn k134.

10 Returns inwards from B Flyn k93; T Fey k41.

18 G Goh paid us by cheque k763.

20 T Fey paid us k351 by cheque.

24 B Flyn paid us K500 by cash.

31 Sales on credit to F Start K240.

b) Enter the following in the appropriate creditors' accounts (i.e., your suppliers' accounts) only. Then balance off each of these personal accounts at the end of the month.(12.5marks)

20X8

June

1 Purchases on credit from J Saville k240; P Todd k390; J Fry k810.

3 Purchases on credit from P Todd k470; J Mehan k1,450.

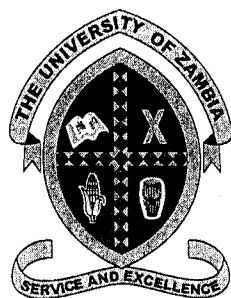
10 We returned goods to J Fry k82; J Saville k65.

15 Purchases on credit from J Saville k210.

19 We paid J Mehan by cheque k1,450.

28 We paid J Saville by cash K300.

30 We returned goods to P Todd k39.



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**JULY 2019 COHORT – FULL TIME/EVENING**

**SESSIONAL EXAMINATION**

**DATE: 17<sup>TH</sup> SEPTEMBER, 2021**

**GSB 2010: FINANCIAL MANAGEMENT**

**EXAM TIME: 14:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: SPORTS HALL**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Attempt *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



## **SECTION A – COMPULSORY**

### **QUESTION ONE**

- A. A company is considering a project that would cost K290,000 now, and would earn the following cash profits.

	K
1 <sup>st</sup> year	80,000
2 <sup>nd</sup> year	120,000
3 <sup>rd</sup> year	100,000
4 <sup>th</sup> year	60,000

The capital equipment purchased at the start of the project could be resold for K50,000 at the start of the fifth year. The company's required minimum rate of return is 12%.

**Required:**

Compute the project's internal rate of return (IRR) and advise whether the company should undertake the project. **(10 Marks)**

- B. Mwansa Bombwe Ltd is contemplating to invest in two assets A and B. The table below provides the return distribution of two assets involved.

State of economy	Probability that the state of economy occurs	Return if the state occurs Asset A	Return if the state occurs Asset B
BOOM	0.25	50%	70%
AVERAGE	0.50	40%	50%
BELOW AVERAGE	0.10	20%	10%
POOR	0.15	-10%	-20%

In addition to the above return distribution the two assets (A and B) operate in different industries and hence characterised by a market risk of 2 and 3 respectively. The market risk premium is 10% and the government treasury bills reward a return of 8% in the same economy.

**Required:**

- (i) Calculate the expected returns for assets A and B respectively. **(9 Marks)**  
(ii) Calculate the required rate of return for assets A and B respectively using the CAPM

**(6 Marks)**

### **QUESTION TWO**

Bunda Company is a distributor of air filters to retail stores. It buys its filters from several manufacturers. Filters are ordered in batches of sizes of 1,000, and each order costs K40 to place. The unit price is K1.20 a filter, Demand from retail stores is 20,000 filters per month, and carrying cost per month is 10 percent of the price.

- A. What is the optimal order quantity with respect to the batch sizes? **(7 marks)**

- B. What is the total inventory cost for the month? (8 Marks)
- C. What would be the optimal order quantity if the carrying cost were cut in half the cost a filter per month? (5 Marks)
- D. What would be the optimal order quantity if ordering costs were reduced to K30 per order? (5 Marks)

## **SECTION B – ATTEMPT ANY TWO QUESTIONS**

### **QUESTION THREE**

Mr Kunda is 63 years old and recently retired. He wishes to provide retirement income for himself and is considering an annuity contract with Madison Life Insurance Company. Such a contract pays him an equal-kwacha each year that he lives. For this cash-flow stream, he must put up a specific amount of money at the beginning. According to actuarial tables, his life expectancy is 15 years, and that is the duration on which the insurance company bases its calculations regardless of how long he actually lives.

#### **Required**

- A. If Madison Life uses a compound annual interest rate of 5 percent in its calculations, what must Mr Kunda pay at the outset for an annuity to provide him with K10,000 per year? (Assume that expected payments to be made at the end of each of the 15 years.) (15 Marks)
- B. What would be the purchase price if the compound annual interest rate is 10 percent? (10 Marks)

### **QUESTION FOUR**

- A. The Manix Company was recently formed to manufacture a new product. It has the following capital structure in market value terms:

	K
Debentures	6,000,000
Preferred stock	2,000,000
Common stock (320,000 shares)	<u>8,000,000</u>
	<u>16,000,000</u>

The company has a marginal tax rate of 40 percent. A study of publicly held companies in this line of business suggests that the required return on equity is about 17 percent (The CAPM approach was used to determine the required rate of return). The Manix Company's debt is currently yielding 13 percent, and its preferred stock is yielding 12 percent.

#### **Required**

Calculate the firm's present weighted average cost of capital (10 Marks)

- B. Kunda and Sitwala Company is considering manufacturing special drill bits and other equipment for mining rigs. The proposed project is currently regarded as complementary to its other lines of business, and the company has certain expertise by virtue of its having a large mechanical engineering staff. Because of the large outlays required to get into the business, management is concerned that Kunda and Sitwala earn a proper return. Since the new venture is believed to be sufficiently different from the company's existing operations, management feels that a required rate of return other than the company's present one should be employed.

The financial manager's staff has identified several companies (with capital structures similar to that of Kunda and Sitwala) engaged solely in the manufacture and sale of mining drilling equipment whose common stocks are publicly traded. Over the last five years, the median average beta of these companies has been 1.28. The staff believes that 18 percent is a reasonable estimate of the average return on stocks "in general" for the foreseeable future and the treasury bills rate will be around 12 percent. In financing projects, Kunda and Sitwala uses 40 percent debt and 60 percent equity. The after-tax cost of debt is 18 percent and corporate tax is 35 percent.

**Required**

- a) Compute the required rate of return for the project (7 Marks)
- b) Compute the weighted average cost of capital for the project (8 Marks)

**QUESTION FIVE**

Kalewa Stationers has the following results

	K'000
Net income	680
Equity	1,972
Net sales	10,200
Dividends	272
Net total assets	6,800
Depreciation	272
Long-term debt	3,400

**Required**

- A. Compute Kalewa's ROE directly. Confirm this using the Dupont system. (5 Marks)
- B. Using the ROE computed in part A, what is the sustainable growth rate for Kalewa? (5 Marks)
- C. Assuming the firm's net profit margin went to 0.05, what would happen to Kalewa's ROE? (5 Marks)
- D. Using the ROE in part C, what is the expected sustainable growth rate for Kalewa? (5 Marks)

E. What would be the growth rate if dividends were K190,000?

(5 Marks)

### QUESTION SIX

Sampo Master Limited reported a share price of K150. The price is expected to grow by 10% for the next three years, then grow by 6% for the fourth and fifth year and thereafter grow at a constant rate of 8% in perpetuity. The required rate of return is 20%.

#### Required

- A. Compute the Arithmetic Mean for the company for the first five years. (10 Marks)
- B. Compute the Geometric Mean for the company for the first five years. (10 Marks)
- C. Compare and contrast between the two methods used above. (5 Marks)

***END OF EXAMINATION PAPER***

# Present Value Table

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

Where  $r$  = discount rate

$n$  = number of periods until payment

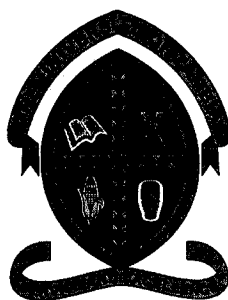
		Discount rate (r)									
Periods	(n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1		0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909
2		0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826
3		0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751
4		0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683
5		0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621
6		0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564
7		0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513
8		0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467
9		0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424
10		0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386
11		0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305
12		0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319
13		0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290
14		0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263
15		0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239
16		0.852	0.728	0.625	0.536	0.461	0.396	0.340	0.292	0.251	0.215
17		0.843	0.715	0.611	0.520	0.444	0.378	0.321	0.273	0.232	0.196
18		0.834	0.703	0.600	0.508	0.431	0.365	0.308	0.260	0.219	0.183
19		0.825	0.692	0.589	0.496	0.419	0.353	0.296	0.248	0.207	0.171
20		0.816	0.681	0.578	0.484	0.407	0.341	0.284	0.236	0.195	0.159
21		0.807	0.671	0.568	0.474	0.397	0.331	0.274	0.226	0.185	0.149
22		0.798	0.661	0.558	0.464	0.387	0.321	0.264	0.216	0.175	0.139
23		0.789	0.651	0.548	0.454	0.377	0.311	0.254	0.206	0.165	0.129
24		0.780	0.641	0.538	0.444	0.367	0.301	0.244	0.196	0.155	0.119
25		0.771	0.631	0.528	0.434	0.357	0.291	0.234	0.186	0.145	0.109
26		0.762	0.621	0.518	0.424	0.347	0.281	0.224	0.176	0.135	0.099
27		0.753	0.611	0.508	0.414	0.337	0.271	0.214	0.166	0.125	0.089
28		0.744	0.601	0.498	0.404	0.327	0.261	0.204	0.156	0.115	0.079
29		0.735	0.591	0.488	0.394	0.317	0.251	0.194	0.146	0.105	0.069
30		0.726	0.581	0.478	0.384	0.307	0.241	0.184	0.136	0.095	0.059
31		0.717	0.571	0.468	0.374	0.297	0.231	0.174	0.126	0.085	0.049
32		0.708	0.561	0.458	0.364	0.287	0.221	0.164	0.116	0.075	0.039
33		0.699	0.551	0.448	0.354	0.277	0.211	0.154	0.106	0.065	0.029
34		0.690	0.541	0.438	0.344	0.267	0.201	0.144	0.096	0.055	0.019
35		0.681	0.531	0.428	0.334	0.257	0.191	0.134	0.086	0.045	0.009
36		0.672	0.521	0.418	0.324	0.247	0.181	0.124	0.076	0.035	0.003
37		0.663	0.511	0.408	0.314	0.237	0.171	0.114	0.066	0.025	0.000
38		0.654	0.501	0.398	0.304	0.227	0.161	0.104	0.056	0.015	0.000
39		0.645	0.491	0.388	0.294	0.217	0.151	0.094	0.046	0.005	0.000
40		0.636	0.481	0.378	0.284	0.207	0.141	0.084	0.036	0.001	0.000
41		0.627	0.471	0.368	0.274	0.197	0.131	0.074	0.026	0.000	0.000
42		0.618	0.461	0.358	0.264	0.187	0.121	0.064	0.016	0.000	0.000
43		0.609	0.451	0.348	0.254	0.177	0.111	0.054	0.006	0.000	0.000
44		0.600	0.441	0.338	0.244	0.167	0.101	0.044	0.000	0.000	0.000
45		0.591	0.431	0.328	0.234	0.157	0.091	0.034	0.000	0.000	0.000
46		0.582	0.421	0.318	0.224	0.147	0.081	0.024	0.000	0.000	0.000
47		0.573	0.411	0.308	0.214	0.137	0.071	0.014	0.000	0.000	0.000
48		0.564	0.401	0.298	0.204	0.127	0.061	0.004	0.000	0.000	0.000
49		0.555	0.391	0.288	0.194	0.117	0.051	0.000	0.000	0.000	0.000
50		0.546	0.381	0.278	0.184	0.107	0.041	0.000	0.000	0.000	0.000
51		0.537	0.371	0.268	0.174	0.097	0.031	0.000	0.000	0.000	0.000
52		0.528	0.361	0.258	0.164	0.087	0.021	0.000	0.000	0.000	0.000
53		0.519	0.351	0.248	0.154	0.077	0.011	0.000	0.000	0.000	0.000
54		0.510	0.341	0.238	0.144	0.067	0.001	0.000	0.000	0.000	0.000
55		0.501	0.331	0.228	0.134	0.057	0.000	0.000	0.000	0.000	0.000
56		0.492	0.321	0.218	0.124	0.047	0.000	0.000	0.000	0.000	0.000
57		0.483	0.311	0.208	0.114	0.037	0.000	0.000	0.000	0.000	0.000
58		0.474	0.301	0.198	0.104	0.027	0.000	0.000	0.000	0.000	0.000
59		0.465	0.291	0.188	0.094	0.017	0.000	0.000	0.000	0.000	0.000
60		0.456	0.281	0.178	0.084	0.007	0.000	0.000	0.000	0.000	0.000
61		0.447	0.271	0.168	0.074	0.000	0.000	0.000	0.000	0.000	0.000
62		0.438	0.261	0.158	0.064	0.000	0.000	0.000	0.000	0.000	0.000
63		0.429	0.251	0.148	0.054	0.000	0.000	0.000	0.000	0.000	0.000
64		0.420	0.241	0.138	0.044	0.000	0.000	0.000	0.000	0.000	0.000
65		0.411	0.231	0.128	0.034	0.000	0.000	0.000	0.000	0.000	0.000
66		0.402	0.221	0.118	0.024	0.000	0.000	0.000	0.000	0.000	0.000
67		0.393	0.211	0.108	0.014	0.000	0.000	0.000	0.000	0.000	0.000
68		0.384	0.201	0.098	0.004	0.000	0.000	0.000	0.000	0.000	0.000
69		0.375	0.191	0.088	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70		0.366	0.181	0.078	0.000	0.000	0.000	0.000	0.000	0.000	0.000
71		0.357	0.171	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000
72		0.348	0.161	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73		0.339	0.151	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74		0.330	0.141	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75		0.321	0.131	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76		0.312	0.121	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000
77		0.303	0.111	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78		0.294	0.101	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
79		0.285	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80		0.276	0.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
81		0.267	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
82		0.258	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
83		0.249	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
84		0.240	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85		0.231	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86		0.222	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
87		0.213	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
88		0.204	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
89		0.195	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90		0.186	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91		0.177	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92		0.168	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
93		0.159	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94		0.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95		0.141	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96		0.132	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97		0.123	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
98		0.114	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99		0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100		0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

# 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

Periods (n)	Discount rate (r)									
	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
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606
(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
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**FEBRUARY 2020 COHORT – FULL TIME/EVENING**

**SESSIONAL EXAMINATION**

**DATE: 28<sup>TH</sup> JANUARY, 2022**

**GSB 2010: FINANCIAL MANAGEMENT**

**EXAM TIME: 09:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: SPORTS HALL**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Attempt *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A – COMPULSORY**

### **QUESTION ONE**

- A. Mr Kunda is 63 years old and recently retired. He wishes to provide retirement income for himself and is considering an annuity contract with Madison Life Insurance Company. Such a contract pays him an equal-kwacha each year that he lives. For this cash-flow stream, he must put up a specific amount of money at the beginning. According to actuary tables, his life expectancy is 15 years, and that is the duration on which the insurance company bases its calculations regardless of how long he actually lives. If Madison Life uses a compound annual interest rate of 5 percent in its calculations, what must Mr Kunda pay at the outset for an annuity to provide him with K10,000 per year? (Assume that expected payments to be made at the end of each of the 15 years. **(10 Marks)**)
- B. Establish a loan amortization schedule for a 14-month loan of K20,000 with equal instalment payments at the end of each month. The interest rate is 2 percent per month. **(15 Marks)**

### **QUESTION TWO**

A company is considering a project that would cost K290,000 now, and would earn the following cash profits.

Year	K
1 <sup>st</sup> year	80,000
2 <sup>nd</sup> year	120,000
3 <sup>rd</sup> year	100,000
4 <sup>th</sup> year	60,000

The capital equipment purchased at the start of the project could be resold for K50,000 at the start of the fifth year. The company's required minimum rate of return is 12%.

#### **Required:**

Compute the project's internal rate of return (IRR) and advise whether the company should undertake the project. **(25 Marks)**



## **SECTION B – ATTEMPT ANY TWO QUESTIONS**

### **QUESTION THREE**

- A. Mukuba group has a K12 million face value bond issue outstanding. The issue carries a coupon rate of 10% with interest paid quarterly. The issue matures in three (3) years. What is the values of the bond issue if it is priced to provide a yield to maturity of 12%?  
(10 Marks)
- B. Nampundwe Mining Company has just paid a dividend of K1.60 per share on its common stock. The company expects to increase the dividend at a 20 percent annual rate for the first four (4) years and at a 13 percent rate for the next four (4) years, and then grow the dividend at a 7 percent rate thereafter. This growth pattern is in keeping with the expected life cycle of earnings. You require a 16 percent return to invest in this stock.  
**Required**

Calculate the value you should place on a share of this stock.

(15 Marks)

### **QUESTION FOUR**

The following is an extract from the balance sheet of Black Mountain plc at 31 December 2021:

	K
Ordinary shares of K0.25 each	250,000
Reserves	350,000
7% preference shares of K1.00 each	250,000
15% unsecured loan stock	<u>150,000</u>
Total long-term funds	<u>1,000,000</u>

The ordinary shares are currently quoted at K1.25 each, the loan stock is trading at K85.00 per K100 nominal and the preference shares at K0.65 each. The ordinary dividend of K0.10 has just been paid, and the expected growth rate in the dividend is 10 percent. Corporate tax is at the rate of 30 percent.

**Required**

Compute the weighted average cost of capital for Mutende plc.

(25 Marks)

### **QUESTION FIVE**

Spire plc has a debt:equity ratio of 1:1. The risk-free rate of return is 4%, the equity risk premium derived from the market is 6% and the gross cost of debt is 4%. Its beta is 1.5 and assume any profit is taxed at 30%.

**Required**

- A. Calculate its weighted average cost of capital.

(9 Marks)

- B. Spire is concerned about its high debt:equity ratio. If Spire were to repay all debt, what would be the required return to equity? (8 Marks)
- C. Spire decides against repaying all debt but instead embarks on a rights issue in order to reduce its debt:equity ratio from its current position of 1:1 to a new position of 1:3. Calculate its weighted average cost of capital after the rights issue. (8 Marks)

#### **QUESTION SIX**

The Hedge Corporation manufactures only one product, the planks. The single raw material used in making planks is the dint. For each plank manufactured, 12 dints are required. Assume that the company manufactures 150,000 planks per year, that demand for planks is perfectly steady throughout the year, that it costs K2,000 each time dints are ordered, and that the carrying costs are K80 per dint per year.

#### **Required**

- A. Determine the economic order quantity of dints. (8 Marks)
- B. What are total inventory costs for Hedge? (12 Marks)
- C. How many times per year would inventory be ordered? (5 Marks)

***END OF EXAMINATION PAPER***

# Present Value Table

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

Where  $r$  = discount rate

$n$  = number of periods until payment

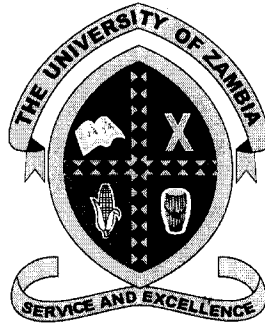
Periods (n)	Discount rate (r)										
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8
9	0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305	11
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15

# Annuity Table

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

Where  $r$  = discount rate  
 $n$  = number of periods

Periods (n)	Discount rate (r)									
	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
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606
(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
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**BSc ACCOUNTING AND FINANCE**

**FEBRUARY 2018 COHORT**

**SUPPLEMENTARY EXAMINATION**

**DATE: 17<sup>TH</sup> FEBRUARY, 2020**

**<sup>GSSB</sup>  
~~SOB~~ 2010: FINANCIAL MANAGEMENT**

**EXAM TIME: 09:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: DRGS LECTURE ROOM III**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Four (4) Questions, Answer ALL.
2. Marks Allocation Indicates the Depth of the Answer Expected.
3. Clearly Indicate the Mode of Learning and Cohort

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***DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO***

### QUESTION ONE

- A. The Manix Company was recently formed to manufacture a new product. It has the following capital structure in market value terms:

	K
Debentures	6,000,000
Preferred stock	2,000,000
Common stock (320,000 shares)	<u>8,000,000</u>
	<u>16,000,000</u>

The company has a marginal tax rate of 40 percent. A study of publicly held companies in this line of business suggests that the required return on equity is about 17 percent (The CAPM approach was used to determine the required rate of return). The Manix Company's debt is currently yielding 13 percent, and its preferred stock is yielding 12 percent.

#### Required

Calculate the firm's present weighted average cost of capital (10 Marks)

- B. Kunda and Sitwala Company is considering manufacturing special drill bits and other equipment for mining rigs. The proposed project is currently regarded as complementary to its other lines of business, and the company has certain expertise by virtue of its having a large mechanical engineering staff. Because of the large outlays required to get into the business, management is concerned that Kunda and Sitwala earn a proper return. Since the new venture is believed to be sufficiently different from the company's existing operations, management feels that a required rate of return other than the company's present one should be employed.

The financial manager's staff has identified several companies (with capital structures similar to that of Kunda and Sitwala) engaged solely in the manufacture and sale of mining drilling equipment whose common stocks are publicly traded. Over the last five years, the median average beta of these companies has been 1.28. The staff believes that 18 percent is a reasonable estimate of the average return on stocks "in general" for the foreseeable future and the treasury bills rate will be around 12 percent. In financing projects, Kunda and Sitwala uses 40 percent debt and 60 percent equity. The after-tax cost of debt is 18 percent and corporate tax is 35 percent.

#### Required

- A. Compute the required rate of return for the project (7 Marks)  
B. Compute the weighted average cost of capital for the project (8 Marks)

### QUESTION TWO

A company is considering two capital expenditure proposals. Both proposals are for similar products and both are expected to operate for four years. Only one proposal can be accepted.

The following information is available.

	<i>Profit/(loss)</i>	
	Proposal A	Proposal B
	K	K
Initial investment	46,000	46,000
Year 1	6,500	4,500
Year 2	3,500	2,500
Year 3	13,500	4,500
Year 4	(1,500)	14,500
Estimated scrap value at the end of year 4	4,000	4,000

Depreciation is charged on the straight line basis.

The company estimates its cost of capital at 20% pa.

**Required:**

**A.** Calculate the following for both proposals.

- (i) The payback period to one decimal place. (8 Marks)
- (ii) The average rate of return on initial investment, to one decimal place. (13 Marks)

**B.** Give two main advantages for each of the methods of appraisal used in A above. (4 Marks)

### QUESTION THREE

A company recently paid dividends of K100 per share. The company quoted a share price of K1,000. The dividend is expected to grow as follows:

1. For the first two years at a rate of 10%
2. For the next three years at a rate of 15%
3. Thereafter at an infinite rate of 5%

Jackson and Mwika are trying to decide whether to purchase the stock or not. The required rates of return for the two investors are 15% for Jackson and 20% for Mwika.

**Required**

- A.** What is the value of the stock to Jackson? (10 Marks)
- B.** What is the value of stock to Mwika? (10 Marks)
- C.** Which investor between the two should purchase the stock and why? (5 Marks)

### QUESTION FOUR

Assume that the outgoings are K300,000 per annum, spread evenly throughout the year. Money on deposit earns 10 per cent per annum more than money in a current account and the switching costs K20 per transaction.

## Required

Calculate the

- |                                 |           |
|---------------------------------|-----------|
| A. Optimal sale                 | (7 Marks) |
| B. Number of transactions       | (6 Marks) |
| C. Average balance              | (6 Marks) |
| D. Total/aggregate annual costs | (5 Marks) |

## END OF EXAMINATION

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	0.305	11
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15

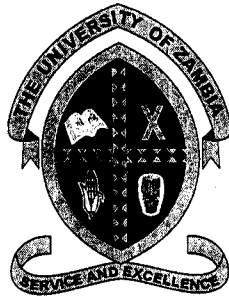


# Annuity Table

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

Where  $r$  = discount rate  
 $n$  = number of periods

Periods (n)	Discount rate (r)									
	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
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606
(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
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.716	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**FEBRUARY/JULY 2019 COHORT – FULL TIME/EVENING**

**SESSIONAL EXAMINATION**

**DATE: 27<sup>TH</sup> JANUARY, 2021**

**GSB 2010: FINNICIAL MANAGEMENT**

**EXAM TIME: 09:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: SPORTS HALL**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Answer *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A – COMPULSORY**

### **QUESTION ONE**

Bunda Company is a distributor of air filters to retail stores. It buys its filters from several manufacturers. Filters are ordered in batches of sizes of 1,000, and each order costs K40 to place. The unit price is K1.20 a filter, Demand from retail stores is 20,000 filters per month, and carrying cost per month is 10 percent of the price.

#### **Required**

- (a) What is the optimal order quantity with respect to the batch sizes? (7 marks)
- (b) What is the total inventory cost for the month? (8 Marks)
- (c) What would be the optimal order quantity if the carrying cost were cut in half the cost a filter per month? (5 Marks)
- (d) What would be the optimal order quantity if ordering costs were reduced to K30 per order? (5 Marks)

### **QUESTION TWO**

A company is considering a project that would cost K290,000 now, and would earn the following cash profits.

Year	K	Year	K
1 <sup>st</sup> year	80,000	3 <sup>rd</sup> year	100,000
2 <sup>nd</sup> year	120,000	4 <sup>th</sup> year	60,000

The capital equipment purchased at the start of the project could be resold for K50,000 at the start of the fifth year. The company's required minimum rate of return is 12%.

#### **Required:**

Compute the project's internal rate of return (IRR) and advise whether the company should undertake the project. (25 Marks)

## **SECTION B**

### **QUESTION THREE**

Sebenzani plc is a quoted company. Its directors are reviewing the company's long term financial strategy. The company has been criticised for being financed largely by equity. It has no significant long term borrowings. The board has asked for some calculations to enable them to decide whether the company should consider borrowing in the future. The next phase of expansion will require the company to raise K200m and will involve a general expansion of the existing lines of business.

The following information has been obtained:

Current risk free rate	4%
Equity risk premium	5%
Current corporation tax rate	30%
Equity capital	K1,000m
Sebenzani plc's Beta	1.4
Probable gross interest rate on debt	7%

**Required**

- A. Calculate Sebenzani plc's expected weighted average cost of capital (WACC). (7.5 Marks)
- B. Calculate Sebenzani plc's expected WACC after the new finance has been raised assuming that the finance is raised by borrowing. (10 Marks)
- C. Explain the concept of CAPM in relation to cost of capital and risk. (7.5 Marks)

**QUESTION FOUR**

It is now January 1, 2018. Last year Kenworth Enterprises experienced major operational problems which affected the company's financial condition, forcing management to temporarily suspend dividend payments. It is expected that the company will not pay a dividend in 2018 and 2019 but will declare a dividend of K50 per share in 2020. Dividend growth is expected to be 3 percent in 2021 and 2022 and thereafter growth is expected to indefinitely be the same as for the economy, 6 percent. The required rate of return is 10 percent.

**Required**

- A. Calculate the expected dividends for 2018 through to 2022 (10 Marks)
- B. What is the value of the stock today? (15 Marks)

**QUESTION FIVE**

Mr Kunda is 63 years old and recently retired. He wishes to provide retirement income for himself and is considering an annuity contract with Madison Life Insurance Company. Such a contract pays him an equal-kwacha each year that he lives. For this cash-flow stream, he must put up a specific amount of money at the beginning. According to actuarial tables, his life expectancy is 15 years, and that is the duration on which the insurance company bases its calculations regardless of how long he actually lives.

**Required**

- A. If Madison Life uses a compound annual interest rate of 5 percent in its calculations, what must Mr Kunda pay at the outset for an annuity to provide him with K10,000 per year?

(Assume that expected payments to be made at the end of each of the 15 years.

(15 Marks)

B. What would be the purchase price if the compound annual interest rate is 10 percent?

(10 Marks)

#### QUESTION SIX

Assume that the outgoings are K300,000 per annum, spread evenly throughout the year. Money on deposit earns 10 per cent per annum more than money in a current account and the switching costs K20 per transaction.

#### Required

Calculate the

- |                                 |           |
|---------------------------------|-----------|
| A. Optimal sale                 | (7 Marks) |
| B. Number of transactions       | (6 Marks) |
| C. Average balance              | (6 Marks) |
| D. Total/aggregate annual costs | (5 Marks) |

**END OF EXAMINATION**

### Present Value Table

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

Where  $r =$  discount rate

 $n$  = number of periods until payment

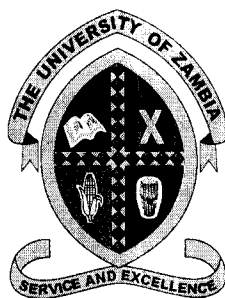
		Discount rate ( <i>r</i> )										
Periods ( <i>n</i> )	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%		
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1	
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2	
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3	
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4	
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5	
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6	
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7	
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8	
9	0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9	
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10	
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305	11	
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12	
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13	
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14	
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15	
( <i>n</i> )	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
2		1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3		2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4		3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5		4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6		5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7		6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8		7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9		8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10		9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11		10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12		11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13		12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14		13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367
15		13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606
(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
2		1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3		2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4		3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5		3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6		4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7		4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8		5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9		5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10		5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11		6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12		6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13		6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14		6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15		7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**SCHOOL COURSE**

**FEBRUARY/JULY 2019 COHORT – FULL TIME/EVENING**

**DEFERRED/SUPPLEMENTARY EXAMINATION**

**DATE: 6<sup>TH</sup> APRIL, 2021**

**GSB 2010: FINANCIAL MANAGEMENT**

**EXAM TIME: 14:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: SPORTS HALL**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Six (6) Questions Comprising Sections A and B.
2. Answer a Total of FOUR (4) Questions.
3. Section A is *COMPULSORY*. From Section B Answer *ANY TWO (2)* Questions.
4. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



## SECTION A - COMPULSORY

### QUESTION ONE

A company is considering a project that would cost K290,000 now, and would earn the following cash profits.

Year	K	Year	K
1 <sup>st</sup> year	80,000	3 <sup>rd</sup> year	100,000
2 <sup>nd</sup> year	120,000	4 <sup>th</sup> year	60,000

The capital equipment purchased at the start of the project could be resold for K50,000 at the start of the fifth year. The company's required minimum rate of return is 12%.

**Required:**

Compute the project's internal rate of return (IRR) and advise whether the company should undertake the project. (25 Marks)

### QUESTION TWO

On December 31, 2016 BGM Enterprises recorded an average annual rate of return of 18% while Troik Investments Bureau recorded an average annual rate of return of 26% on the portfolio. As Chief Financial Officer of the holding company for BGM Enterprises and Troik Investments Bureau you make the following projections for the next five (5) years.

- (a) BGM Enterprises average annual rate of return to grow at 5% per annum the following first two (2) years, decline by 8% in the third year due to poor commodity markets and grow at a constant rate of 6% thereafter.
- (b) Troik Investment Bureau portfolio's average annual rate of return was projected to grow by 4% in the first year, no growth in second and third years and grow at a constant rate of 5% thereafter.

**Required:**

- A. Compute the projected Arithmetic Mean rate of return for each of the two companies. Comment on the results. (10 Marks)
- B. Compute the projected Geometric Mean rate of return for each of the two companies. Comment on the results. (10 Marks)
- C. Briefly discuss the characteristics of each method above and the recommended circumstance in which to use each of them. (5 Marks)

## SECTION B

### QUESTION THREE

Mukubesa Ltd currently runs a centralised billing system. For Payments by cheque, they are made by all customers directly to head office. It requires, on average, four days for customers' mailed cheques to reach the head office. An additional one and half days is required to update payments in the system before a deposit can be made. The firm has an average daily cheque collection of K500,000. The company has recently investigated the possibility of initiating a lockbox system for all payments by cheque. It has estimated that with such a system customers' mailed payments would reach the receipt location two and half days sooner. Further, the processing time could be reduced by an additional day because each lockbox bank would pick up mailed deposits twice daily.

#### Required

- A. Determine how much cash would be freed up (released) through the use of a lockbox system. **(10 Marks)**
- B. Determine the annual gross kwacha benefit of the lockbox system, assuming the firm could earn a 5% percent return on the released funds in part (A) by investing in short term instruments. **(10 Marks)**
- C. If the annual cost of the lock system will be K75,000, should such a system be initiated? **(5 Marks)**

### QUESTION FOUR

Sampo Master Limited just reported dividends of K230,000 and earning of K760,000. The dividends and earnings are expected to grow by 6% and 8% respectively for the next three years, then in the fourth year dividends are expected to grow by 5% while earnings to decline by 5% and no change for both dividends and earnings in the fifth year. The required rate of return is 20%.

#### Required

Compute the expected growth rate of the company. **(25 Marks)**

### QUESTION FIVE

A company recently paid dividends of K100 per share. The company quoted a share price of K1,000. The dividend is expected to grow as follows:

1. For the first two years at a rate of 10%
2. For the next three years at a rate of 15%
3. Thereafter at an infinite rate of 5%

Jackson and Mwika are trying to decide whether to purchase the stock or not. The required rates of return for the two investors are 15% for Jackson and 20% for Mwika.

**Required**

- A. What is the value of the stock to Jackson? (10 Marks)
- B. What is the value of stock to Mwika? (10 Marks)
- C. Which investor between the two should purchase the stock and why? (5 Marks)

**QUESTION SIX**

Wankumbwa Chileshe plc was established nine years ago. The company has grown steadily throughout that period and the directors are beginning to plan the next stage of expansion. The company requires to raise a substantial amount of finance in order to grow and the directors are considering the options that are open to them.

One possibility is to raise funds through borrowing. Another would be to raise further equity, although the directors are of the opinion that they might have to seek a stock exchange quotation in order to do so.

**Required**

- A. Describe the tax implications of selecting a source of finance from the point of view of the company and the provider of the finance. (7 Marks)
- B. Explain why it might not always be appropriate for management to choose the least expensive form of capital whenever new finance is required. (6 Marks)
- C. Explain the advantages and disadvantages of seeking a stock exchange listing. (7 Marks)
- D. All of Wankumbwa Chileshe plc's shares are held by the directors, all of whom are actively involved in the running of the company. Describe one advantage and one disadvantage of having a "tight" shareholding. (5 Marks)

**END OF EXAMINATION**

# Present Value Table

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

Where  $r$  = discount rate

$n$  = number of periods until payment

Periods (n)	Discount rate (r)										
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	1
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	2
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	3
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	4
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	5
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	6
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	7
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	8
9	0.941	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	9
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	10
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.305	11
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	12
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	13
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	14
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	15
(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0.901	0.893	0.885	0.877	0.870	0.862	0.855	0.847	0.840	0.833	1
2	0.812	0.797	0.783	0.769	0.756	0.743	0.731	0.718	0.706	0.694	2
3	0.731	0.712	0.693	0.675	0.658	0.641	0.624	0.609	0.593	0.579	3
4	0.659	0.636	0.613	0.592	0.572	0.552	0.534	0.516	0.499	0.482	4
5	0.593	0.567	0.543	0.519	0.497	0.476	0.456	0.437	0.419	0.402	5
6	0.535	0.507	0.480	0.456	0.432	0.410	0.390	0.370	0.352	0.335	6
7	0.482	0.452	0.425	0.400	0.376	0.354	0.333	0.314	0.296	0.279	7
8	0.434	0.404	0.376	0.351	0.327	0.305	0.285	0.266	0.249	0.233	8
9	0.391	0.361	0.333	0.308	0.284	0.263	0.243	0.225	0.209	0.194	9
10	0.352	0.322	0.295	0.270	0.247	0.227	0.208	0.191	0.176	0.162	10
11	0.317	0.287	0.261	0.237	0.215	0.195	0.178	0.162	0.148	0.135	11
12	0.286	0.257	0.231	0.208	0.187	0.168	0.152	0.137	0.124	0.112	12
13	0.258	0.229	0.204	0.182	0.163	0.145	0.130	0.116	0.104	0.093	13
14	0.232	0.205	0.181	0.160	0.141	0.125	0.111	0.099	0.088	0.078	14
15	0.209	0.183	0.160	0.140	0.123	0.108	0.095	0.084	0.074	0.065	15

# Annuity Table

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

Where  $r$  = discount rate  
 $n$  = number of periods

Periods (n)	Discount rate (r)									
	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
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145
11	10.37	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495
12	11.26	10.58	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814
13	12.13	11.35	10.63	9.986	9.394	8.853	8.358	7.904	7.487	7.103
14	13.00	12.11	11.30	10.56	9.899	9.295	8.745	8.244	7.786	7.367
15	13.87	12.85	11.94	11.12	10.38	9.712	9.108	8.559	8.061	7.606
(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
2	1.713	1.690	1.668	1.647	1.626	1.605	1.585	1.566	1.547	1.528
3	2.444	2.402	2.361	2.322	2.283	2.246	2.210	2.174	2.140	2.106
4	3.102	3.037	2.974	2.914	2.855	2.798	2.743	2.690	2.639	2.589
5	3.696	3.605	3.517	3.433	3.352	3.274	3.199	3.127	3.058	2.991
6	4.231	4.111	3.998	3.889	3.784	3.685	3.589	3.498	3.410	3.326
7	4.712	4.564	4.423	4.288	4.160	4.039	3.922	3.812	3.706	3.605
8	5.146	4.968	4.799	4.639	4.487	4.344	4.207	4.078	3.954	3.837
9	5.537	5.328	5.132	4.946	4.772	4.607	4.451	4.303	4.163	4.031
10	5.889	5.650	5.426	5.216	5.019	4.833	4.659	4.494	4.339	4.192
11	6.207	5.938	5.687	5.453	5.234	5.029	4.836	4.656	4.486	4.327
12	6.492	6.194	5.918	5.660	5.421	5.197	4.988	4.793	4.611	4.439
13	6.750	6.424	6.122	5.842	5.583	5.342	5.118	4.910	4.715	4.533
14	6.982	6.628	6.302	6.002	5.724	5.468	5.229	5.008	4.802	4.611
15	7.191	6.811	6.462	6.142	5.847	5.575	5.324	5.092	4.876	4.675



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Examination**

**January 2022**

**HRM 2310: ORGANIZATIONAL BEHAVIOR AND LEADERSHIP**

**Instructions**

Time Allowed: **3 hours**

There **six (6)** questions in this paper

You are required to answer **four (4)** questions

Section A is **compulsory**

**Any two questions from Section B**

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: ANSWER ALL QUESTIONS

### Question one (compulsory)

A business is planning to adopt a new IT system that will allow many staff to work from home several days a week. Some senior managers are against this as it will 'reduce control over workers'. The IT manager in charge of implementing the strategy decides to appoint a project team to smooth the change.

- a) Define the term 'change management'. (2 marks)
  - b) Explain the role of a project team in change management. (8 marks)
  - c) Give any 3 reasons why employees may resist change. (6 marks)
  - d) Use Lewin's Model to describe the stages in the change process. (9 marks)
- (25 marks)**

### Question Two (compulsory)

What is personality? Describe the relationship between personality and work behaviour.

**(25 marks)**

**Total: 50 marks**

## SECTION B: ANSWER ANY TWO (2) QUESTIONS

### Question Three

- a) Identify and briefly describe the five traits in the Big Five personality model. (15 marks)
- b) According to Skinner's reinforcement theory, managers can use four approaches to affect employee's behaviour. Discuss any (2) approaches. (10 marks)

**Total: 25 marks**

### Question Four

Explain the sources of organisational conflict and describe strategies that can be used to resolve conflict.

**(25 marks)**

### Question Five

- a) Define the term 'stress' and describe the three (3) types of Stress. (13 marks)
- b) 'Role Problems' is one of the sources/causes of Stress. Explain any four (4) types of Role Problems. (12 marks)

**Total: 25 marks**

### Question Six

- a) Explain in detail the four (4) classification of culture. (20 marks)
- b) Outline any five functions of organisation culture. (5 marks)

**Total: 25 marks**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

### **Undergraduate Deferred Examination**

**April 2021**

### **HRM 2310: ORGANISATIONAL BEHAVIOUR**

#### **Instructions**

Time Allowed: **3 hours**

There are **seven (7)** questions in this paper

You are required to answer **four (4)** questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



### Question One

- a) "Behaviour is generally predictable, so there is no need to formally study OB." Do you agree? (5 marks)
- b) What challenges and opportunities do managers face in the workplace of the 21st century? (10 marks)
- c) Explain ten (10) managerial roles as outlined by Mintzberg. (10 marks)

**Total: 25 marks**

### Question Two

- a) Define the term Perception. (3 marks)
- b) The attribution process involves deciding whether an observed behavior or event is largely caused by internal or external factors. Outline any four (4) attribution errors that can occur. (12 marks)
- c) Describe the personality dimensions of the Big Five Model. (10 marks)

**Total: 25 marks**

### Question Three

Explain the following motivation Theories and their implications on motivational practices for management.

- a) Herzberg's Two Factor Theory (12 marks)
- b) Expectancy Theory (13 marks)

**Total: 25 marks**

### Question Four

You and two other students share a Taxi to school every day. The driver has recently taken to playing a new radio station quite loudly. You do not like the music, or the loudness.

- a) Using the conflict-handling approaches, explain how you might go about resolving this conflict, bringing out the implications of each approach. In your view, which approach would be best suited? why? (15 marks)
- b) Describe the Classical Conditioning model of Learning. (10 marks)

**Total: 25 marks**

### Question Five

- a) Describe organizational factors that might constrain decision makers. (4 marks)
- b) Explain the three (3) criteria that individuals can use in making ethical decisions. (6 marks)
- c) Outline any three (3) advantages and any two (2) disadvantages of group decision making. (10 marks)

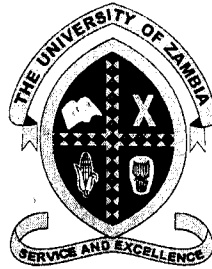
### Question Six

- a) Explain the factors that lead individuals and organizations to resist change.
- b) How does Lewin's three-step model of change deal with change management?
- c) It is argued that change can cause work-place stress. Outline any four (4) ways in which stress can be managed.

### Question Seven

- a) Define the term Organisational Culture and explain the aspects of the cultural web.  
(16 marks)
- b) Distinguish the following leadership styles and comment on their effectiveness.
  - i) Autocratic (3 marks)
  - ii) Democratic (3 marks)
  - iii) Laissez-faire (3 marks)

**Total: 25 marks**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Examination**

**January 2021 (Evening)**

**HRM 2310: ORGANIZATIONAL BEHAVIOR AND LEADERSHIP**

**Instructions**

Time Allowed: **3 hours**

There **six (6)** questions in this paper

You are required to answer **four (4)** questions

Section A is **compulsory**

Section B answer any two questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: ANSWER ALL QUESTIONS

### Question one (compulsory)

Read the following case and answer the questions that follow

Assume you are a Manager in a named organisation. two subordinates Chanda and Kay have different perceptions on just about everything the Department does. They have different perceptions about team goals, methods, values and the roles team members should play. Chanda gives the impression he wants "to be in charge" and he argues aggressively to get his way. Kay, who is more reserved, offers thoughtful ideas in rebuttal, and usually consults with the other group members for their views and support. Privately, Chanda bad-mouths Kay to anyone who will listen. He says that he has been on successful teams many times and 'knows' the best ways to operate the team. He says that Kay is a "control freak" and "the only one on the team holding up progress". Kay, on the other hand, only conveys her feelings about Chanda when team members are present, but she has repeatedly said out loud, "There are more ways of getting this team started than just yours! Too bad you have a closed mind!" the difference in perception has resulted in sour relationship between the two. This has affected their individual performance and the performance of the department at large.

- a) Explain the type of conflict which is exhibited in this scenario (4 marks)
- b) Outline the steps the steps that you would take to resolve the conflict explained in (a) above (15 marks)
- c) Discuss the statement that not ALL conflict is bad (6 marks)

### Question Two (compulsory)

- a) Proper management of reinforcement can change the direction, level, and persistence of an individual's behavior. Justify this statement using the four basic strategies of reinforcement. (20 marks)
- b) Define a virtual team and give two advantages and two disadvantages (5 marks)

**Total: 50 marks**

## SECTION B: ANSWER ANY TWO (2) QUESTIONS

### Question Three

- a) Discuss three alternative views of leadership (15 marks)
- b) Explain the five stages in group development (10 marks)

**Total: 25 marks**

### Question Four

Change can be seen as an opportunity to identify good ideas, however, individuals and organisations still resist change.

- a) Explain five reasons why people resist change. (15 marks)
- b) Identify and explain any five (5) ways through which organizations can manage change. (10 marks)

**Total: 25 marks**

### Question Five

- a) Debate critically the validity of the contention that the motivation for staff to work well depends on more than a high salary and good working conditions. (15 marks)
- b) Describe how Managers can motivate group members to achieve organizational goals and reduce social Loafing in groups and teams. (10 marks)

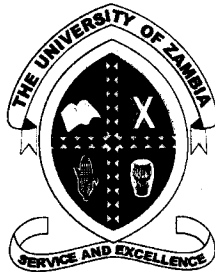
**Total: 25 marks**

### Question Six

- a) Organisational Culture is defined as "a pattern of basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems." Edgar Schein, 1992
  - i) What four (4) factors are essential to the creation of organisational culture? [9 marks]
  - ii) Explain in detail the four classifications of culture. [16 marks]

**Total: 25 marks**

*End of exam!*



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Examination**

**January 2022**

**HRM 2310: ORGANIZATIONAL BEHAVIOR AND LEADERSHIP**

**Instructions**

Time Allowed: **3 hours**

There **six (6)** questions in this paper

You are required to answer **four (4)** questions

Section A is **compulsory**

**Any two questions from Section B**

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: ANSWER ALL QUESTIONS

### Question one (compulsory)

A business is planning to adopt a new IT system that will allow many staff to work from home several days a week. Some senior managers are against this as it will 'reduce control over workers'. The IT manager in charge of implementing the strategy decides to appoint a project team to smooth the change.

- a) Define the term 'change management'. (2 marks)
  - b) Explain the role of a project team in change management. (8 marks)
  - c) Give any 3 reasons why employees may resist change. (6 marks)
  - d) Use Lewin's Model to describe the stages in the change process. (9 marks)
- (25 marks)**

### Question Two (compulsory)

What is personality? Describe the relationship between personality and work behaviour.

**(25 marks)**

**Total: 50 marks**

## SECTION B: ANSWER ANY TWO (2) QUESTIONS

### Question Three

- a) Identify and briefly describe the five traits in the Big Five personality model. (15 marks)
- b) According to Skinner's reinforcement theory, managers can use four approaches to affect employee's behaviour. Discuss any (2) approaches. (10 marks)

**Total: 25 marks**

### Question Four

Explain the sources of organisational conflict and describe strategies that can be used to resolve conflict. (25 marks)

### Question Five

- a) Define the term 'stress' and describe the three (3) types of Stress. (13 marks)
- b) 'Role Problems' is one of the sources/causes of Stress. Explain any four (4) types of Role Problems. (12 marks)

**Total: 25 marks**

### Question Six

- a) Explain in detail the four (4) classification of culture. (20 marks)
- b) Outline any five functions of organisation culture. (5 marks)

**Total: 25 marks**

**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**  
**JANUARY 2022 FINAL EXAMINATIONS**

**COURSE: HRM 2310 – ORGANISATIONAL BEHAVIOUR AND LEADERSHIP**

**DURATION : THREE (3) HOURS**

**INSTRUCTIONS: THE EXAMINATION HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION B HAS SEVEN QUESTIONS. ANSWER ANY THREE QUESTIONS IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF SIX (6) QUESTIONS.**

**SECTION A (COMPULSORY)– 40 MARKS**

1. McDonald's Corporation has placed significant emphasis on ensuring that all employees are treated appropriately. The firm has a large number of racial/ethnic minority managers and employees. So that all individuals involved in hiring handle the employment processes legally and effectively, McDonald's does the same training for everyone. This training is done for managers at stores, regional offices, and corporate headquarters. Also, at the firm's "Hamburger University," additional seminars on diversity are conducted as part of its broad training curriculum.

A different focus is occurring at Starbucks Corporation. As it expands its number of stores and adds more employees, a specific effort is being made to recruit individuals with disabilities. To aid customers and employees with disabilities, Starbucks has been redesigning service counters and facilities to make them more usable for those with disabilities. Special recruiting efforts have resulted in the growth of employees with cerebral palsy, hearing deficiencies, and those with physical limitations.

However, Cracker Barrel restaurants in Illinois had to pay \$2 million to settle Equal Employment Opportunity Commission (EEOC) charges for race and sexual harassment against 51 employees. African American employees were insulted through racially specific wording, and women were subjected to offensive sexual comments and conduct. Note that Cracker Barrel has more than 500 stores in 40 states, but these charges only applied to three restaurants.

Denny's Restaurants have also been sued for disability bias against workers nationwide. The EEOC lawsuit charged that Denny's did not make reasonable accommodation for employees with different disabilities. That lawsuit is still under review and being challenged by Denny's. Note that a decade ago Denny's was subjected to racial bias legal claims. As a result, Denny's responded by aggressively hiring minorities and proactively addressing diversity problems, which led it to receive a national award as a minority friendly firm.

**REQUIRED**



- (a) Diversity specialists argue that a firm's employee mix (or base) should match its customer mix. Assume you are the Director, Human Resource at McDonald's Corporation, explain whether your employee base (or mix) should match your client base. **(2 marks)**
  - (b) Discuss why the various diversity efforts of McDonald's and Starbucks are good business practices. **(2 marks)**
  - (c) Following countless litigations that Denny's suffered as a result of racial, ethnicity and religious discrimination, explain whether diversity training and cultural training are necessary for employees at Cracker Barrel and Denny's. **(2 marks)**
  - (d) In your view, what HR efforts are needed by employers such as Cracker Barrel and Denny's to reduce discrimination charges and complaints when they occur in individual locations? **(4 marks)**
2. Discuss the factors that affect personality and how the 'Big Five' personality dimensions and four MBTI types relate to individual behaviour in organisations. **(10 marks)**
  3. What are the distinctive features of the theories of the following authorities: Maslow, Herzberg, McGregor, McClelland and Alderfer and their implications for managerial practice? **(20 marks)**

#### **SECTION B (ANSWER ANY THREE QUESTIONS)- 60 MARKS**

4. With relevant examples, discuss the stages of group development and the factors that affect group cohesiveness. **(20 marks)**
5. Explain in detail the main features and conclusions of the studies of leadership carried out by the universities of Iowa, Michigan and Ohio. **(20 marks)**
6. Senior management of a large multinational corporation is planning to restructure the organisation. Currently, the organisation is decentralised around geographic areas so that the executive responsible for each area has considerable autonomy over manufacturing and sales. The new structure will transfer power to the executives responsible for different product groups; the executives responsible for each geographic area will no longer be responsible for manufacturing in their area but will retain control over sales activities.

#### **Required**

- (a) Discuss in detail the process model for planned organisation change and major sources of resistance to change. **(7.5 marks)**
- (b) Describe the types of resistance senior management might encounter from this organisational change. **(5 marks)**
- (c) Highlight the main strategies that the corporation may pursue to ensure change initiatives are successful. Which of these strategies are likely to prove most effective? **(7.5 marks)**

7. Discuss the role and relevance of culture to an organisation, and what should managers do to influence or shape organisational culture. **(20 marks)**
8. Self-awareness is increasingly recognised as an important ingredient for effective leadership. Suppose that you are responsible for creating a leadership development programme in a government organisation. What activities or processes would you introduce to help participants in this programme to constructively develop a better self-awareness of their personality, values and personal biases? **(20 marks)**
9. With relevant examples, compare managerial leadership with transformational leadership and describe the features of task-oriented, people-oriented and servant leadership. **(20 marks)**
10. (a) Critically discuss the significance of job design and with relevant examples, explain the merits and demerits of the various methods of job design. **(10 marks)**  
(b) To what extent do work-life balance methods or mechanisms affect work productivity, motivation and employee turnover? In addition, what could be the possible causes of workplace-related stress and burnout? **(10 marks)**

-----END OF QUESTION PAPER-----



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**Monday 21<sup>st</sup> September 2020**

**HRM 2310: ORGANISATION BEHAVIOUR AND DESIGN**

**Instructions:**

Time Allowed: **3 hours**

There are five questions in this Examination Paper

SECTION A and B are Compulsory and Answer any two from SECTION C

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A (COMPULSORY)

### QUESTION ONE

**Multiple choice- Write your answer in the answer booklet**

1. Being outgoing, talkative, sociable, assertive indicated which personality dimension
  - (a) Agreeableness
  - (b) Emotional stability
  - (c) Extroversion
  - (d) Openness to experience
2. Negative reinforcement involves the threat of
  - (a) Extinction
  - (b) Punishment
  - (c) Criticism
  - (d) None of these
3. According to Herzberg's motivation hygiene theory, the opposite of satisfaction is, \_\_\_\_\_
  - (a) Dissatisfaction
  - (b) No satisfaction
  - (c) No dissatisfaction
  - (d) All of the above
4. Which of the following is the second stage of group formation,
  - (a) Forming stage
  - (b) Initial integration stage
  - (c) Storming stage
  - (d) None of the above
5. We all know that mainly two types of groups exist in an organisation namely formal and informal. But what are the two types of formal groups in an organisation?
  - (a) Command groups and interest groups
  - (b) Interest groups and task groups
  - (c) Task groups and psychological groups
  - (d) Command groups and task groups
6. A well-integrated group is able to disband, if required, when its work is accomplished. This stage is known as,
  - (a) Disbanding stage
  - (b) Disintegration stage
  - (c) Adjourning stage
  - (d) None of the above
7. Organisational culture performs a number of functions within an organisation. Which of the following is not one such function:
  - (a) It creates distinction between one organization and another.
  - (b) It facilitates the generation of commitment to one's individual self-interest only
  - (c) It conveys a sense of identity for organisation members
  - (d) It enhances social system stability.

8. Hygiene factors are similar to the \_\_\_\_\_ needs identified by the Hierarchy of Needs.
- (a) Higher order
  - (b) Three-tiered
  - (c) Lower order
  - (d) None of the above
9. power is based on the subordinate's perception that the leader has a right to exercise influence because of the leader's
- (a) Role or position within the organisation.
  - (b) Expertise and knowledge.
  - (c) Personal characteristics and personality.
  - (d) Ability to punish or reward.
10. In which type of culture is competition encouraged?
- (a) Ethnocentric culture
  - (b) Selfish culture
  - (c) Individualist culture
  - (d) Collectivist culture
11. The transformational leadership style
- (a) Encourages group members to transform themselves into better people.
  - (b) Strives to change the group members' opinions by showing them a better way to think.
  - (c) Changes opinions and attitudes without changing behaviours.
  - (d) Encourages and inspires group members to go above and beyond selfish interests and do what is best for the common good of the group as a whole.
12. Leaders that focus on the individuality and personality needs of their employees and emphasize building good interpersonal relationships are:
- (a) Job centred
  - (b) Laissez-faire
  - (c) Employee oriented
  - (d) Consideration oriented
13. Leaders who enlist the help of subordinates as a group to solve problems is:
- (a) Situational
  - (b) Laissez-faire
  - (c) Participative
  - (d) Employee-oriented
14. Which of the following connectionist theories is used in associating an unconditioned stimulus with a conditioned one to get a response which is conditioned?
- (a) Classical conditioning
  - (b) Negative conditioning
  - (c) Instrumental conditioning
  - (d) Cognitive conditioning
15. In which of the following classification of conflicts DO people always try to maintain their image and respect?
- (a) Intergroup conflict

- (b) Intragroup conflict
  - (c) Interpersonal conflict
  - (d) Intrapersonal conflict
16. That refers to the degree to which individual is practical in his approach, maintains emotional distance from others and believes ends justify means. Which of the following is this referred to?
- (a) Self –Monitoring
  - (b) Risk taking
  - (c) Self – Esteem
  - (d) Machiavellianism
17. Which of the following terms DOES refer to people drawing general impression about Others based on a single characteristic, such as intelligence, aggressiveness, etc.?
- (a) Attribution
  - (b) Stereotyping
  - (c) Halo Effect
  - (d) Primacy Error
18. Which of the following dimensions DOES refer to a leader considering employees as a means to achieve goals and pay little or no attention to any problems that the employees may face?
- (a) Development-oriented
  - (b) Production-oriented
  - (c) Training-oriented
  - (d) Employee-oriented
19. Which of the following organizational structures reduce redundancy and enable free flow of idea and information among the employees?
- (a) Tall organizational structure
  - (b) Flat organizational structure
  - (c) Project organizational structure
  - (d) Matrix organizational structure
20. Which of the following types of organization facilitates close supervision and provides for Continuous interaction between the supervisor and his subordinates?
- (a) Flat organization
  - (b) Tall organization
  - (c) Vertical organization
  - (d) Matrix organization
21. Which of the following refers to the departments or employees of a firm that perform the core activities and contribute to its business directly?
- (a) Staff functions
  - (b) Line managers
  - (c) Department functions
  - (d) Organization functions
22. First level managers must possess ..... skills, which include knowledge of and proficiency in the methods, processes and procedures for carrying out activities :

- (a) Human.
- (b) Conceptual.
- (c) Design
- (d) Technical.

23. Name the skill which is important at all levels of an organisation :

- (a) Conceptual.
- (b) Design
- (c) Human
- (d) Technical.

24. Which theory states that there is no best way to manage all situations?

- (a) Systems Theory.
- (b) Contingency Theory.
- (c) Administrative Theory.
- (d) Bureaucratic Theory.

25. What is the nature of the problems that top management generally deals with and what kind of decisions do they take to solve their problem s?

- (a) Unstructured an programmed
- (b) Structured and non-programmed
- (c) Unstructured and non-programmed
- (d) Structured and programmed

(25Marks)

## **SECTION B (COMPULSORY)**

### **QUESTION TWO**

#### **Case Study: More Than a Pay check**

John Sitali was a trainer for Lusaka Home Manufacturers (LHM), a large builder of prefabricated homes. LHM had hired Sitali fresh from graduate school with a master's degree in English. At first, the company put him to work on writing and revising company brochures and helping with the most important correspondence at the senior level. But soon, both Sitali and senior management officials began to notice how well he worked with executives on their writing, how he made them feel more confident about it, and how, after working with an executive on a report, the executive often was much more eager to take on the next writing task.

LHM moved Sitali into its prestigious training department. The company's trainers worked with thousands of supervisors, managers, and executives, helping them learn everything from new computer languages to time management skills to how to get the most out of the workers on the plant floor, many of whom were unmotivated high school dropouts. Soon Sitali was spending all his time giving short seminars on executive writing as well as coaching his students to perfect their memos and letters.

Sitali's move into the training department meant a big increase in salary, and when he started working exclusively with the company's top brass, it seemed as though he got a bonus every month. Sitali's supervisor, Ms Hellen Banda, knew he was making more than many executives who had been with the company three times as much, and probably twice as much as any of his graduate school classmates who majored in English. Yet in her biweekly meetings with him, she could tell that Sitali wasn't happy.

When Ms Banda asked him about it, Sitali replied that he was in a bit of a rut. He had to keep saying the same things over and over in his seminars, and business memos weren't as interesting as the literature he had been trained on. But then, after trailing off for a moment, he blurted out, "They don't need me!" Since the memos filtering down through the company were now flawlessly polished, and the annual report was 20 percent shorter.

Weeks later, Sitali came to Ms Banda with a proposal: What if he started holding classes for some of the floor workers, many of whom had no future within or outside the company because many could write nothing but their own names? Ms Banda took the idea to her superiors. They told her that they wouldn't oppose it, but Sitali couldn't possibly keep drawing such a high salary if he worked with people whose contribution to the company was compensated at minimum wage.

Sitali agreed to a reduced salary and began offering English classes on the factory floor, which were billed by management (who hoped to avoid a wage hike that year) as an added benefit of the job. At first only two or three workers showed up—and they, Sitali believed, only wanted an excuse to get away from the nailing guns for a while. But gradually word got around that Sitali was serious about what he was doing and didn't treat the workers like kids in a remedial class.

At the end of the year, Sitali got a bonus from a new source: the vice president in charge of production. Although Sitali's course took workers off the job for a couple of hours a week, productivity had actually improved since his course began, employee turnover had dropped, and for the first time in over a year, some of the floor workers had begun to apply for supervisory positions. Sitali was pleased with the bonus, but when Ms Banda saw him grinning as he walked around the building, she knew he wasn't thinking about his bank account.

**Questions:**

- (a) What motivation theory would explain why John Sitali was unhappy after working for a while in the training department?
- (b) Briefly explain the motivation theory identified in part (a).
- (c) Based on the motivation theory identified in part (a) how else you would motivate Sitali at LHM.
- (d) Sitali seems to have drifted into being a teacher. Given his needs and motivations, do you think teaching is an appropriate profession for him? Give reasons for your answer
- (e) Give two (2) limitation of the motivation theory identified in part (a)



**SECTION C (ANSWER ANY TWO QUESTIONS FROM THIS SECTION)**

**QUESTION THREE**

Organizational change refers to the actions in which a company or business alters a major component of its organization, such as its culture, the underlying technologies or infrastructure it uses to operate, or its internal processes.

- a) Discuss five (5) factors that make employees resist organizational change.
- b) Give three(3) reasons why organizations resist change
- c) Explain how individual resistance to change may be overcome by a manager.

(25 Marks)

**QUESTION FOUR**

Explain the most appropriate style of leadership that you would adopt in the following circumstances:

- i. A large warehouse employing 300 people
- ii. A small IT company
- iii. An academic department of a university
- iv. Football club
- v. Village banking group

(25 Marks)

**QUESTION FIVE**

Write brief notes on the following:

- a) Differences between programmed and non-programmed decisions
- b) Social Learning
- c) Halo effect
- d) Components of attitude
- e) Dysfunctional Conflict

(25 Marks)

**END OF EXAMINATION**

**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**NOVEMBER 2021 DEFERRED FINAL EXAMINATIONS**

**COURSE: HRM 2320 - FOUNDATIONS OF HUMAN RESOURCE MANAGEMENT/  
HRM 3310 - HUMAN RESOURCE MANAGEMENT**

**DURATION : THREE (3) HOURS**

**INSTRUCTIONS: THE EXAMINATION PAPER HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION B HAS FIVE QUESTIONS. ANSWER ANY TWO QUESTIONS IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF FIVE (5) QUESTIONS.**

**SECTION A (COMPULSORY)– 50 MARKS**

1. According to Vernon (2003), the human consequences of layoffs are costly and particularly devastating for individuals, their families, and entire communities. While workforce reductions cannot always be avoided, there are compelling reasons why downsizing-related layoffs must nonetheless be seen as a managerial tool of absolute last resort. Further, Vernon (2003) contends that during prolonged economic downturn, organisations should adopt HR practices and approaches aimed at cost reduction and containment rather than outright layoffs.

**REQUIRED**

- (a) With relevant examples, discuss the three stages of the cost-reduction framework related to a downsizing strategy. **(10 marks)**
- (b) Explain in detail the factors that affect the selection of a downsizing strategy. **(5 marks)**
2. The new Employment Code Act, No. 3 of 2019 has repealed and replaced the Acts, namely; the Employment Act of 1965, the Employment (special provisions) Act of 1966, the Employment of Young Persons and Children Act of 1933 and the Minimum Wages and Conditions of Employment Act of 1982. The essence of repealing and replacing the aforementioned Acts was to ensure that a law be enacted to address the lacunas that were in the said Acts and respond to the dynamics of the labour market. The Employment Code Act, No. 3 of 2019 had introduced ten (10) key changes to legislation that regulates employment in Zambia.

However, due to the devastating impact of the Covid-19 on both the employers and the employees, on 11<sup>th</sup> May, 2020, the Minister of Labour and Social Security signed into law the Employment Code (Exemptions) Regulations, Statutory Instrument No. 48 of 2020 (S.I No. 48 of 2020) which provides numerous exemptions to the Employment Code Act, No. 3 of 2019 (ECA).

**REQUIRED**

- (a) Critically discuss at least five (5) key provisions introduced under the Employment Code Act, No. 3 of 2019 (ECA) and the provisions of the Employment Code (Exemptions) Regulations, Statutory Instrument No. 48 of 2020 (S.I No. 48 of 2020) which provides numerous exemptions to the Employment Code Act, No. 3 of 2019 (ECA) and their implications on both the employers and employees. **(10 marks)**
  - (b) With relevant examples and in line with the Employment Code Act, No. 3 of 2019 (ECA), discuss in detail the grounds upon which an employment contract can be terminated as well as circumstances under which an employer cannot terminate an employment contract. **(10 marks)**
3. (a) As the Director, Human Capital, you have been asked during the meeting by the Chairperson of the Job Evaluation Committee, of which you are a member, to explain to the other members of the Committee, the differences between qualitative and quantitative methods of job evaluation, outlining each of the methods in details. **(10 marks)**
- (b) In your opinion, you are convinced that the point rating is the best method of all job evaluation methods; what issues will you include in your discussion to persuade the other Committee members to adopt the Point Rating Method of Job Evaluation for the purpose of evaluating the five management positions, which are before the Committee for consideration? **(5 marks)**

#### **SECTION B (ANSWER ANY TWO QUESTIONS)- 50 MARKS**

- 4. Outline the constituent elements of both an employment contract and a psychological contract. In your opinion, why are leading organisations relying more on elements of psychological contracts to attract and retain the best talents than elements of an employment contract? **(25 marks)**
- 5. (a) In his influential book, *Strategic Pay* (1990), Ed Lawler wrote that 'The challenge is to develop pay programmes that support and reinforce the business objectives of the organization and the kind of culture, climate and behaviour that are needed for the organization to be effective.' How can reward policies and practices support the achievement of business goals? **(10 marks)**
- (b) Explain the key components of a total reward management and in your opinion, what factors affect employee compensation? **(15 marks)**
- 6. (a) Explain the various techniques for reducing accidents at the workplace and what could be the possible costs and consequences associated with poor occupational health and safety management systems for both the organisation and the employees? **(15 marks)**
- (b) To what extent can flexible work arrangements contribute to occupational health and safety? **(10 marks)**
- 7. Explain the recruitment process and in your view, what could be the possible sources of job candidates and what are the pros and cons of these sources of job candidates? And in

the context of employee recruitment and selection, explain in detail the meaning of validity and reliability and what could be their similarities and differences **(25 marks)**

8. Discuss the process of collective bargaining and characteristic features of collective bargaining. In your view, what could be the common causes of industrial disputes in organisations and to what extent do you think Alternative Dispute Resolution Mechanisms, have helped to settle collective disputes, where parties of the Bargaining Unit have failed to reach a settlement? **(25 marks)**

-----END OF EXAMINATION-----

**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**JANUARY/FEBRUARY 2021 FINAL EXAMINATIONS**

**COURSE: HRM 2320 - FOUNDATIONS OF HUMAN RESOURCE MANAGEMENT/  
HRM 3310 - HUMAN RESOURCE MANAGEMENT**

**DURATION : THREE (3) HOURS**

**INSTRUCTIONS: THE EXAMINATION HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION B HAS FOUR QUESTIONS. ANSWER ANY TWO QUESTIONS IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF SIX (6) QUESTIONS.**

**SECTION A (COMPULSORY)– 60 MARKS**

1. As Director, Human Resource, you have been directed by the Chief Executive Officer to scale down HR activities due to budgetary constraints arising from the poor financial performance of the company in the last three years. Consequently, the 2021 departmental budgets have been cut by 50%. The Chief Executive Officer has emphasized the need by the Directors to streamline their operations and only undertake activities that will have the greatest impact on the business in terms of revenue and profitability.

**REQUIRED**

In your opinion, which HR functions or activities are you going to undertake, which you think are going to have the highest impact on revenue and profitability on the company and why? (20 marks)

2. The new Employment Code Act, No. 3 of 2019 has repealed and replaced the Acts, namely; the Employment Act of 1965, the Employment (special provisions) Act of 1966, the Employment of Young Persons and Children Act of 1933 and the Minimum Wages and Conditions of Employment Act of 1982. The essence of repealing and replacing the aforementioned Acts was to ensure that a law be enacted to address the lacunas that were in the said Acts and respond to the dynamics of the labour market. The Employment Code Act, No. 3 of 2019 had introduced ten (10) key changes to legislation that regulates employment in Zambia.

However, due to the devastating impact of the Covid-19 on both the employers and the employees, on 11<sup>th</sup> May, 2020, the Minister of Labour and Social Security signed into law the Employment Code (Exemptions) Regulations, Statutory Instrument No. 48 of 2020 (S.I No. 48 of 2020) which provides numerous exemptions to the Employment Code Act, No. 3 of 2019 (ECA).

**REQUIRED**

Critically discuss the provisions of the Employment Code (Exemptions) Regulations, Statutory Instrument No. 48 of 2020 (S.I No. 48 of 2020) which provides numerous

exemptions to the Employment Code Act, No. 3 of 2019 (ECA) and their implications on both the employers and employees. (15 marks)

3. McDonald's Corporation has placed significant emphasis on ensuring that all employees are treated appropriately. The firm has a large number of racial/ethnic minority managers and employees. So that all individuals involved in hiring handle the employment processes legally and effectively, McDonald's does the same training for everyone. This training is done for managers at stores, regional offices, and corporate headquarters. Also, at the firm's "Hamburger University," additional seminars on diversity are conducted as part of its broad training curriculum.

A different focus is occurring at Starbucks Corporation. As it expands its number of stores and adds more employees, a specific effort is being made to recruit individuals with disabilities. To aid customers and employees with disabilities, Starbucks has been redesigning service counters and facilities to make them more usable for those with disabilities. Special recruiting efforts have resulted in the growth of employees with cerebral palsy, hearing deficiencies, and those with physical limitations.

However, Cracker Barrel restaurants in Illinois had to pay \$2 million to settle Equal Employment Opportunity Commission (EEOC) charges for race and sexual harassment against 51 employees. African American employees were insulted through racially specific wording, and women were subjected to offensive sexual comments and conduct. Note that Cracker Barrel has more than 500 stores in 40 states, but these charges only applied to three restaurants.

Denny's Restaurants have also been sued for disability bias against workers nationwide. The EEOC lawsuit charged that Denny's did not make reasonable accommodation for employees with different disabilities. That lawsuit is still under review and being challenged by Denny's. Note that a decade ago Denny's was subjected to racial bias legal claims. As a result, Denny's responded by aggressively hiring minorities and proactively addressing diversity problems, which led it to receive a national award as a minority friendly firm.

### **REQUIRED**

- (a) Discuss why the various diversity efforts of McDonald's and Starbucks are good business practices. (7.5 marks)
- (b) In your view, what HR efforts are needed by employers such as Cracker Barrel and Denny's to reduce discrimination charges and complaints when they occur in individual locations? (5 marks)
4. Suppose that it has just been projected that, because of a number of technological innovations, your firm will need 20 percent fewer clerical employees within the next three years. There are currently 120 clerical positions in the company, split between two departments of equal size. Annual voluntary turnover and involuntary turnover for Department A is 2 percent, while for Department B is 10 percent.

## **REQUIRED**

- (a) Of the two Departments, which department do you project to have a labour shortage or surplus in the next three years for clerical positions? **(2.5 marks)**
- (b) In your view, what HR strategies would you use to manage labour shortage and surplus for the respective departments? **(10 marks)**

## **SECTION B (ANSWER ANY TWO QUESTIONS)- 40 MARKS**

- 5. (a) With relevant examples, critically discuss the different approaches to labour relations **(10 marks)**.  
  
(b) Explain the Collective Bargaining Process and Alternative Dispute Resolution Mechanisms, which can be used to settle collective disputes where parties of the Bargaining Unit have failed to reach a settlement. **(10 marks)**
- 6. What are the most significant links between performance management and learning and development? Why is it important for the HR Department to ensure that employee performance is measured and what is the relationship between the organisation's strategic objectives and performance management?**(20 marks)**
- 7. In your view, what would be the appropriate method a Supervisor should use to appraise customer service employees and what could be the possible errors that the Supervisor might make when preparing for the performance appraisal for customer service employees? How might the Supervisor avoid those errors? **(20 marks)**
- 8. (a) If you managed a restaurant with high absenteeism and high turnover, what actions would you take to get those issues under control? **(10 marks)**  
  
(b) To what extent would you use work-life balance methods or mechanisms to improve work productivity and reduce employee turnover? In addition, what could be the possible causes of workplace-related stress and burnout? **(10 marks)**

-----END OF QUESTION PAPER-----

**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS**

**JANUARY 2022 FINAL EXAMINATIONS**

**COURSE: HRM 2320 - FOUNDATIONS OF HUMAN RESOURCE MANAGEMENT/  
HRM 3310 - HUMAN RESOURCE MANAGEMENT**

**DURATION : THREE (3) HOURS**

**INSTRUCTIONS: THE EXAMINATION PAPER HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION B HAS SIX QUESTIONS. ANSWER ANY THREE QUESTIONS IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF SIX (6) QUESTIONS.**

**SECTION A (COMPULSORY)– 40 MARKS**

1. The new Employment Code Act, No. 3 of 2019 has repealed and replaced the Acts, namely; the Employment Act of 1965, the Employment (special provisions) Act of 1966, the Employment of Young Persons and Children Act of 1933 and the Minimum Wages and Conditions of Employment Act of 1982. The essence of repealing and replacing the aforementioned Acts was to ensure that a law be enacted to address the lacunas that were in the said Acts and respond to the dynamics of the labour market. The Employment Code Act, No. 3 of 2019 had introduced ten (10) key changes to legislation that regulates employment in Zambia.

**REQUIRED**

- (a) If you were directed by the board of directors to implement the redundancy programme involving twelve factory workers because of a reduction in sales orders, what actions would you take in line with the Employment Code Number 3 of 2019 and why? And what benefits shall be paid to the affected workers once they are declared redundant? (7.5 marks)
  - (b) Critically discuss at least five (5) key provisions introduced under the Employment Code Act, No. 3 of 2019 (ECA) relating to leave benefits and the provisions relating to circumstances under which severance pay shall be applicable. (7.5 marks)
  - (c) With relevant examples, discuss in detail the grounds upon which an employment contract can be terminated as well as circumstances under which an employer cannot terminate an employment contract. (7.5 marks)
2. With relevant examples, explain the difference between functional turnover and dysfunctional turnover and in your opinion, what could be the possible reasons for the high turnover in your company and as Director, HR, what strategies would you be recommending to management to reduce the high employee turnover in your organisation? (7.5 marks)



3. (a) As the Director, Human Capital, you have been asked during the meeting by the Chairperson of the Job Evaluation Committee, of which you are a member, to explain to the other members of the Committee, the differences between qualitative and quantitative methods of job evaluation. **(5 marks)**
- (b) In your opinion, you are convinced that the point rating is the best method of all job evaluation methods; what issues will you include in your discussion to persuade the other Committee members to adopt the Point Rating Method of Job Evaluation for the purpose of evaluating the five management positions, which are before the Committee for consideration? **(5 marks)**

**SECTION B (ANSWER ANY THREE QUESTIONS)- 60 MARKS**

4. Discuss the process of collective bargaining and characteristic features of collective bargaining. In your view, what could be the common causes of industrial disputes in organisations and to what extent do you think Alternative Dispute Resolution Mechanisms, have helped to settle collective disputes, where parties of the Bargaining Unit have failed to reach a settlement? **(20 marks)**
5. Absenteeism represents a huge cost to many organisations and some organisations have been impacted by it in terms of productivity, efficiency and costs.

**Required:**

- (a) In your opinion, what could be the possible causes of workplace absenteeism and what do you think could be the business case for reducing it? **(7.5 marks)**
- (b) Discuss the sources of absenteeism data and in your view, what HR strategies would you recommend to Management to reduce the high absenteeism rate in your organization, including how your organization could deal with long-term sickness absence in accordance with the applicable Zambian labour laws? **(12.5 marks)**
6. (a) What are the main sources of recruitment available to an organization? Briefly describe and assess each of these sources in terms of the kind of vacancies for which they would be most suitable, and the advantages/disadvantages of each. **(12.5 marks)**
- (b) With the aid of relevant examples, discuss the significance of the Employment Code Act Number 3 of 2019 has in the process of employee selection? **(7.5 marks)**
7. The Director, Corporate Services does not support the HR planning activities that the organization is currently engaged in. She suggests that planning is a fruitless exercise for an organization since the results may be outdated by the time the process is complete. As Director, Human Resource, using your expertise in HR planning, explain the significance and importance of HR planning to the Director, Corporate Services. **(20 marks)**
8. Discuss the benefits and use of performance appraisal reports in your organisation or organisation of your choice. Assuming you are the Director, HR, how would go about reducing the problems associated with the performance appraisal system in your organisation? **(20 marks)**

9. To what extent would you use work-life balance methods or mechanisms to improve work productivity and reduce employee turnover? In addition, what could be the possible causes of workplace-related stress and burnout? **(20 marks)**

-----**END OF EXAMINATION**-----



**The University of Zambia**  
**Graduate School of Business**  
**Labour Economics: HRM3315**  
**Final Examination**  
**2020/2021 Academic Year**

7<sup>th</sup> September 2021

Duration: 3 Hours

**Instructions:**

- a. There are seven questions in this paper - Answer all questions.
- b. Full marks will only be awarded to comprehensive answers.
- c. Calculators are allowed.

### Question One

Demand		Supply	
Wage (ZMW)	Employment ('000)	Wage (ZMW)	Employment ('000)
1,000	10	500	2
1,500	8	1,000	4
2,000	6	1,500	6
2,500	4	2,000	8
3,000	2	2,500	10

- On the same graph plot the labour demand and labour supply curves (6).
- Find the equilibrium wage and employment in this market (6).

### Question Two

S/n	Variable	Value
1.	Price	ZMW 60
2.	Wage	ZMW 70
3.	Cost of Capital	ZMW 40
4.	Marginal Product of Labour	100
5.	Marginal Product of Capital	90

- Should capital or labour be increased in the above firm? (4).
- What is the marginal revenue product of labour? (3).
- What is the marginal revenue product of capital? (3).
- State and explain the marginal rate of technical substitution formula (3).

### Question Three

S/n	Variable	Employee Group	Value
1.	Wage in period one	Managers	ZMW 55
2.	Wage in period two	Managers	ZMW 65
3.	Employment in period one	Managers	45
4.	Employment in period two	Managers	35
5.	Wage in period one	Drivers	ZMW 35
6.	Wage in period two	Drivers	ZMW 45
7.	Employment in period one	Drivers	25
8.	Employment in period two	Drivers	15

- Calculate the own wage price elasticity of demand for managers (4).
- Interpret your answer in part a above (2).
- Calculate the cross-wage elasticity of demand (4).
- Interpret your answer in part c above (2).

#### Question Four

- a. A firm pays an employee K 950 whose marginal revenue product is K 1, 000; what is the employer's loss if the employment contract is terminated? Show your working (2).
- b. A firm pays an employee K 800 whose marginal revenue product is K 900; what is the employee's loss if the employment contract is terminated? Show your working (2).
- c. Graphically illustrate two reasons why earnings increase with job tenure (4).

#### Question Five

Given that the labour force is 8, 452, 124, the working age population is 16, 869, 223 and the unemployed are 1, 586, 664, answer the questions that follow. Show your working.

- a. Calculate the labour force participation rate and unemployment rate (4).
- b. If the labour force decreases by 1 million, recalculate the labour force participation rate and unemployment rate (4).
- c. What are the differences in your responses in parts (a) and (b)? (2).

#### Question Six

- a. Briefly describe the purpose of labour unions (2).
- b. State the law governing labour unions in Zambia (1).
- c. Describe two market constraints on a labour union's ability to achieve its objectives (2).
- d. Graphically illustrate how a labour union maximises its utility given the labour demand curve (4).

#### Question Seven

- a. Graphically distinguish between a person who places high value on an extra hour of leisure from a person who places low value on an extra hour of leisure (3).
- b. Graphically illustrate the income and substitution effects of a wage increase for a consumer as a supplier of labour (4).
- c. Using a specific example, graphically illustrate the effect of welfare programmes on a labour supplier's budget constraint (3).

**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**JANUARY/FEBRUARY 2021 FINAL EXAMINATIONS**

**COURSE : HRM 3321 – ORGANISATION AND JOB DESIGN**

**DURATION : THREE (3) HOURS**

**INSTRUCTIONS : THE EXAMINATION HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION B HAS FOUR (4) QUESTIONS. ANSWER ANY TWO QUESTIONS IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF FIVE (5) QUESTIONS.**

**SECTION A (COMPULSORY)– 50 MARKS**

1. It has been argued that 'structure' follows 'strategy'. In the context of organization design, show how an organizational structure can affect the implementation of a strategic plan and how it relates to the overall effectiveness and performance of an organisation?  
**(20 marks)**
2. (a) As the Director of Human Resource, what would be your justification for advocating that your company is organised along divisional lines rather than along purely functional lines?  
**(10 marks).**  
  
(b) Design typical organizational structures organised along:
  - (i) Product lines with at least five products; and
  - (ii) Geographical lines, depicting its presence in ten provincial towns in Zambia.**(10 marks)**
3. What are the implications of a significant increase in the span of control throughout a management hierarchy for (a) the shape of the organisation structure, and (b) the management of day-to-day activities? **(10 marks).**

**SECTION B (ANSWER ANY TWO QUESTIONS)- 50 MARKS**

4. How far it is practicable for any firm to incorporate both mechanistic and organic elements into its organisation, and what factors should be considered when choosing the degree of centralisation? **(25 marks).**
5. (a) In your opinion, why is the point rating method the most widely used of all job evaluation methods? **(10 marks).**  
  
(b) Outline the steps involved in designing the point rating system of job evaluation method **(15 marks).**
6. (a) Explain the process of conducting a job analysis exercise and its methods and

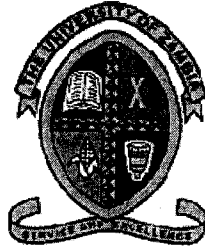
what do you think could be the possible use of the information generated by a job analysis process? **(15 marks).**

- (b) Do you think organisations can really do without detailed job descriptions and to what extent could the absence of job descriptions and specifications affect organisations? **(10 marks).**

7. (a) Critically discuss the significance of job design and with relevant examples, explain the merits and demerits of the various methods of job design. **(10 marks).**

- (b) To what extent do work-life balance methods or mechanisms affect work productivity and employee turnover? In addition, what could be the possible causes of workplace-related stress and burnout? **(15 marks).**

-----END OF QUESTION PAPER-----



# **THE UNIVERSITY OF ZAMBIA**

## **Graduate School of Business**

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### **FINAL EXAMINATION**

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### **HRM 3342**

### **HUMAN RESOURCE AND INFORMATION**

### **SYSTEMS**

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Date: 25<sup>th</sup> January, 2022  
Time: 09:00hrs – 12:00hrs  
Duration: 3 Hours  
Venue: UNZA SPORTS HALL

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### **Instructions**

1. This exam paper has TWO (2) SECTIONS, A and B.
2. SECTION A contains FIVE (5) questions. Answer **ANY FOUR (4)**.
3. SECTION B contains TWO (2) questions. Answer **ANY ONE**.
4. Clearly identify the problem being solved.



## SECTION A: ANSWER ANY FOUR QUESTIONS (80 Marks)

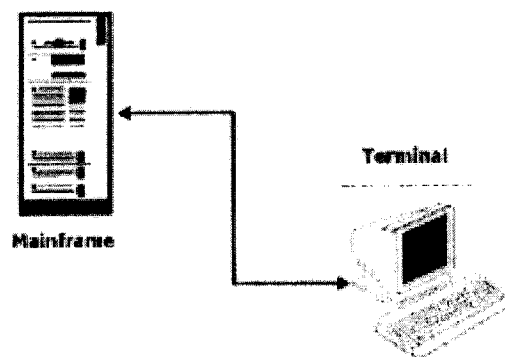
### QUESTION ONE

- i. Define the term HRIS. [2 marks]
- ii. Distinguish between *transactional* and *transformational* HR activities. [4 marks]
- iii. State three (3) factors that influence the success of an HRIS. [4.5 marks]
- iv. Describe the five (5) categories of *employee* HRIS users. [7.5 marks]
- v. Mention two (2) types of *non-employee* HRIS users. [2 marks]

### QUESTION TWO

- i. Distinguish among Data, Information and Knowledge. [3 marks]
- ii. Draw a clearly labelled diagram to show the components of a DBMS. [4 marks]
- iii. Outline the five (5) functions of a DBMS. [5 marks]
- iv. A database is defined as a set of organised data. Explain what is meant by '*organised data*'. [4 marks]
- v. Describe each key database concept below. [4 marks]
  - a. Entities
  - b. Attributes
  - c. Primary keys
  - d. Foreign keys

### QUESTION THREE



- i. Distinguish among User Interface, Application Processing and Data store concepts in tiered architecture. [6 marks]

- ii. Consider the figure above.
  - a. What is the architecture called? [2 marks]
  - b. Using the concepts from (i), describe how the architecture works. [6 marks]
- iii. What is a *best of breed (BOB) architecture*? [2 marks]
- iv. State the pre-conditions for a *best of breed (BOB) architecture*. [4 marks]

#### QUESTION FOUR

- i. Define the term Needs Analysis. [2 marks]
- ii. Explain the five (5) main stages of an effective needs analysis. [10 marks]
- iii. Explain four (4) effects of poor needs analysis. [8 marks]

#### QUESTION FIVE

- i. Explain the focus of the physical model in HRIS design? [4 mark]
- ii. Discuss the advantages and disadvantages of the 'build it' option in HRIS design. [8 marks]
- iii. Although a system may meet all the requirements as defined in the requirements document, it still may not be feasible to implement for several reasons. Explain the following dimensions of assessing system feasibility. [8 marks]
  - a. Technical
  - b. Operational
  - c. Legal and Political
  - d. Economic Feasibility

#### SECTION B: ANSWER ONE QUESTION (20 Marks)

Consider the following Scenario and answer question 6 OR 7:

You work as a manager in the HR department and observe that managing the employee training programme is tedious and time consuming. Your HR staff are expected to organise training courses, handle training requests, show consistency in scheduling employee attendance, and comply with laws, among other duties. While other members of your team suggest that establishing a training unit can help, you propose that a learning management HRIS can be helpful in managing a company's training programme needs.

A learning management system, or LMS, is used any time eLearning takes place. Learning management systems are being used across many different industries to improve organizational efficiency. They are also used in schools for online and blended courses. Learning Management Systems (LMS) have integrated their way into the hearts of organizations across every industry. LMS are now often used in conjunction with human resources information systems (HRIS)

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#### **QUESTION SIX**

- i. An HRIS CBA Matrix captures all reasonable benefit and cost components in HRIS investment analyses. Develop an HRIS CBA Matrix, showing all components for the case scenario.

[20 marks]

#### **QUESTION SEVEN**

- i. Develop a Context diagram for the case scenario and provide a supporting narrative to explain your diagram.

[20 marks]

***The End***



# THE UNIVERSITY OF ZAMBIA

## Graduate School of Business

### **FINAL EXAMINATION**

#### **HRM 3342: HUMAN RESOURCE INFORMATION SYSTEMS**

Date: 17<sup>th</sup> February 2020  
Time: 14:00hrs – 17:00hrs  
Duration: 3 Hours  
Venue: GSB Lecture Room

### **Instructions**

1. There are **Six (6) Questions** in this paper
2. The paper has **Two (2) Sections**, each section with **three** questions
3. Each question carries **20 Marks**, *you are required to answer a total of **Five (5) Questions***
4. Answer **ALL** the questions in **Section A** and Choose **Any TWO (2)** Questions from **Section B**

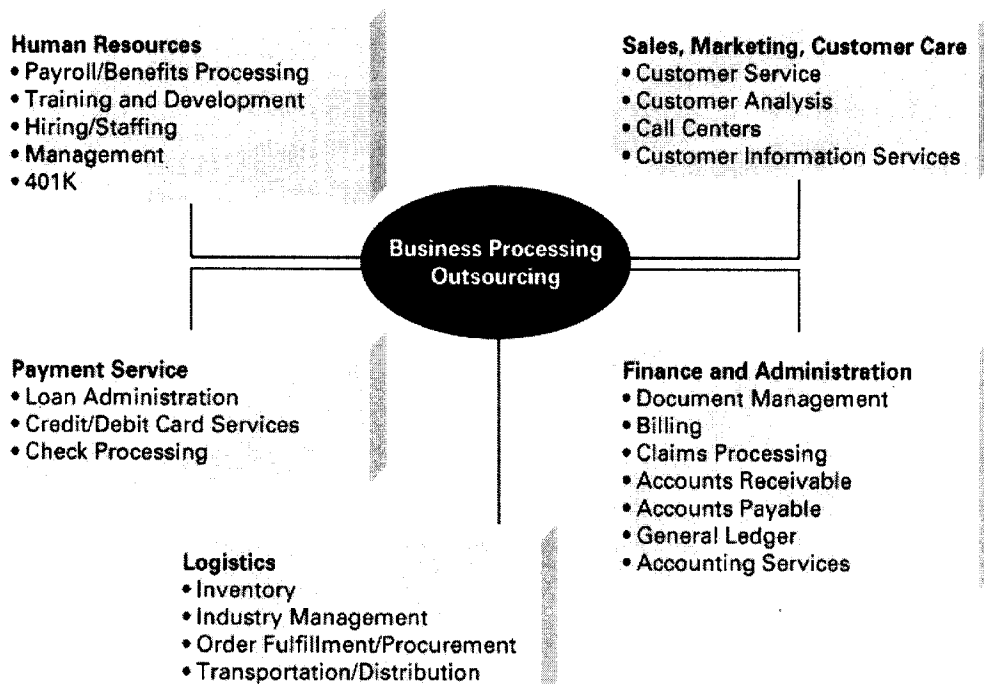
# **SECTION A**

This Section has **THREE** Questions. Answer **ALL** the questions

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## **QUESTION ONE**

- a) Discuss each of the following in relation to HRIS with examples where possible [4 Marks]
- HRIS
  - Information Systems
- b) Human Resource metrics are measurements used to determine the value and effectiveness of HR initiatives [6 Marks].
- Give any two examples of HR Metrics
  - How can you use metrics to conduct the cost/benefit analysis and increase managerial decision-making capacity
- c) The diagram below shows the four possible options for outsourcing of the HRIS software development [10 Marks].
- What is software Insourcing and Outsourcing
  - Using the diagram below, Discuss Business Process Outsourcing (BPO)
  - Give three advantages and three disadvantages of outsourcing

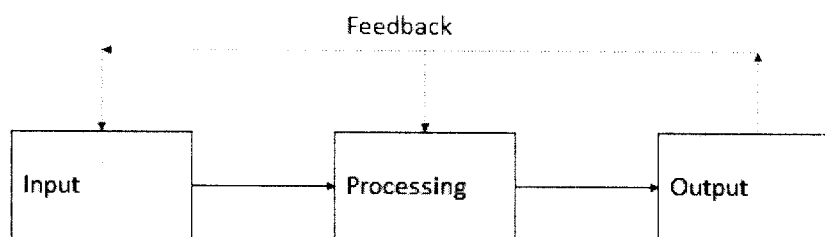


## QUESTION TWO

- a) The diagram below shows an extract of the Spreadsheet (Microsoft Excel) Used to track the metrics HRIS payroll metrics of 5 employees of a small company [12 Marks].

Regular Working Day		Over Time Rate									
Hours Per Day	8 Hours	K240									
Rate per Day	K120										
#	Employee ID	Last Name	First Name	Number of Days Reported for Work	Over Time Hours	Total Salary Based on Hours	Housing Allowance @ 20%	Transport Allowance @ 10%	Gross Pay	PAYE Tax @ 30%	Net Pay
1	Empy0001	Banda	Geroge	24	9						
2	Empy0002	Chanda	Janet	23	5						
3	Empy0003	Mudenda	Amu	22	8						
4	Empy0004	Simui	Francis	21	12						
5	Empy0005	Sishuwa	Yvonne	25	7						
Maximum				25	12						
Minimum				21	5						
Total				115	41						

- Write the **formulae** that can be used to compute the following for **Janet Chanda ONLY**
    - Total Salary earned based on Regular Hours and Overtime Hours Only
    - Gross Pay
    - Total Tax
    - Net Pay
  - Copy and complete the Table above and Use a Calculator to calculate and give the missing values in the table for all the five employees
- b) The diagram below shows the Schematic model of an information system.



Using the example above, discuss each of the following components below [8 Marks]

- Input
- Processing
- Output
- HR Information Systems Feedback

### **QUESTION THREE**

- a) Human Resources Information Systems (HRIS) sometimes fail because of a number of reasons. These include Unclear goals/objectives, System solves the wrong problem and Improper vendor/product selection [ 10 Marks]
- i. Discuss the three reasons above and show how they lead to HRIS failure
  - ii. Give any other four major reasons and discuss that may lead to failure of implementing the HRIS apart from the three mentioned above
  - iii. Discuss why it is very important to carefully develop information system for Human Resource
- b) A Database can be defined as a collection of data arranged for ease and speed of search and retrieval [10 Marks]
- i. Discuss the key functions of the **Database Management Systems** to the users
  - ii. Give any other two examples of **Database Management Systems** apart from Microsoft Access
  - iii. The Entity Relationship Model is used to show the Conceptual schema of a Database of organisation. It is largely made up of three basics components namely Entities, Relationships and Attributes. Briefly discuss each of the following by giving one example in each case
    1. Entities
    2. Attributes
    3. Relationships

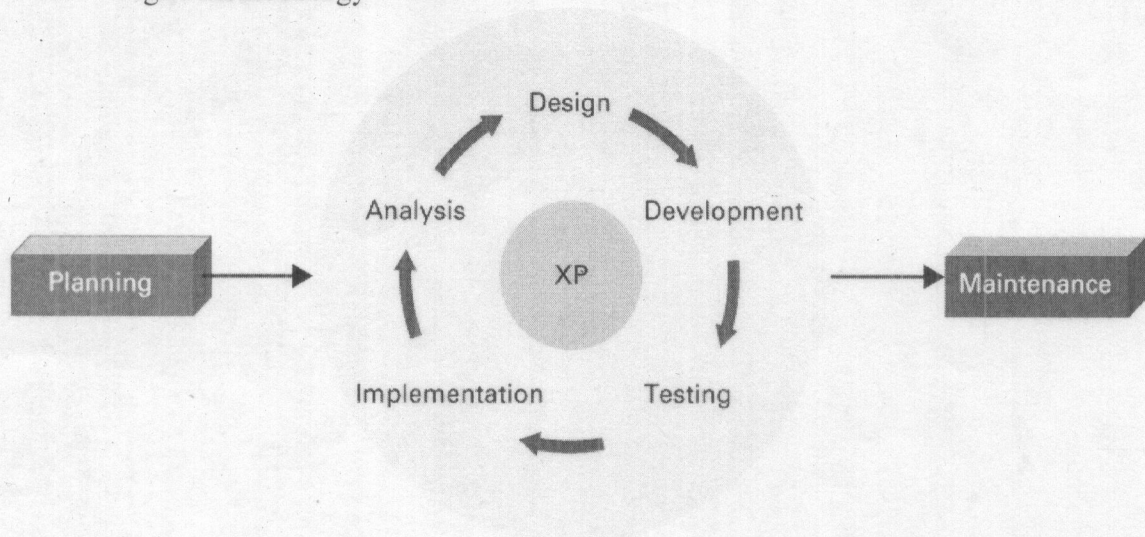
## **SECTION B**

This Section has **Three (3)** Questions. Choose any **Two (2)** Questions

### **QUESTION ONE**

- a) When developing the HRIS, there are different types of methodologies that can be used. The Diagram below shows one such example. Discuss the methods outlined below that can be used to develop the HRIS System. [12 Marks]

- i. Waterfall methodology
- ii. Rapid application development (RAD)
- iii. Extreme programming (XP)
- iv. Agile methodology



- b) The basic advantage of a Human Resource Information System (HRIS) is to computerize employee records and databases to maintain an up-to-date account of the decisions that have been made or that need to be made as part of a human resource management plan. The four principal areas of HR that are affected by the HRIS include;

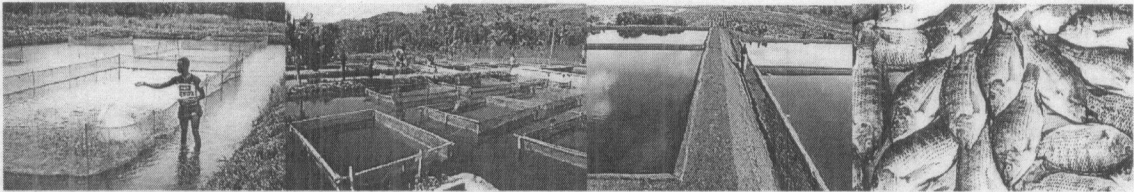
- i. Payroll
- ii. Time and Labour Management
- iii. Employee's Benefits
- iv. HR Management

Discuss in details each of the above principle area in relation to HRIS [8 Marks]



## **QUESTION TWO**

- a) You have decided to develop the Human Resource Information System (HRIS) for your personal business that you are running on your 2 acre piece of land in Lusaka. The faming personal business has fours workers (2 Males and 2 Females). In your business, you are in **Rearing FISH** which you supply to Restaurants, Lodges and Boarding Schools [20 Marks].
- Draw a well labelled diagram for the System Development Life-Cycle (SDLC) that you need to use when developing the HRIS
  - Discuss each stage using the family business as an example when developing the HRIS for the family business
  - Design a Table showing how you will keep the information in a Database for your HRIS using Microsoft Access



### **QUESTION THREE**

a) Human resource business information systems can be classified into the following five major areas.

- i. Transaction processing systems
- ii. E-commerce systems
- iii. Management information systems
- iv. Expert systems

Discuss each of the business information systems above and give examples in each case  
[10 Marks]

b) The company you work for has just learned that you recently graduated in a Human Resource Business programme at the University of Zambia. You specialized in Human Resource Business Information Management Systems as your major. In an effort by the company to improve on Human Resource Management for its employees, you have been requested to put a write-up as an expert to management on how they can best use HRIS to improve the company performance. They need details on **the process of how to build an Human Resource Management Information system**. In your write-up, the company management has requested for the following information

- i. Planning of the HR system
- ii. Organising Flow of Information
- iii. Implementation of the HR System
- iv. Feedback from Users of the HR System

**Give a full detailed write up to the company management by taking into account the four major points above. [10 Marks]**

**END OF EXAMINATION PAPER**



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**  
**SEPTEMBER 2021 FINAL EXAMINATIONS**

**COURSE:** HRM 4311: TRAINING AND DEVELOPMENT  
**DURATION:** THREE (3) HOURS  
**INSTRUCTIONS:** THIS EXAMINATION PAPER HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION HAS THREE (3) QUESTIONS. ANSWER ANY TWO QUESTION IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF THREE (3) QUESTIONS.

**SECTION A: MANDATORY (40 MARKS)**

1. ZESCO Ltd is one of the business organisations under the Industrial Development Corporation (IDC) which operates in the energy sector. Given the strategic nature of this entity to the economy, the government of the Republic of Zambia is worried about the continued power outages that have hit the institution and have potential to derail the much needed economic development of the country. To this end, the newly appointed Board of Directors for ZESCO have since instituted measures to ensure minimisation or complete eradication of these power outages. Among the key steps taken by the Board is the removal of senior management staff at the entity and replacing them with what they think are more competent staff. Apparently, the Board in its newly appointed management team has appointed you as Director – Human Resources.

Being a seasoned HR practitioner, you understand very well that for ZESCO Ltd to effectively deliver on its mandate, the entity needs to equip and capacitate its staff through effective implementation and management of the Training and Development HR function. Appreciating this fact, identify and discuss the key formal systems and tools that are required to be in place in order to effectively manage the Training and Development function at ZESCO.

**SECTION B: ANSWER ANY TWO QUESTIONS (60)**

2. Discuss any one theory of Learning and development of your Choice. Attention should be paid to the application of the theory in an organisation.
- 3: Employers offer training and development opportunities to their employees in order to improve their performance in their execution of duties. Identify and discuss the outcomes of effective training and development programmes which employees acquire after undergoing training.
4. Write short notes on the following concepts:
  - a) Philosophy of Learning and Development
  - b) Behaviourists Learning Theories
  - c) Learning and Development theories
  - d) Benefits of training and development
  - e) Reporting Learning and Development activities

**END OF EXAMINATIONS**

**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**JANUARY 2022 FINAL EXAMINATIONS**

**COURSE : HRM 4312 – HR METRICS AND ANALYTICS**

**DURATION : THREE (3) HOURS**

**INSTRUCTIONS : THIS EXAMINATION PAPER HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION B HAS FIVE (5) QUESTIONS. ANSWER ANY TWO QUESTIONS IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF FOUR (4) QUESTIONS.**

**SECTION A (COMPULSORY) – 70 MARKS**

1. Chipata City Council (CCC) is one of the largest councils in Zambia, employing 4000 people. In the last five years, CCC's revenue has not been matching the expenditure patterns. Its major sources of revenue include business licensing, ground rates, bill boards advertising, personal levy and crop levy. Central government funding in the form of Local Government Equalisation Fund has remained the same since 2015, while its costs have been increasing exponentially. Out of an annual budget of K3.8 billion, the Chipata City Council is only able to generate about K2.2 billion including the Local Government Equalisation Fund. This therefore, means that the Council has a huge financing gap of about K1.6 billion per annum. The Council's huge budget deficit has resulted in poor service delivery of social services to people who live, learn, work in or visit Chipata. The Council is not able to sustain its performance in the short, medium and long term, given its significant funding challenges.

A review of the Chipata City Council's data extracted from its Human Resource Information System over the past five years revealed the following:

- In terms of financial records, it was discovered that the Council generates about K1.7 billion, while the Local Government Equalisation Fund from the Central Government is about K500 million;
- K2.8 billion was being spent on payroll costs, including overtime allowances amounting to K1.2 billion;
- K400 million was being spent on pension and gratuity benefits every year;
- In terms of absenteeism, the data showed that in 2021, out of the 324 workdays, employees were absent from work on average as follows: employees in the Human Resources Department missed an average of 20 days; employees in the Finance and Business Licensing Department missed an average of 48 days; employees in the Civil Engineering and Maintenance Department missed an average of 85 days; employees in the Business Development Department missed an average of 83 days; employees in the Legal Department missed an average of 28 days; employees in the Public Health Department missed an average of 58 days; and employees in the Urban Planning Department missed an average of 65 days;

- In terms of talent acquisition, the Council in 2021 (January to December) hired for 15 key positions, with 95, 110, 150, 120, 259, 130, 147, 155, 144, 211, 166, 134, 145, 153 and 267 days time to fill respectively. In addition, on average, the positions were advertised on the 1<sup>st</sup> of every quarter and the advertisements were running for 10 days, while on average, candidates were only interviewed on the 30<sup>th</sup> day, after the closure of the advertisement.

### **REQUIRED**

- a) Calculate the revenue per FTE and in your view, what HR strategies should CCC embark on to transform and improve its financial performance. (7.5 marks)
  - b) Calculate both the time to fill and time to hire and as Director Human Resources at CCC, how do you intend to reduce the time to fill and time to hire? (7.5 marks).
  - c) Calculate the average absenteeism rate for employees in 2021 and what could be the possible reasons for the high absenteeism rate and what HR strategies would you recommend to reduce the absenteeism rate at CCC? And list some of the possible data sources being used to identify the causes of absenteeism at Chipata City Council. (12.5 marks)
  - d) Calculate the labour cost per FTE and discuss its implications on the operation of the Council. (5 marks)
  - e) Calculate the total labour cost as a percentage of the Council's revenue and explain its implications on the operation of the Council. (5 marks)
  - f) Calculate the labour cost expense as a percentage of the total expenses and discuss its implications on the operation of the Council. (5 marks)
  - g) Calculate the total cost of benefits as a percentage of the total compensation costs and explain its implications on the Council. (5 marks)
2. You are given the following additional information for Chipata City Council as at 31<sup>st</sup> December 2021:

As at 30<sup>th</sup> June 2020, CCC had 4900 employees and as at 31<sup>st</sup> December 2021, the number of employees was 4000. During this same period, the company lost 350 employees through dismissal, retirement and resignation.

The following additional information was also given as at 31<sup>st</sup> December 2021:

- Separation costs  
Exit interview cost for salary and benefits of both interviewer and departing employee during the exit interview = K30,000
- Replacement costs
  - (i) Advertising for job openings in the media = K80,500
  - (ii) Interview meetings (allowances for members of the interview panel) = K23,000
- Training costs
  - (i) Induction manuals and training materials = K54,000
  - (ii) Facilitators' allowances = K40,000

(iii) Hire of training venue (food and conference package) = K50,000.

**REQUIRED:**

- a) Calculate both the turnover rate and turnover costs at Chipata City Council and discuss their implications on the Council? **(5 marks)**
- b) In your opinion, what could be the possible reasons for the high turnover at CCC and what strategies would you be recommending to reverse the high employee turnover **(10 marks)**.
- c) Calculate overtime as a percentage of the total payroll costs and what could be the possible reasons for the high overtime costs and what strategies would you recommend to reduce overtime costs? **(7.5 marks)**.

**SECTION B (ANSWER ANY TWO QUESTIONS)- 30 MARKS**

3. With the aid of relevant examples, explain why firms use HR metrics and are moving forward towards a quantitative approach rather than a qualitative approach. **(15 marks)**
4. With relevant examples, write brief notes on the following concepts:
  - (i) Descriptive analytics **(5 marks)**
  - (ii) Predictive Analytics **(5 marks)**
  - (iii) Prescriptive Analytics **(5 marks)**
5. With relevant examples, discuss the various internal and external sources of HR data. **(15 marks)**
6. Discuss how learning analytics could be useful in the improvement of learning programmes and how some data sources could be useful for the application of analytics in learning and development. **(15 marks)**
7. Retirements, whether voluntary such as due to resignation or otherwise, are often valued in terms of financial loss and resultant risk. Relatively little focus is given on labour productivity or impact on workforce alignment – how the separation of one individual affects the workflow tailored around the individual when he was part of the firm. If this impact is assessed quantitatively, it will enable the firm to gauge actual workforce risk and create retirement plan accordingly. One such case in point is that of a global retail firm which conventionally implemented rich promotion packages and sought to enrich and retain talent within the firm. However, owing to the economic slowdown and decrease in demands of goods offered by the retailer, the firm witnessed a new challenge. A large number of its senior executives delayed retirement since they lacked significant work opportunities elsewhere in a slow economy. This led to stalling of career growth prospects of junior talent, where the highly talented were remunerated well while others were forced to leave the firm owing to lack of career progress. This had serious negative consequences for the business of the retailer, and it therefore had to redefine its retirement programme.

The firm was initially implementing a so-called build strategy, whereby it offered incentives to its employees for working within the firm and building on their talent. However, once the individual left the firm, no incentives were offered. This probably led to stalling of career progress at the junior level, since senior employees were unwilling to retire. Economic slowdown added to this pile of miseries for both the firm and its employees. To substantiate this finding and gain deeper insight, implemented analytics on the movement of employees from new hires to exit at each job level. It discovered that employee movement in terms of promotion was significantly high at the first two job levels, and dropped significantly at higher levels. The ratio of new hires to promotes further dropped at the next promotion level (less than one), creating 'choke points' in the organisation. These chokepoints were especially pertinent at job levels 4 and 5 (middle management level) of the firm. This implied that beyond a professional level, the rate at which talent movement occurs in the firm is very low.

Such an analysis had several important implications for the firm. This implied that for each retirement delay, a backup of more than five employees due for promotion was created. For example, analytics revealed that if 4% of employees in the firm were due for retirement and almost half of them choose to delay their retirement plans, about 10% of employees would experience choke points that were blockage in promotions.

Gaining wisdom from this outcome of analytics implementation, the firm decided to redesign its retirement plan. It decided to align outcomes of analytics with the functioning of its business. Since the retailer endorsed products which had long life cycles, it was important to ensure employee continuity. And also, since retail firms are relationship-driven, it is important to ensure employee tenure to maintain relationships. Therefore, the firm inculcated retirement benefits and health benefits programmes, enabling the employees to retire since they would receive incentives at retirement, and also paving way for promotions in the firm. Strengthening the point in the implementation of such a retirement programme, metrics were introduced to implement analytics to assess the impact of the new retirement programme and also quantify turnover behaviour. The firm realised that the most important predictor for turnover in the firm was lack of promotion and lateral moves within the firm such as job rotation. Further participation in the retirement and health benefits programme also decreased employee turnover and managing retirements effectively. Despite other organisational factors like pay differences, leaves, disciplinary actions, etc., the single most important contributor to retention for employees at junior levels was participation in these benefits programmes.

To enhance understanding of the factors that affect an employee's decision to retire, the firm also conducted the empirical analysis. It conducted a conjoint analysis to discover the degree of importance employees attach to different organisational and individual factors when contemplating retirement. It also built a statistical model to predict whether or not an employee will retire at the point of eligibility, based on factors on employee behaviour. As a result, the firm's performance metrics suggest that almost all the CEOs spent their entire tenure at the firm itself, and a majority of its employees in senior leadership positions hold a service record of more than 15 years. The firm has been able to significantly reduce turnover by enabling timely retirements and promotions. *Source: Bulvid and Nalbantian (2014).*

## **REQUIRED**

- (a) Discuss the challenges faced by the retailer in managing retirements.

## **HR METRICS FORMULAE**

### **1. Revenue per Employee:**

Revenue per employee = Total revenue ÷ Total number of employees

### **2. Employee Turnover**

Turnover rate = Number of employee terminations ÷ Average number of employees

### **3. Turnover costs**

Turnover costs = Separation costs + Replacement costs + Training costs

### **4. Overtime Percentage**

Overtime percentage % = Overtime pay amount ÷ Total payroll

### **5. Absenteeism**

Absenteeism % = Workdays missed ÷ Total workdays scheduled x 100%

### **6. Profit per Employee**

Profit per employee = Business profit ÷ Number of employees

### **7. Timesheet & Scheduling Match**

Timesheet / Scheduling match = Number of scheduled hours ÷ Number of hours worked

### **8. Health Care Costs per Employee**

Health care costs per employee = Total health care costs ÷ Number of employees signed up for health care

### **9. Cost of HR per Employee**

Cost of HR per employee = Total HR salary and benefits ÷ Number of employees

### **10. Training Spend per Employee**

Training spend per employee = Total training costs divided by ÷ Number of employees

### **11. Training Return on Investment**

Training return on investment (ROI) = Cost of employee training ÷ Value of increased performance

### **12. Time to Productivity**

Time to productivity = Date new hire hit the target (as defined in your performance management system) – New hire start date

### **13. Time to Hire**

Time to hire = Start date – Date of first interview

### **14. Annual Recruiting Costs**



- (b) Identify and explain the issues in organisational strategies which led to the challenges in the article.
- (c) How did analytics and use of metrics improve the situation at the firm?

**(15 marks)**

**-----END OF QUESTION PAPER-----**

Annual recruiting costs = Total off all hiring expenses the year (software + advertising + fees)

**15. Offer Acceptance Ratio**

Offer acceptance ratio = Number of offers accepted ÷ Total job offers extended

**16. Time to Fill**

Time to fill = Average number of time to fill measurements for each position you filled in a given period (e.g. a year) and then divide by the number of positions.

**17. Labour Cost per FTE**

Labour Cost/FTE

**18. Labour Cost Revenue %**

Labour Cost/Revenue x 100%

**19. Labour Cost Expense %**

Labour Cost/Operating Cost x 100%

**20. Benefits as % of Total Compensation**

Benefits/Labour Costs x 100%

***STUDENTS ARE ALLOWED TO USE THE ABOVE FORMULAE DURING THE EXAMS***

**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**FEBRUARY 2020 SUPPLEMENTARY/DEFERRED FINAL EXAMINATIONS**

**COURSE : HRM 4312 – HR METRICS AND ANALYTICS**

**DURATION : THREE (3) HOURS**

**INSTRUCTIONS : THIS EXAMINATION PAPER HAS TWO SECTIONS. SECTION A IS COMPULSORY AND SECTION B HAS FOUR (4) QUESTIONS. ANSWER ANY TWO QUESTIONS IN SECTION B. YOU ARE REQUIRED TO ANSWER A TOTAL OF FIVE (5) QUESTIONS.**

**SECTION A (COMPULSORY) – 50 MARKS**

1. Critically discuss the factors that have led to the increased organisational interest in HR metrics and workforce analytics (**10 marks**).
2. With relevant examples, write brief notes on the following concepts:
  - (a) Descriptive analytics (**5 marks**)
  - (b) Predictive Analytics (**5 marks**)
  - (c) Prescriptive Analytics (**5 marks**)
3. Imagine that you are the Director of HR for a company in the technology industry. The industry is rapidly changing and very fast-paced. Unfortunately, your company has not been performing well compared to competitors. The Revenue Per Employee and Profit Per Employee metrics are important metrics which are used to calculate the productivity and profitability of a company.

In view of the above, you have been given the following data to assist you with preparation of the annual report (using HR metrics and analytics models) for consideration by the Board of Directors at its next meeting:

Year	AAR	ATR	RPE	PPE	AOP
2017	13%	36%	1.310	K5000	23.31%
2018	19%	21%	0.800	K3500	26.04%
2019	27%	23%	0.100	K2900	29.78%

AAR = Annual Absenteeism Rate

ATR = Annual Turnover Rate

RPE = Revenue Per Employee

PPE = Profit Per Employee

AOP = Annual Overtime Percentage (as a percentage of the payroll costs)

**Required**

- a) Using descriptive and predictive HR analytics, discuss the financial performance of the company.
- b) After you have analysed the financial performance, what strategies should the company implement to improve the situation?
- c) How can HR contribute to this effort or be actively involved in the process?

**(25 marks)**

**SECTION B (ANSWER ANY TWO QUESTIONS)- 50 MARKS**

4. Throughout the many facets of HR functions (e.g. recruitment, compensation, performance management, training and development, HR planning, etc.), tracking metrics is a key success.

**Required**

- (a) Select three (3) areas of HR functions and propose best strategies or best practices that a company of your choice could implement that are relevant to those functions.
- (b) Critically discuss how you would use metrics to determine where the company currently stands and what will happen to the company if nothing is done about the current status, and what will happen if the company implements your proposed strategies.

**(25 marks)**

5. You are given the following information for the three companies indicated in table 1 below as at 30 June 2019:

Table 1

		Puira Company	Suserite Company	Collenite Company
1	Revenue	K3,245,111,000	K520,000	K9,213,000,000
2	Number of Employees	107	56	450
3	Expenses	K1,510,100,000	K250,000	K5,240,000,000

**Required:**

- (a) Calculate the revenue per employee and using the same revenue per employee ratio, which company is more productive? **(7.5 marks)**
- (b) Using predictive and prescriptive analytics, propose strategies that will turn around less productive companies. **(10 marks)**
- (c) Assuming the only expenses faced by each company are salaries, calculate the profitability ratio and which company is generating a profit? **(7.5 marks)**

6. As at 30 June 2018, Collenite Company had 412 employees and as at 30 June 2019, the number of employees was 450. During this same period, the company lost 34 employees through dismissal, retirement and resignation.

**You are given the following additional information for Collenite Company as at 30 June 2019:**

(i) Separation costs

Exit interview cost for salary and benefits of both interviewer and departing employee during the exit interview = K23,000

(ii) Replacement costs

(a) Advertising for job openings in the media = K55,500

(b) Interview meetings (allowances for members of the interview panel) = K88,000

(ii) Training costs

(a) Induction manuals and training materials = K16,000

(b) Facilitators' allowances = K35,000

(c) Hire of training venue (food and conference package) = K35,000

**Required:**

- (a) Calculate both the turnover rate and turnover costs for Collenite Company and critically analyse the implications of the computed turnover rate and turnover costs on the Company? **(15 marks)**
- (b) Critically discuss the possible consequences of turnover for both Collenite Company and employees **(10 marks)**
7. When Evans Mukuka arrived as Director, Human Resources at a leading telecommunication company in December 2017, he was not quite sure what he wanted or needed to do. Coming from a renowned bank in Zambia, he was used to having information about the effectiveness of all current operations, including from the HR Department; yet, as he quickly learned, these data were not available for HR operations and programmes, nor were there systems in place to generate them. He recognized the potential value of having even simple descriptive statistics about the HR organization, its people, and its operations—to highlight potential opportunities and how changes in these values could signal potential problems. However, since these data were not currently available or easily developed, he created a small team, consisting of staff from HR, ICT and Finance Departments. The team's assignment was to collect data about the human capital in the organization in an effort to learn more about the organization and its people, which Mukuka was now charged with supporting.

The team's analysis highlighted a unique characteristic of the Telecommunication Company workforce—all of its senior managers were at least 56 years old and the statutory retirement age was 60 years; it was taking long to fill vacancies in the company and in some cases, strategic positions had remained vacant for over one year despite having been advertised; the operational costs were too high and 90% of the total operational costs accounted for staff costs; the staff attrition rate was 25% and 75% of the staff turnover was attributable to technical staff – the poor network connection was largely due to the high attrition rates among the technical staff; the company's revenue

and profit had drastically dwindled; some departments were overstaffed; and staff in the call centre were rude and were failing to resolve most of the customers' complaints.

**The team was also given the following additional information:**

- (i) On average, Customer Service Staff missed 13 of 28 work shifts in a month;
- (ii) Of the K23,010,000 monthly payroll costs, K6,300,000 was overtime.

**Required**

- (a) Identify the key HR metrics in the article above and associated metrics and to what extent can they be used to improve operations in this company?
- (b) Calculate absenteeism rate for the Customer Service Staff and what could be the possible reasons for the high absenteeism rate among this category of staff?
- (c) Calculate overtime as a percentage of the total payroll costs and what could be the possible reasons for the high overtime costs and what strategies would you recommend to reduce overtime costs?

**(25 marks)**

**-----END OF QUESTION PAPER-----**

## **HR METRICS FORMULAE**

### **1. Revenue per Employee:**

Revenue per employee = Total revenue ÷ Total number of employees

### **2. Employee Turnover**

Turnover rate = Number of employee terminations ÷ Average number of employees

### **3. Turnover costs**

Turnover costs = Separation costs + Replacement costs + Training costs

### **4. Overtime Percentage**

Overtime percentage % = Overtime pay amount ÷ Total payroll

### **5. Absenteeism**

Absenteeism % = Workdays missed ÷ Total workdays scheduled

### **6. Profit per Employee**

Profit per employee = Business profit ÷ Number of employees

### **7. Timesheet & Scheduling Match**

Timesheet / Scheduling match = Number of scheduled hours ÷ Number of hours worked

### **8. Health Care Costs per Employee**

Health care costs per employee = Total health care costs ÷ Number of employees signed up for health care

### **9. Cost of HR per Employee**

Cost of HR per employee = Total HR salary and benefits ÷ Number of employees

### **10. Training Spend per Employee**

Training spend per employee = Total training costs divided by ÷ Number of employees

### **11. Training Return on Investment**

Training return on investment (ROI) = Cost of employee training ÷ Value of increased performance

### **12. Time to Productivity**

Time to productivity = Date new hire hit the target (as defined in your performance management system) – New hire start date

### **13. Time to Hire**

Time to hire = Start date – Date of first interview

### **14. Annual Recruiting Costs**

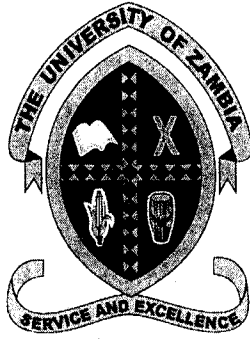
Annual recruiting costs = Total off all hiring expenses the year (software + advertising + fees)

### **15. Offer Acceptance Ratio**

Offer acceptance ratio = Number of offers accepted  $\div$  Total job offers extended

***STUDENTS ARE ALLOWED TO USE THE ABOVE FORMULAE DURING THE EXAMS***





**THE UNIVERSITY OF ZAMBIA**  
**GRDUATE SCHOOL OF BUSINESS STUDIES**  
**2019 ACADEMIC YEAR FINAL EXAMINATIONS**  
**UNDERGADUATE DEGREE IN HUMAN RESOURCE MANAGEMENT**  
**HRM4321 – GLOBAL DIMENSIONS**

**Time allowed: Three (3) hours**

**INSTRUCTIONS**

1. There are Seven (7) questions
2. Answer any Five (5)

**Question One [Total 20 Marks]**

- a. Discuss five(5) activities in International Human Resource Management
- b. State three(3) country categories involved in IHRM

**Question Two [Total 20 Marks]**

- a. Discuss three(3) approaches to IHRM
- b. Discuss five (5) dimensions of cultural diversity

**Question Three [Total 20 Marks]**

- a. Highlight three (3) categories in which an employee can be categorised in IHRM
- b. Discuss five (5) steps to undertake in International staffing

**Question Four [Total 20 Marks]**

- a. Discuss four(4) ways in which mergers and acquisitions can take place
- b. State five (5) stages involved in Mergers and Acquisitions

**Question Five [Total 20 Marks]**

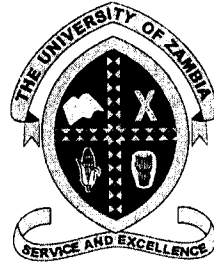
- a. Discuss four (4) areas covered in a reward strategy
- b. Describe four (4) challenges faced in IHRM

**Question Six [Total 20 Marks]**

- a. State three (3) employee categories involved in IHRM
- b. Define
  - i. *International Alliances*
  - ii. *International Joint ventures*

**Question Seven [Total 20 Marks]**

- a. Discuss four (4) salient points involved in performance management
- b. Highlight eight (8) factors involved in a retention strategy



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

## **Undergraduate Examinations**

**January, 2021**

## **HRM1: OCCUPATIONAL HEALTH AND SAFETY**

### **Instructions Format**

1. Time Allowed: 3 hours
2. There are two (2) sections in this paper, section A is compulsory
3. Pick two (3) questions from section B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**SECTION A (compulsory) Answer all question in this section**

**Question one**

- a) Give three reasons/obligations why OHS is important (3 marks)
- b) State any three (3) principles of OSH management (6 marks)
- c) Mention four Sources of work related stress in the organisation (4 marks)
- d) What measure can the organisation use to reduce work related stress levels (5 marks)
- e) State five benefits of health and safety management (5 marks)
- f) Outline five offenses an employer may commit against an authorized officer? (5 marks)
- g) What is the role and composition of the Health and safety Committee? (5 marks)
- h) What is the importance of risk assessment? (3 marks)
- i) Distinguish a hazard from a risk (4 marks)

**Total 40 marks**

**SECTION B (pick three (3) questions)**

**Question two**

- a) Explain the obligations of any employer to OHS. (20 marks)
- b) Explain the process of accident investigation and prevention (10 marks)

**Total 20marks**

**Question three**

- a) Explain using practical examples at each stage the accident causation theory by Heinrich (10 marks)
- b) List the 10 axioms of axioms of axiom prevention by Heinrich (10 marks)

**Total 20marks**

**Question four**

- a) With two examples for each type provide a description of the five (5) types of hazards in organisations. (10 marks)
- b) What are the legal implications of failing to identify hazards and prevent accidents)? (10 marks)

**Total 20marks**

**Question five**

- a) Give 4 examples of an authorised officers (4 marks)
- b) What is the role of an inspector (an authorised person) according to the Zambian laws? (12 marks)
- c) Mention four Acts or laws that enforce OHS in Zambia (4 marks)

**Total 20marks**

End



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

BSc Human Resource Management

**January 2022**

### **HRM: OCCUPATIONAL HEALTH AND SAFETY**

#### **Instructions Format**

Time Allowed: **3 hours**

There are two sections in this paper section A is compulsory

Answer any three (3) questions from section B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: COMPULSORY (40 marks)

- i. Occupational health is solely the responsibility of the owners of the factors of production TRUE OR FALSE
- ii. Counselling is a process or activity that takes place when an individual uses a set of techniques or skills to help another take responsibility for and to manage his/her own decision making whether work related or personal and helps in reducing stress. TRUE OR FALSE
- iii. ....to ensure the achievement of the organizations objectives, or purpose without unnecessary interruptions
  - a. Occupational health and safety
  - b. Risk assessment
  - c. Occupational safety
  - d. Accident prevention
- iv. To identify potential hazards, provide effective safety facilities and equipment, and take prompt remedial action we need the following except?
  - a. Comprehensive and effective systems for reporting all accidents causing damage or injury
  - b. Adequate accident records and statistics.
  - c. Systematic procedures for carrying out safety checks, inspections and investigations.
  - d. Methods of ensuring that safety equipment is properly maintained and used.
  - e. none of the above
- v. Which of the following is not a potential consequence for a business of poor standards of health and safety practice?
  - a. Reduced employee moral
  - b. Increased insurance premiums
  - c. Reduced social activity and independence
  - d. Bad publicity and loss of reputation.
- vi. Which of the following is not a good reason for an employer to investigate accidents which happen at work?
  - a. For insurance purposes
  - b. demonstrate to their employees that they care
  - c. To prevent similar accidents happening again
  - d. To fine employees for damaging equipment

vii. Which of the following best describes “accidents”?

- a. They are usually preventable
- b. They cannot be avoided
- c. They are completely unpredictable
- d. They only happen to people who deserve them

viii. Which of the following best defines the term “Hazard”?

- a. Anything at work that can potentially cause harm
- b. The probability of being harmed at work
- c. The potential seriousness of an accident at work
- d. The consequence of not completing a risk assessment

ix. As an employer you must supply your employees with personal protective equipment:

- a. If they pay for it
- b. Once a year
- c. If they need it to be protected
- d. If it is in your contract of employment

x. Which of the following factors contribute to accidents and ill-health in the workplace?

- a. Human factors
- b. Environmental factors
- c. Work factors
- d. All of the above

### **Question Two**

- a) What will the tribunal consider in the determination of reasonably practical? (5marks)
- b) State five (5) unsafe acts and five (5) unsafe conditions (10marks)
- c) What are the requirements of a good accident prevention programme? (5marks)
- d) What is the functions and composition of the Health and safety Committee? (10 marks)

## **SECTION B: CHOOSE ANY THREE**

### **Question Four**

With examples provide a description of the types of hazards in organisations. How can each of the examples given in your answer be prevented or minimised? **(20 marks)**

### **Question Five**

Stress is one of the Hazards that silently kill the organisation. Explain the sources, types and measures that can be put in place to manage the levels of stress in an organisation **(20marks)**

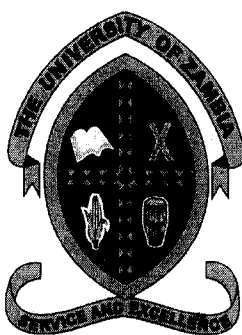
### **Question six**

- a. Discuss the role of policy in the management of health and safety. Describe the elements in the policy. **(10marks)**
- b. The Occupational Health and Safety Act, 2010 [No. 36 of 2010] establishes the existence of the Occupational Health and Safety Institute. What are the functions of this institute **(10marks)**

### **Question Seven**

- b. Describe using practical examples at each stage the accident causation theory by Henirich **(10 marks)**
- c. Explain risk assessment, its purpose and ways in which risk can be measured **(10marks)**





**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**HUMAN RESOURCE STRATEGY /HUMAN RESOURCE PLANNING**  
**FINAL EXAMS**

**DURATION; 03HOURS**

**INSTRUCTIONS**

**ANSWER 5 QUESTIONS ONLY (THREE QUESTIONS FROM SECTION A AND TWO QUESTIONS FROM SECTION B). QUESTION 1 FROM SECTION A IS COMPULSORY. EACH QUESTION CARRIES 20 MARKS.**

## **SECTION A**

**ANSWER THREE QUESTIONS.Q1 IS COMPULSORY.**

### **QUESTION ONE (COMPULSORY)**

A fit between demands for creativity and abilities for creativity is related to lower strain and higher job satisfaction. By incorporating both the Supply Value and Demand ability versions of fit, assess this proposition. **(20 Marks.)**

### **QUESTION TWO.**

Strategic Human Resource Management is an evolving concept which is still at its nascent stage and its relevance to organizations is immensely gaining ground. Illustrate the HR Value Chain and explain to what extent the HR Strategic scan can influence the Value Chain. **(20 marks)**

### **QUESTION THREE.**

In order to ensure the growth and development of most organizations in Zambia, the efficiency of the Human Capital must be augmented in the right perspective. HR traditional concepts suggested that expenditure in HR is treated as a charge against revenue as it does not create any physical assets.

Using your knowledge of HR accounting answer the following questions;

- a) Explain in detail the Monetary and non-Monetary measurement methods of HR Accounting.  
**(10MARKS)**
- b) Discuss the merits and limitations of the Cost Approach method in Human Resource Accounting**(10MARKS)**

### **QUESTION FOUR**

Cumulative research streams in the SHRM literature have proven the advantageous existence of the synergistic effect of HRM practices in all 21<sup>st</sup> Century organizations globally. By incorporating your scholarly ideas of internal fit, external fit, and the focus on employees' cognitive mechanisms Explain the Return on Investment approach in Human Capital valuation with an illustration.**(20 Marks)**

### QUESTION FIVE

The Person-Environment Fit paradigm has been successfully integrated within a developmental framework. It postulates that the combination of an individual's developmental stage and the surrounding environment produces adaptive change within the individual thus defeating strategic misalignment.

Explain in detail how synchronizing the trajectory of development to the characteristics and changes in the organization fosters strategic alignment. **(20 Marks)**

### SECTION B

**ANSWER ANY TWO QUESTIONS.**

### QUESTION SIX

The name "Balanced Scorecard" comes from the idea of looking at strategic measures in addition to traditional financial measures to get a more "balanced" view of performance. The concept of balanced scorecard has evolved beyond the simple use of perspectives and it is now a holistic system for managing strategy. Developed by Kaplan and Norton, a key benefit of using a disciplined framework is that it gives organizations a way to "connect the dots" between the various components of strategic planning and management, meaning that there will be a visible connection between the projects and programs that people are working on, the measurements being used to track success (KPIs), the strategic objectives the organization is trying to accomplish, and the mission, vision, and strategy of the organization. Answer the following questions on the BSC;

- a) Kaplan and Norton indicated that the metaphor for the BSC should be a flight simulator, not a dashboard of instrument dials. Explain what is meant by this assertion. **( 10 Marks)**
- b) Discuss and compare the Measure Network with the Balanced Scorecard highlighting the criticisms of the BSC. **(10Marks)**

### **QUESTION SEVEN**

Porters five forces like PEST (or SLEPT) analysis, helps organizations to understand their task, industry or competitive environment. using your understanding of the pest analysis show how the following strategies can overcome competitive rivalry;

- a) Horizontal integration **(10Marks)**
- b) Vertical integration. **(10 Marks)**

### **QUESTION EIGHT**

Discuss the Human resource forecasting process and its importance in a hypothetical 21<sup>st</sup> Century Zambian business environment. **(20 Marks)**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**FINAL EXAMINATION**

**HRM 6011: EMPLOYMENT LAW AND LABOUR RELATIONS**

**DATE: 6<sup>th</sup> SEPTEMBER 2021**

**TIME: 09:00 -12:00 HRS**

**DURATION: 3 HOURS**

**VENUE: SPORTS HALL**

**INSTRUCTIONS**

1. There are Eight (8) Questions in this paper.
2. The Paper has Two (2) Sections, each section has three questions.
3. Each question carries 20 marks and you are required to answer **a total of 5 questions**.

## **Section A**

1. Kalombo Chilongoshi is a graduate from the University of Zambia who has recently been employed by one of the leading Telecommunications Company in Zambia. Kalombo Chilongoshi is employed as an Information Technology Manager and in charge of the IT Department at the Company. During the course of his employment, he notices that the Managing Director one Mr Mutinta Chilala treats his employees who are white and who are expatriates are treated more favourably than other Zambian employees. Kalombo Chilongoshi at one time overhears Mr Chilala conveying to the Human Resource Manager to preferentially hire Tonga speaking or white People. Further, Mr Chilala Mutinta prefers female employees as opposed to males whom he describes as being more dedicated to their work. You further learn that Mr Mutinta Chilala has been texting Mrs Sanders trying to sleep with her but she has been refusing his advances. Kalombo Chilongoshi confides in you on his experience at the Telecommunications company.

Advise Kalombo Chilongoshi on the labour relations issues arising in his employment setup with the use of case law.

2. Peter Bwalya is a Fourth year law student at the University of Zambia comes to you for advice concerning an assignment he has been given in his employment law course. Peter Bwalya explains that the legal problem revolves around the video technology engineers whose conditions are as follows: the video tech engineers are free to come at the time that is convenient to submit their video content; they are free to choose the content that is featured in their videos; they are subject to the

discipline of the company; they provide their own tools of trade; the company does not pay their statutory contributions or insurance; they are free to provide video tech content to other broadcasting networks; when they report for work they are required to dress in company uniforms.

Advise Peter Bwalya with the use of authorities whether the Video Tech operators are employees or independent contractors.

3. Write short notes and give examples where possible on the following terms:

- a) Contract of Employment;
- b) Factors affecting capacity;
- c) Contract for services;
- d) Unfair dismissal; and
- e) Constructive Dismissal.

4. The case of **Kylie v CCMA (CA 10/08)** is a controversial case relating to the classification of and protection of a worker. Give a brief summary of the facts and the principles espoused by the said case.

## **Section B**

5. Historically the rights of persons with disabilities the world over have been subject of unequal treatment, marginalization and discrimination founded on ignorance by members of society in understanding the state or condition of disability. This has resulted in the marginalization of persons with disabilities from mainstream society and exclusion from

participation in the social, economic and political spheres of persons with disabilities in their respective countries thereby condemning them into cycles of poverty and anomie.

Highlight some of the legislative interventions as well as other International Instruments that promote the employment of persons with disabilities.

6. Write short notes and give examples where possible on the following terms:

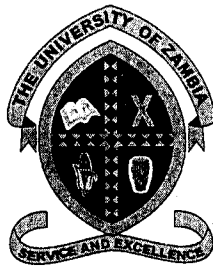
- a) Wrongful dismissal;
- b) Indirect discrimination;
- c) Affirmative Action;
- d) Labour Commissioner; and
- e) Remedies for breach of an employment contract.

7. Mapange Nsapato is a seasoned and active union member occupying the position of Secretary General in the New Deal Union which protects the interests of teachers in Zambia. Mapange is employed as a teacher at Kabangwe High School. The Head teacher of Kabangwe High School recently called Mapange into his office and threatened him about his union activities and that his continued activism may lead to his dismissal from employment. Mapange comes to you for advice on the threats he has received from the Head Teacher of Kabangwe High School.



Advise Mapange on the legality of the threats on account of Mapange's union activities.

8. The case of **MQueen Zaza v ZESCO** highlights the salient requirements whenever a company is undertaking a redundancy. Highlight with authorities the procedural requirements that must be met prior to effecting a redundancy as well as the principles enunciated in the above stated case.



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**All Under Graduate Programmes**

**Wednesday 12<sup>th</sup> June 2019**

### **SEM1011: BUSINESS COMMUNICATION**

#### **Instructions Format**

Time Allowed: 3 hours

There are Three sections in this paper.

Sections A and B are Compulsory. Choose two questions from section C

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A ANSWER ALL QUESTIONS

You have been asked to give a lecture on academic essay writing. Prepare a presentation for your audience (20 marks)

## SECTION B ANSWER ALL QUESTIONS

(30 marks)

1. Which of the following is NOT an external business written communication?
  - a. Complaint letter
  - b. Curriculum Vitae
  - c. Memo
  - d. Enquiries letter
2. Communication can be defined as....
  - a. The process of transforming information and meaning between senders and receivers in organisations.
  - b. Transfer of information from point A to point B.
  - c. The process of transforming information and meaning between senders and receivers using at least one medium.
  - d. None of the above
3. ... The following are types of communication except?
  - a. Written
  - b. Oral
  - c. Non verbal
  - d. All of the above
  - e. None of the above
4. Which of the following is not a barrier to communication?
  - a. Networks
  - b. Information overload
  - c. Noise
  - d. Lack of interest
  - e. None of the above
5. Which sequence best describes the effective communication process?
  - a. Message, Sender, Receiver, Medium, feedback.
  - b. Message, Receiver, Sender, Medium, feedback.
  - c. Decoder, Message, Medium, Receiver, feedback.
  - d. Encoder, Message, Medium, Receiver, feedback.
  - e. None of the above.
6. The purpose of objectives in your presentations is to
  - a. Guide your presentation
  - b. Help you decide the content of your presentation
  - c. Both A and B
  - d. None of the above

7. . What is the importance of rehearsal before your final presentation?
- Know your visual aids
  - Evaluate your delivery
  - Time your self
  - All the above
  - None of the above
8. . Mention two examples of barriers to effective communication in each of the following .. (8marks)
- physical .....
  - Emotional .....
  - Cultural .....
  - perceptual .....
9. . Mention four (4) things to consider when selection a medium of communication (4marks)
10. . Mention any four (4) advantages of written communication (4marks)
11. Note taking is import for retrieval of information and aiding the learning process. Outline five (5) principles of note taking. (4marks)
12. Clearly, explain the seven (7) Cs for effective communication (14 marks)
13. Illustrate the communication process (5 marks)

## SECTION B (CHOOSE FOUR QUESTIONS)

### Question One

As the sales manager of ACM Electronic Equipment (12A, great east Road, Lusaka Zambia. You have recently received a number of complaints from your customers about the way they have been treated. Some of them have not been served for more than half an hour. Most of the complaints took place during lunch hour which is ACME's peak time for business. This has been brought to the attention of your boss, Mr Peter Lungu the general manager's a

#### **Required:**

You are told to write a memo to all the sales staff instructing them how they should deal with visitors and customers who visit the company. They should take shifts for lunch and maintain at least a certain number of staff at all times. They should also come to work on time and any tardiness will be subject to disciplinary action. They also need to clean up their own area of work before they leave work for the day. You are also required to prepare a notice for your customers

(25 marks)

## Question Two

You are the office manager for Smart System, Inc, a start-up IT firm in Lusaka (22/F, Linkage Building, 188 president Street, Lusaka). Recently you bought 10 modems from Precision Supplies, a computer hardware supplier in Kitwe (12/F, Parkland Building, 276 Harcourt Road, Kitwe). Two weeks after installing the modems to the computer systems in your office, you discovered that two of the modems could not function properly. Since you have already paid the full amount for the modems, you are entitled to enjoy the two-year warranty that comes with the product including free replacement for any products bought within one month.

You called their customer service department to ask for a replacement last Wednesday and was told that the replacement would be delivered to your office the following Monday. It is now already Wednesday and you still have not heard anything from them. You really need the two modems immediately for your company is working on a major project with an approaching deadline. This is the first time you have ordered from Precision Supplies and may be the last.

### Required:

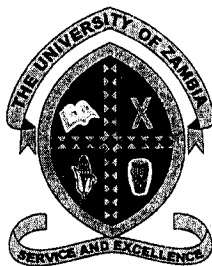
- a. Write a letter of complaint to demand for an immediate replacement or a full refund. (15 marks)
- b. Write a memo to your managing director explaining what has transpired (10 marks)

**Total 25marks**

## Question Three

The marketing department in your organisation has not met its target in the last three months Write a report on the recent happenings in your organisation (25 marks)

**The End**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**All Under Graduate Programmes**

**Wednesday 12<sup>th</sup> June 2019**

### **SEM1011: BUSINESS COMMUNICATION**

#### **Instructions Format**

Time Allowed: 3 hours

There are Three sections in this paper.

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## SECTION B (CHOOSE FOUR QUESTIONS)

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(25 marks)



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**Total 25marks**

## Question Three

The marketing department in your organisation has not met its target in the last three months Write a report on the recent happenings in your organisation (25 marks)

**The End**



# THE UNIVERSITY OF ZAMBIA

## Graduate School of Business

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### **SEM1021 – Introduction to Information Management & Technology**

### **2019 FINAL EXAM**

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Date : Monday 10<sup>th</sup> June 2019  
Venue : DRGS  
Time : 09:00 – 12:00 hrs  
Duration : 3 hours

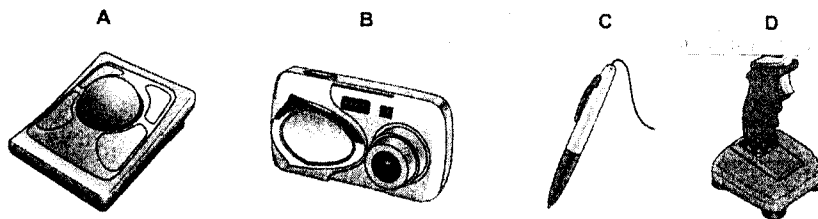
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#### Instructions

1. This exam has **two** (2) sections.
2. Answer **all** questions in **section A** and **Any** three (3) questions from **section B**.
3. Write your answers on the answer sheet provided.

**section A (Answer all questions in this section)****QUESTION 1 [20 marks]**

- a) Name the input devices A, B, C and D using the words from the list. [4 mark]



- b) Draw a table showing the order and value of the following metrics: peta, mega, tera, giga. [5 marks]
- c) A bit in computing can be physically represented by an area of metal particles on the surface of a disk that are either magnetically charged or not. Give 2 other ways a bit can be physically represented. [4 marks]
- d) Give 2 advantages of going digital as well as 2 disadvantages. [4 marks]
- e) Give 6 components you would look for when shopping for a computer. [3 marks]

**QUESTION 2 [20 marks]**

- a) Give 4 reasons why software has become more expensive than hardware. [4 marks]
- b) Describe the 2 main types of software. [4 marks]
- c) Explain the difference between POPs and ISPs and describe 3 ways that you can access the internet [8 marks]
- d) Explain the difference between the Internet and the World Wide Web [2 marks]
- e) Give 4 examples of popular social networking sites. [2 marks]

**section B (Answer any three (3) questions from this section)**

**QUESTION 1 [20 marks]**

- a) Mobile telephones are used for accessing the internet. Give two advantages and two disadvantages of using a mobile telephone rather than using a PC to access the internet. **[4 marks]**
- b) A desktop computer is already used in an office which does not have an internet connection.
- Name two items of hardware which could enable the computer to be connected to a network. **[4 marks]**
  - Name one item of hardware which would enable the network to be connected to the internet. **[1 mark]**
- c) A school keeps records of every student including details of their names, addresses, phone numbers and dates of birth. Using this information, define the terms file, field and record. **[3 marks]**
- d) Multi-national companies often use video conferencing rather than face to face meetings.
- Give three advantages of video conferencing. **[3 marks]**
  - Give three disadvantages of video conferencing. **[3 marks]**
- e) Give two reasons why a WLAN would be preferable to a cabled LAN. **[2 marks]**

**QUESTION 2 [20 marks]**

- a) Students collect information from a variety of sources when working on assignments.

Discuss the legal issues that they should consider when using the information.

**[2 marks]**

- b) Many students at the University of Zambia have mobile devices such as smartphones or tablet computers. Some staff believe that using these devices enhances learning, others disagree.

Discuss the **advantages** and **disadvantages** of allowing students to use mobile devices in the university **[6 marks]**

- c) Teachers at the college communicate with staff at other colleges to discuss subject issues. They currently hold group discussions using email. Identify **two** other methods that could be used to hold group discussions.

For each method, give a brief description of how the discussions would be conducted. **[6 marks]**

- d) Draw a table showing 3 examples of audio file formats including their descriptions

**[6 marks]**

**QUESTION 3 [20 marks]**

Below is part of a spreadsheet of candidates' examination grades. A teacher needs to create formulae to analyse these grades. There are 64 grades in the full list, in cells B6 to B69.

	A	B	C	D	E	F	G
1	Results for Centre XX123						
2							
3	Qualification: IGCSE						
4							
5	Cand. No	ICT		Totals			
6	3001	E		A*			% A* - C
7	3002	C		A			% A* - G
8	3008	C		B			
9	3012	D		C			
10	3015	C		D			
11	3017	C		E			
12	3021	A		F			
13	3024	E		G			
14	3025	C		U			
15	3026	E		X			
16	3027	C					
17	3028	D					

- a) Write the most efficient formula that could be entered in cell E6 to display the number of A\* grades for ICT in the full list. The formula must be easy to replicate for the other grades.

[4 marks]

- b) The teacher wants to copy the formula down to E15 without having to re-type any of the cells. Describe how he could achieve this. [2 marks]

- c) The teacher needs to calculate the percentage of students gaining A\* to C grades.

Write the most efficient formula to achieve this. [4 marks]

- d) The teacher wishes to create an appropriate chart or graph to be placed on a separate sheet. It will show the grades and the corresponding total number of students gaining those grades. Describe how the teacher could achieve this. [5 marks]

- e) Computer operating systems have developed since early computers used Command Line Interfaces (CLI). Many computers now use Graphical User Interfaces (GUI), some of which are capable of using touch screen technology.

Compare and contrast CLI and GUI [5 marks]

**QUESTION 4 [20 marks]**

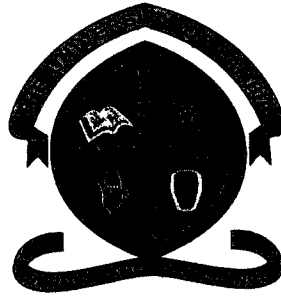
- a) Today computers are considered to be useful tools in getting work done. List four sectors of the society in which computers are now used. **[4 marks]**
- b) To defend your computer, there are various software that protects against various threats. For each of the threats listed below, state the general name given to the types of software that defend against these threats. **[2 marks]**
  - i. Viruses
  - ii. Malware
- c) The manager of a company wants to improve the security of the computer network. She has decided to use authentication techniques so that employees can identify themselves to the system. Name three authentication techniques and describe how each technique would help keep the data more secure. **[6 marks]**
- d) The prolonged use of computers can lead to health and safety problems. **[2 marks]**
- e) List two safety problems that may be caused by the use of computers. **[2 marks]**
- f) A number of people use methods to defraud online bank customers. Name and describe two of these methods. **[4 marks]**

**QUESTION 5 [20 marks]**

A hospital uses computers to monitor the health of patients.

- a) Give advantages of using computers rather than nurses to do this **[4 marks]**
- b) Write advantages and disadvantages of using robots over humans **[4 marks]**
- c) Why should we back up data? **[2 marks]**
- d) Describe the differences between RAM and ROM **[4 marks]**
- e) Describe disadvantages of the desktop computers when compared to laptops **[2 marks]**
- f) What input and output devices will be used in a video conferencing system? **[4 marks]**

**- END -**



# THE UNIVERSITY OF ZAMBIA

## Graduate School of Business

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### SEM1021 – Introduction to Information Management & Technology

### 2021 FINAL EXAMINATION

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Date : Tuesday 26<sup>th</sup> January 2021  
Venue : SPORTS HALL  
Time : 09:00 – 12:00 hrs  
Duration : 3 Hours

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#### Instructions

1. This exam has seven (7) questions.
2. Answer any **five (5)** questions.
3. Write your answers on the answer sheet provided.



**QUESTION 1 [20 marks]**

1. State the difference between general-purpose and special-purpose computers. [2 marks]
2. How does information differ from data? [2 mark]
3. Draw a table showing the order and value of the following metrics: peta, mega, tera, giga. [5 marks]
4. A bit in computing can be physically represented by an area of metal particles on the surface of a disk that are either magnetically charged or not. Give 2 other ways a bit can be physically represented. [4 marks]
5. Give 2 advantages of going digital as well as 2 disadvantages. [4 marks]
6. Give 6 components you would look for when shopping for a computer. [3 marks]

**QUESTION 2 [20 marks]**

1. Give 4 reasons why software has become more expensive than hardware. [4 marks]
2. Describe the 2 main types of software. [4 marks]
3. Explain the difference between POPs and ISPs and describe 3 ways that you can access the internet [8 marks]
4. Explain the difference between the Internet and the World Wide Web [2 marks]
5. Give 4 examples of popular social networking sites. [2 marks]

**QUESTION 3 [20 marks]**

1. Give 2 advantages and 2 disadvantages of cloud computing? [4 marks]
2. List 4 kinds of network control devices. [2 marks]

3. Give, citing examples, 4 kinds of wireless technologies that are used in a home or business setup. **[4 kinds]**
4. What is Digital Media? **[2 marks]**
5. Draw a table showing 3 examples of audio file formats including their descriptions **[6 marks]**
6. Explain the difference between bit-mapped graphics and vector graphics. **[2 marks]**

**QUESTION 4 [20 marks]**

1. Differentiate a DBMS and a database? **[3 marks]**
2. Develop a simple data model for a student database that includes student contact data, student demographic data, student grades data, and student financial data. Determine the data attributes that should be present in each table, and identify the primary key for each table. Develop a complete ER diagram that shows how these tables are related to one another. **[8 marks]**
3. State the 3 kinds of relations types that exist in relation databases. **[3 marks]**
4. What is important for a table to have a primary key? **[3 marks]**
5. How would you define the term "database"? How would you define the term "database management system"? **[3 marks]**

**QUESTION 5 [20 marks]**

1. Briefly describe the differences among transaction processing systems, management information systems, and enterprise resource planning systems **[3 marks]**
2. Identify an advantage and a potential disadvantage of using open source software. **[5 marks]**
3. What is an extranet and how is one used? **[3 marks]**
4. Describe how you might use information systems in a career area of interest to you. **[6 marks]**
5. What is an extranet and how is one used? **[3 marks]**

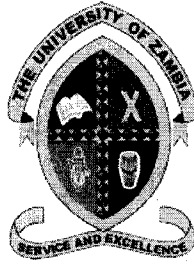
**QUESTION 6 [20 marks]**

1. Identify four types of frequently used software licenses. Which approach does the best job of ensuring a steady, predictable stream of revenue from customers? Which approach is best for a small company with only a few dozen employees? **[8 marks]**
2. What are some of the advantages and disadvantages of employing software as a service (SaaS)? What precautions might you take to minimize the risk of using one? **[5 marks]**
3. Identify three specific smartphone applications that would be of significant help to you in your current or next job. (You can include applications that already exist as well as ones that you wish existed.) Describe specific features of each application and how you would use them. **[7 marks]**

**QUESTION 7 [20 marks]**

1. What is 3D printing? Discuss what you think the future is for 3D printing. **[4 marks]**
2. If cost were not an issue, describe the characteristics of your ideal computer. What would you use it for? Would you choose a tablet, laptop, desktop, or workstation computer? Why? **[6 marks]**
3. Briefly discuss the differences between the star, bus, peer-to-peer, and mesh network topologies **[6 marks]**
7. For your chosen career field, describe how you might use or be involved with e-commerce. If you have not chosen a career yet, answer this question for someone in marketing, finance, or human resources. **[4 marks]**

**- END -**



# THE UNIVERSITY OF ZAMBIA

## Graduate School of Business

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### SEM1021 – Introduction to Information Management & Technology

### 2021 SUPPLEMENTARY FINAL EXAM

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Date : Wednesday ~~7~~<sup>4</sup>th April 2021  
Venue : Sports Hall  
Time : 09:00 – 12:00 hrs.  
Duration : 3 Hours

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#### Instructions

1. This exam has six (6) questions.
2. Answer any **five (5)** questions.
3. Write your answers on the answer sheet provided.

**QUESTION 1 [20 marks]**

1. State the difference between general-purpose and special-purpose computers. **[2 marks]**
2. How does information differ from data? **[2 mark]**
3. Draw a table showing the order and value of the following metrics: peta, mega, tera, giga. **[5 marks]**
4. A bit in computing can be physically represented by an area of metal particles on the surface of a disk that are either magnetically charged or not. Give 2 other ways a bit can be physically represented. **[4 marks]**
5. Give 2 advantages of going digital as well as 2 disadvantages. **[4 marks]**
6. Give 6 components you would look for when shopping for a computer. **[3 marks]**

**QUESTION 2 [20 marks]**

1. Give 4 reasons why software has become more expensive than hardware. **[4 marks]**
2. Describe the 2 main types of software. **[4 marks]**
3. Explain the difference between POPs and ISPs and describe 3 ways that you can access the internet **[8 marks]**
4. Explain the difference between the Internet and the World Wide Web **[2 marks]**
5. Give 4 examples of popular social networking sites. **[2 marks]**

**QUESTION 3 [20 marks]**

1. Give 2 advantages and 2 disadvantages of cloud computing? **[4 marks]**
2. List 4 kinds of network control devices. **[2 marks]**
3. Give, citing examples, 4 kinds of wireless technologies that are used in a home or business setup. **[4 kinds]**

4. What is Digital Media? **[2 marks]**
5. Draw a table showing 3 examples of audio file formats including their descriptions **[6 marks]**
6. Explain the difference between bit-mapped graphics and vector graphics. **[2 marks]**

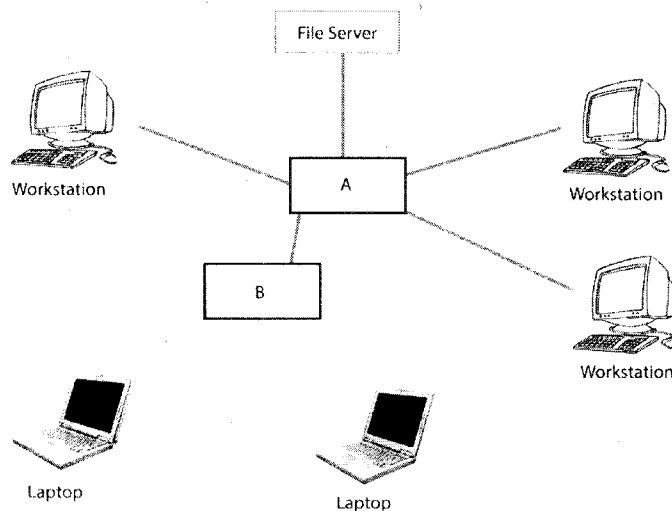
**QUESTION 4 [20 marks]**

1. Differentiate a DBMS and a database? **[3 marks]**
2. Draw a hierarchy of the following giving examples of each: characters, database, records, fields, files? **[6 marks]**
3. State the 3 kinds of relations types that exist in relation databases. **[3 marks]**
4. Deborah has been advised to make a backup of the documents folder that is on her PC. Give two reasons for this advice **[2 marks]**
5. What is the difference between a protocol and a standard? Which of these are a protocol and which are a standard: TCP/IP, Ethernet, token ring **[3 marks]**
6. ICT can be used in many ways to enhance students' learning. Using the internet for research is one way in which students' learning is enhanced. Using examples, describe other ways in which ICT can be used to enhance students' learning. **[3 marks]**

**QUESTION 5 [20 marks]**

The diagram shows a computer network in a small office

1. Name this type of network



2. Identify the device labelled 'A' in the diagram. [2 marks]
3. State the type of software that must be installed on the server to allow the network to function. [2 marks]
4. State **FOUR (4)** the hardware that must be present on each workstation to allow communication with the server [4 marks]
5. The laptops use wi-fi to connect to the network. Identify the device labelled 'B' in the diagram. [2 marks]
6. Give two advantages of using a wired connection rather than a wireless connection.
7. The network enables people to work together on a project. Describe two ways in which this can be done. [4 marks]
8. Some wireless devices use Bluetooth instead of wi-fi. Give two disadvantages of using Bluetooth rather than wi-fi to connect devices. [2 marks]
9. Regina would like to watch videos on her laptop using an online service. She can choose to download or stream the videos. Discuss the advantages and disadvantages of downloading rather than streaming videos. [4 marks]



**QUESTION 6 [20 marks]**

7. Shores is a supermarket chain. Each supermarket has several Electronic Point of Sale (EPOS) terminals.

a) Most products have a barcode on the packaging.

i. State the name of the device used to input data automatically from the barcode.

**[2 marks]**

ii. Explain two benefits to the supermarket of using the barcode. **[4 marks]**

iii. Some products, such as loose items of fruit, do not have barcodes. The operator uses a screen to select an image of the product and also input the quantity bought. State the type of screen used. **[2 marks]**

b) Some of the EPOS terminals are self-service. At these terminals customers input the barcode data themselves. Explain one benefit to the supermarket of having self-service terminals. **[3 marks]**

c) The EPOS terminals are connected to the central server of Shores. The data collected from sales is used as part of the stock control system. Complete the table, with the numbers 2–6, to give the correct order of steps in the stock control system. **[3 marks]**

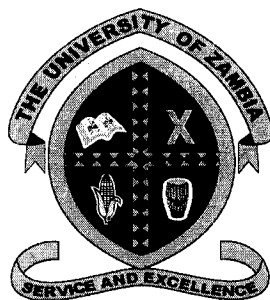
Steps	Order
Barcode input	1
Current stock calculated	
Item identified	
Current stock compared to reorder level	
One item deducted from current stock	
Information sent to database	
Order placed for new stock	7

d) Shores operates a loyalty card scheme. Customers join the scheme by registering their personal information with Shores. Shores has a legal requirement to ensure that stored personal information is accurate and up-to-date.

i. Give three methods Shores can use to ensure that the personal information it stores is accurate and up-to-date **[3 marks]**

ii. State three other legal requirements that Shores must follow when storing the personal information of customers. **[3 marks]**

**- END -**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE**

**JULY 2018 COHORT**

**SESSIONAL EXAMINATION**

**DATE: 13<sup>TH</sup> JUNE, 2019**

**SEM 1031: FINANCIAL ACCOUNTING**

**EXAM TIME: 14:00 HOURS**

**DURATION: THREE (3) HOURS**

**VENUE: DRGS LECTURE ROOM III**

**INSTRUCTIONS:**

1. Read Each and Every Question CAREFULLY and UNDERSTAND the Information Given.
2. The Paper has a Total Number of Five (5) Questions.
3. Answer a Total of FOUR (4) Questions. Question ONE (1) is Compulsory.
4. The Paper Carries a Total of 100 Marks
5. Marks Allocation Indicates the Depth of the Answer Expected.

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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

### QUESTION ONE - *COMPULSORY*

M'hango makes agricultural machinery, for sale to major suppliers in the industry. The following figures are extracted from his trial balance as at 31 December 2018.

	<i>K'000</i>
Sales	22,000
Purchases of parts	6,500
Carriage inwards	400
Carriage outwards	1,000
Returns inwards	800
Returns outwards	600
Manufacturing labour	2,000
Factory supervisory labour	750
Office salaries	1,080
Other costs	
Heating and lighting	1,650
Rent and insurance	1,220
Factory machinery at cost	10,000
Accumulated depreciation of factory machinery	4,000
Delivery vehicles at cost	3,000
Accumulated depreciation of vehicles	1,000
Office machinery at cost	1,200
Accumulated depreciation of office machinery	800
Opening inventories	
Raw materials	1,750
Work in progress	4,250
Finished goods	1,150
Capital	1,580

At the end of the year, the following information is also available:

(a)

	<i>K'000</i>
Closing inventories	
Raw materials	1,470
Work in progress	3,920
Finished goods	1,380

(b)

	K'000
Heat and light accrued	150
Rent prepaid	220

(c) Seventy-five per cent of heat, light, rent and insurance is considered to be applicable to the manufacturing processes.

(d) Depreciation is to be calculated as follows:

- factory machinery, 10 per cent, straight line;
- delivery vehicles, 20 per cent, reducing balance;
- office machinery, 25 per cent, reducing balance.

(e) Delivery vehicles are used entirely for the delivery of finished goods.

(f) Office machinery is used 25 per cent for the operation of factory information systems.

### Required

A. Prepare the manufacturing income statement for the ended 31 December 2018

(20 Marks)

B. Prepare the manufacturing statement of financial position as at 31 December 2018

(5 Marks)

### QUESTION TWO

During the 2017 mid-year study break, Lovemore and Lushomo agreed to go for a drink at East Park Mall to refresh after hours of preparations. On their way back to campus, Lovemore decided to play lotto at one of vending stands. Lushomo picked the numbers. A week later Lovemore won the jackpot. He acknowledged Lushomo's contribution and further extended a share of his money. They opened a wholesale in Kalingalinga in partnership sharing profits and losses in the ratio two to three.

Below is their trial balance as at 31 March 2018.

## Lovemore and Lushomo

### Trial Balance as at 31 March 2017

	<i>K'000</i>	<i>K'000</i>
Sales revenue		200,500
Purchases	50,000	
Returns inwards	5,000	
Returns outwards		6,100
Carriage inwards	2,000	
Carriage outwards	3,400	
Inventory at 1 April 2017	10,300	
Discounts	8,200	5,000
Trade receivables	100,000	
Payables		80,000
Bad debts	1,500	
Provision for bad debts		5,000
General expenses	4,300	
Electricity bill	6,000	
Staff Salaries	40,000	
Rent	12,000	
Office equipment (cost K70 million)	56,000	
Fixtures and fittings at cost	40,000	
Provision for depreciation as at 1 April 2017		
- Fixtures and fittings		4,000
Cash at bank	10,000	
Drawings:		
Lovemore	11,000	
Lushomo	13,000	
Capital:		
Lovemore		35,000
Lushomo		45,000
Current accounts:		
Lovemore	4,500	
Lushomo	3,400	
	<b><u>380,600</u></b>	<b><u>380,600</u></b>

### Notes:

- (i) Closing inventory at 31 March 2018 was valued at K30,000,000.
- (ii) Staff salaries owing at the end of the year was K5,000,000.
- (iii) Electricity bill amount shown in the trial balance above was paid for 16 months to 31 July 2018.
- (iv) Make an allowance for receivables of 2% on receivables.
- (v) Depreciation for the year is to be made as follows:

- Office equipment at 20% using reducing balance method.
  - Fixtures and fittings at 5% on cost.
- (vi) Interest on capital is charged at the rate of 5% on capital.
- (vii) Interest on drawing for the year is to be charged as follows;  
 Lovemore K550,000  
 Lushomo K650,000.
- (viii) Partners salaries: lovemore K300, 000, Lushomo K400, 000

### Required

- A. Prepare Lovemore and Lushomo partnership statement of profit or loss and appropriation account for the year ended 31 March 2018. **(16 Marks)**
- B. Prepare the partners current accounts for the year ended 31 March 2018. **(9 Marks)**

### QUESTION THREE

On 4 December 2018, Mr Bwalya Hamukale received his monthly bank statement for November 2018. The statement showed the following.

#### MAKWEBO BANK

#### Bwalya Hamukale: Statement of Account

Date	Particulars	Debits	Credits	Balance
20X8		K'000	K'000	K'000
Nov 1	Balance			1,862
Nov 5	417864	243		1,619
Nov 5	Dividend		26	1,645
Nov 5	Bank Giro Credit		212	1,857
Nov 8	417866	174		1,683
Nov 10	417867	17		1,666
Nov 11	Sundry Credit		185	1,851
Nov 14	Standing Order	32		1,819
Nov 20	417865	307		1,512
Nov 20	Bank Giro Credit		118	1,630
Nov 21	417868	95		1,535
Nov 21	417870	161		1,374
Nov 24	Bank charges	18		1,356
Nov 27	Bank Giro Credit		47	1,403
Nov 28	Direct Debit	88		1,315
Nov 29	417873	12		1,303
Nov 29	Bank Giro Credit		279	1,582
Nov 30	417871	25		1,557

His cash book for the corresponding period showed:

<b>CASH BOOK</b>				
<b>20X8</b>	<b>K'000</b>	<b>20X8</b>	<b>Cheque no</b>	<b>K'000</b>
Dec 1. Balance b/d	1,862	Dec 1. Electricity	864	243
Dec 4. J Shanga	212	Dec 2. P Silungwe	865	307
Dec 9. M Liempe	185	Dec 5. D Masopela	866	174
Dec 19. G Hunsungule	118	Dec 6. A Yohane	867	17
Dec 26. M Mwewa	47	Dec 10. T Luyanga	868	95
Dec 27. J Sibusiso	279	Dec 14. B Chikopa	869	71
Dec 29. V Tembo	98	Dec 16. Rent	870	161
Dec 30. K Sikasanzi	134	Dec 20. P Silungwe	871	25
		Dec 21. L Phiri	872	37
		Dec 22. W Simoonga	873	12
		Dec 31. Balance c/d		<u>1,793</u>
	<u>2,935</u>			<u>2,935</u>

### Required

- Show a revised cash book balance as at 30 November 2018 (12 Marks)
- Using a bank reconciliation statement reconcile the closing balances in the bank statement and the cash book (13 Marks)

### QUESTION FOUR

Record the following transactions in the Three Column Cash Book of Cindy Agencies and balance the same. (25 Marks)

2017 July

- Cash in hand K40,000
- He opened a current account with a bank K36,000
- Purchased goods for cash K600 and by cheque K1,500
- Sold goods for cash K800
- Sold goods to Mohan and received a cheque for the same K1200
- Deposited Mohan's cheque in the bank
- Purchased stationery by cheque K200
- Cash sales K2,000
- Issued cheque for cash purchase of furniture to Woodland K2,500
- Deposited cash in the bank K3,000
- Shera paid directly into bank account K1,000
- Received from Madhu K1,000 cash and K1,400 cheque allowed him discount of K50
- Paid to Ray K500 in cash and a cheque of K2,500 Received discount K40
- Received a cheque from Joseph K1,500 5% discount
- Withdrew cash from the bank for office use K1,500
- Cindy paid her son's college fees in cash K400

17. Paid Subhan & Co. by cheque K1,000 2 % discount
18. Joseph's cheque returned dishonoured K1,500
19. Received a cheque from Gagan. It was endorsed to Ram K700
20. Withdrew from bank for personal use K1,600
21. Issued cheque for purchase of machinery K40,000
22. Paid sundry expenses in cash K200
23. Paid rent by cheque K600
24. Deposited cash in excess of K500.

#### **QUESTION FIVE**

Discuss the following accounting concepts;

- |                              |           |
|------------------------------|-----------|
| A. The Going Concern Concept | (4 Marks) |
| B. The Accruals Concept      | (4 Marks) |
| C. Prudence Concept          | (4 Marks) |
| D. Consistency Concept       | (4 Marks) |
| E. Materiality Concept       | (4 Marks) |
| F. The Realisation Concept   | (5 Marks) |

***END OF EXAMINATION***



THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
2021 ACADEMIC YEAR  
FEBRUARY 2021 COHORT  
END OF YEAR FINAL EXAMINATION

**SEM1040:** BUSINESS MATHEMATICS AND STATISTICS

TIME: THREE (3) HOURS

INSTRUCTIONS: ANSWER **FOUR QUESTIONS** IN TOTAL. SECTION A IS COMPULSORY, AND CHOOSE ANY TWO QUESTIONS FROM SECTION B. **SHOW ALL YOUR WORK TO EARN MAXIMUM POINTS.**

NOTE: **ALL QUESTIONS IN THIS PAPER CARRY EQUAL MARKS**

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**SECTION A (COMPULSORY)**

**Question One**

You are given the following data

$$N = 50, \sum X = 917, \sum X^2 = 18501, 25th \text{ percentile} = 16.3, 50th \text{ percentile} = 19,$$

$$75th \text{ percentile} = 22.8, \text{Maximum} = 27, \text{Minimum} = 2, \text{Most common observation} = 17,$$

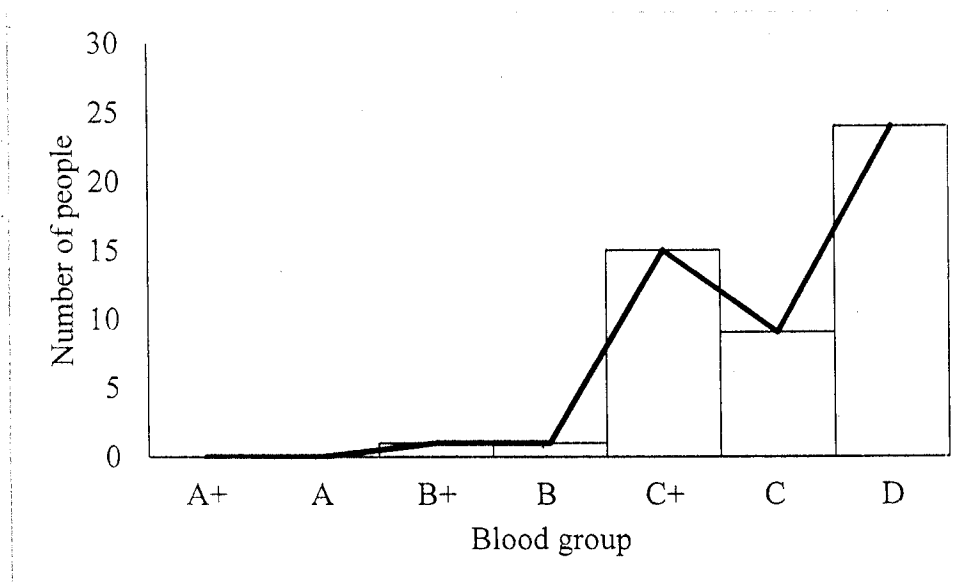
$$95\% \text{ CI lower bound} = 16.7, \quad 95\% \text{ CI upper bound} = 20$$

Use the data above to accomplish the following tasks:

- a) State the total number of observations
- b) Calculate the
  - i. Mean
  - ii. Median
  - iii. Mode
- c) Evaluate the
  - i. Range

- ii. Standard deviation
- iii. Interquartile range
- d) Specify the 95 percent confidence interval

The University of Zambia Clinic recorded the blood group for the first 50 clients that visited the clinic in January 2020. The distribution of the 7 types of blood groups recorded are shown on the histogram below.



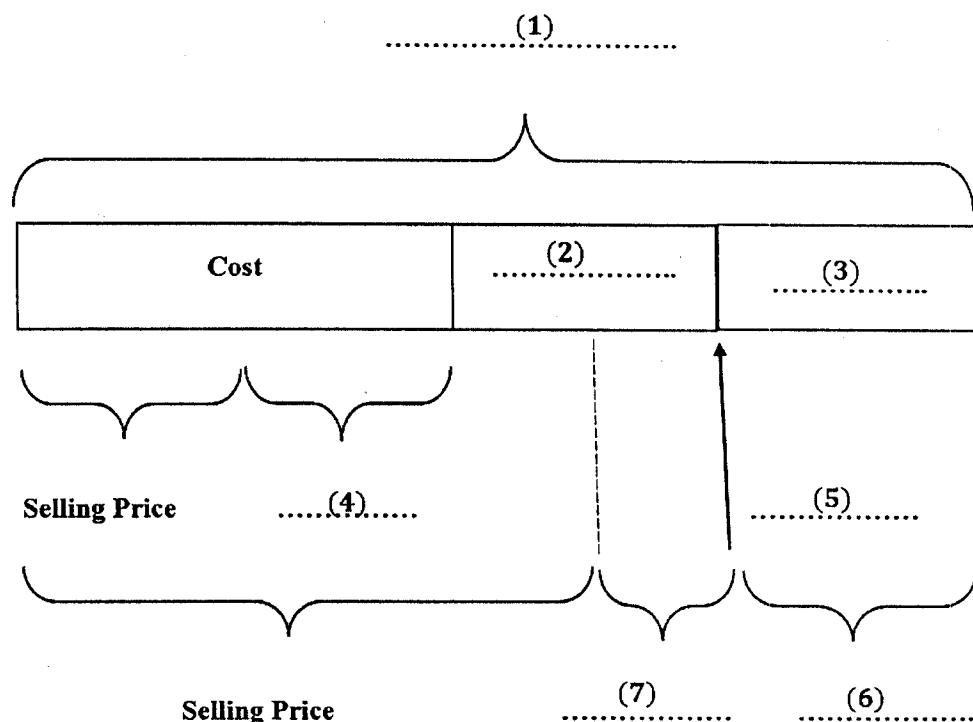
- e) Based on the histogram answer the following
  - i) Briefly describe the shape of the distribution of the blood groups
  - ii) Based on your response in i) what is the relationship of the mean, median and mode in this case
  - iii) What is the modal blood group?
  - iv) For this data, would you use the mean or the median as a measure of central tendency? Explain your answer.
  - v) For this data was it appropriate to use the histogram? If yes justify and if no justify and suggest an appropriate graph that you would have used.

## Question Two

a) Define the following

- i) Break-even point
- ii) Reduced net profit
- iii) Operating loss
- iv) Absolute loss or gross loss

b) Use your definitions in a) to complete the diagram below from (1), (2) up to (7).



c) List 5 limitations of a moving average.

d) Outline the 5 steps required to carryout hypothesis testing.

## SECTION B (CHOOSE ANY TWO QUESTIONS)

### Question Three

(A) Define and brief explain the use of the following:

- i) Mark up
- ii) Mark down
- iii) Lagrangian multiplier  $\lambda$
- iv) Compound interest
- v) Current yield

(B) The investment pyramid is very similar to the food pyramid. At the base of the pyramid are low-risk investments with lower returns. These investments should make up a foundation percentage of your portfolio. Demonstrate your understanding of the investment pyramid by listing all the low-risk investments at the base of the investment pyramid.

(C) Suppose an individual borrows money at 10% for 54 days. Find the principal amount that results in interest of k780.

(D) Karen has an opportunity to invest in a new high-speed computer that costs K50,000. Karen expects that the computer will generate cash flows (from cost savings) of K25,000, K20,000, and K30,000 in years one, two, and three respectively. Thereafter, the computer will be worthless and thus no additional cash flows will be generated. Karen has determined that the appropriate discount rate is 7% for the computer investment. Should Karen invest in the new high-speed computer?

### Question Four

- a. Briefly explain the measures of variability.
- b. Briefly explain the concept of correlation
- c. Clearly specify the two types of each of the following: Quantitative and qualitative data
- d. Monthly sales volume of tomatoes during a past year can be described to have been negatively skewed due to unfavourable market conditions that were prevailing at SOWETO market. As a student of GSB what branch of statistics would help you reach at such a conclusion? Define this branch of statistics that you have outlined.

- e. After learning about investments, a GSB student begins developing interest in his entrepreneurial dream. He sets up a small printing and photocopying shop near his boarding house where he works for 12 hours as a trial site. His interest is to see how many customers are likely to come at his shop at each of those 12 hours. The following data presents the number of customers during each hour in a period of three days

0, 3, 6, 0, 5, 2, 4, 1, 0, 6, 4, 2

The GSB student treated this data as ungrouped data and determined the following:

- i. Mean was found to be 2.75
- ii. Median was 6.5
- iii. Mode was 0.

As a fellow GSB student kindly provide a concise interpretation of the implication of these findings on the distribution of the customers' visits each hour at this shop.

f) Define the following

- i) Smoothing constant
- ii) Random or irregular component of a series
- iii) Base period.

### Question Five

- a) A student wanted to compare which forecasting method is the best and as such computed the Mean Squared for the following methods.

Type of method	Mean Squared error
Naïve method	16.27
Average of past values method	9.35
Moving average with $k=3$	10.22
Exponential smoothing with $\alpha = 0.2$	8.98
Exponential smoothing with $\alpha = 0.3$	8.10

Which of these methods do you prefer and why?

- b) Define the error term
- c) A small hardware in Mtendere East tried to expand its business by spending on advertising. The following sales were recorded for advertising expenditure in the first 6 days.

Day ( $t$ )	1	2	3	4	5	6
Sales ( $Y_t$ )	18	13	16	11	17	14

The shop owner wants to compare the forecasted sales to the actual sales values. In order to do this Gezile uses the Moving average of order 3 and the exponential smoothing with  $\alpha = 0.2$ . the formula for moving average is as follows:

$$F_{t+1} = \frac{Y_t + Y_{t-1} + Y_{t-2}}{3}$$

While the formula for exponential smoothing is:

$$F_{t+1} = \alpha Y_t + (1 - \alpha)F_t$$

With  $F_1 = Y_1 = 18$  and  $F_2 = Y_1 = 18$ .

Using the above data to carry out the following tasks.

- (i) Develop a time series plot for these data.
- (ii) Describe the pattern that you can see in the time series plot you have plotted in (i)?
- (iii) Using the formula stated above find the forecasts for this time series using a three-day moving average method and a forecast for day 7.
- (iv) Using the formula stated above find the forecasts for this time series using an exponential smoothing method and a forecast for day 7.
- (v) Plot your forecasts in (iii) and (iv) on a time series plot you developed in (i)
- (vi) Describe the pattern of your new plots compared to the original series

### Question Six

- a) Consider the table below with information.

Food Type	2000		2004		2008	
	Price	Quantity	Price	Quantity	Price	Quantity
A	35	500	37.5	625	40	750
B	37	310	41	455	45	600
C	40	250	45	270	50	290

Evaluate the two composite indices for the year 2008 using 2000 as the base year:

- i) Paasche quantity index
- ii) Laspeyres price index.
- b) Distinguish between a stock and a bond.
- c) State the components of time series

- d) Most companies state the exact cash discount on the invoice, and the ordinary dating method of cash discount is expressed as

2/10, n/30 or 2/10, net 30
----------------------------

As a student of business mathematics construe the above fully.

### Question Seven

Given the following table

Number of Covid-19 cases	3	7	5	11	14
Number of unvaccinated individuals	1	2	3	4	5

The slope coefficient was 2.6 and the intercept was found to be 0.20. Explained variations were 67.6, unexplained variations were 12.4 while total variations were 80.

Using the above data carry out the following tasks.

- Develop a scatter diagram for these data.
- Describe the relationship between the number of unvaccinated individuals and number of covid-19 cases based on your scatter diagram you have plotted in (i)?
- Plot the best straight line to fit this data.
- Specify an estimated equation of number of unvaccinated individuals and number of Covid-19 cases based on the statistics given above.
- Interpret your estimated regression equation of number of unvaccinated individuals and number of Covid-19 cases you have specified in part (iv).
- Use the estimated regression equation of the number of unvaccinated individuals on number of Covid-19 cases you have specified in part (iv) to find the fitted values (estimated values) of number of Covid-19 cases.
- Find the  $r^2$  and interpret it.
- Contrast the coefficient of determination from the coefficient of correlation.

### Question Eight

A) Define the following

- i) Dependent variable
- ii) Coefficient of determination
- iii) Mean Squared error
- iv) Additive model
- v) An index
- vi) Sampling
- vii) Simple random sampling
- viii) Point estimates
- ix) A parameter
- x) Stratified sampling:

B) List 5 reasons why a stochastic term occurs



## SELECTED FORMULAE

$$\text{a) } \bar{x} = \frac{\sum_l^n x_l}{n}$$

$$\text{b) } \mu = \frac{\sum_l^n x_l}{N}$$

$$\text{c) } i = \left(\frac{p}{100}\right)^n$$

$$\text{d) } s = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

$$\text{e) } S = \sqrt{\frac{1}{n-1} \left[ \sum x_i^2 - \frac{(\sum x_i)^2}{n} \right]}$$

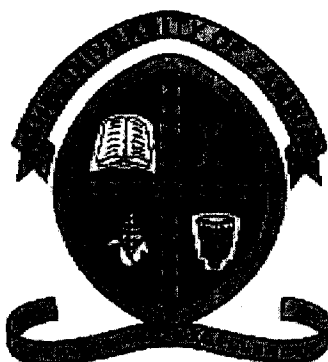
$$\text{f) } \textit{Coef sk} = \frac{\bar{x} - M_0}{\sigma}$$

$$\text{g) } \textit{Cov}(x, y) = \frac{\sum (x - \bar{x})(y - \bar{y})}{n}$$

$$\text{h) } \bar{x} = \frac{\sum fm}{\sum f}$$

$$\text{i) } PPI = \frac{\sum P_n Q_n}{\sum P_o Q_n} \times 100$$

$$\text{j) } LPI = \frac{\sum P_n Q_o}{\sum P_o Q_o} \times 100$$



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**2020 ACADEMIC YEAR – FEBRAURY COHORT**

**END OF YEAR FINAL EXAMINATION**

**DATE: FRIDAY 5<sup>TH</sup> FEBRUARY, 2021**

**SEM1040: BUSINESS MATHEMATICS AND STATISTICS**

**TIME : 09:00 HOURS**

**DURATION : THREE (3) HOURS**

**VENUE : SPORTS HALL**

### **INSTRUCTIONS:**

1. **Section A** Is Compulsory
  2. Choose Any Two Questions from **Section B** in any order of your choice.
  3. **Please Note that Question Nineteen is a Bonus Question**
  4. Clearly show your working to earn maximum points
- 

**“DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO”**

## Section A – Compulsory

### Question One

*State whether the following statements are true, false or uncertain.*

1. A distribution is skewed to the right if a greater proportion of the measurements lie to the left of the peak value.
2. Measures of location refer to numbers that indicate the spread of observations.
3. If the random variable  $X$  is defined to be the number of trials on which the  $r$ -th success occurs, then  $X$  follows the geometric distribution.
4. The probability of an event is always positive.
5. The average number of days an economics student will be absent for a statistics class is 5 days per month. The probability that a student will be absent for 4 days in a month is 0.1655
6. When a fair coin is tossed 3 times, the probability of getting two heads is  $\frac{1}{4}$
7. If  $X$  denotes a discrete random variable, then  $P(X=C) = 0$  for every value of  $C$ .
8. A parameter is a numerical descriptive measure calculated from the sample
9. The Cumulative Distribution Function is a probability measure that gives probabilities of the possible values for a discrete random variable.
10. Statistical inference is the process of making an estimate, prediction or a decision about a population based on population data.
11. When constructing the confidence interval of the difference between the two population means, if the samples are small and their population variances are unknown and assumed to be unequal, we use  $n_1 + n_2 - 2$  as the degrees of freedom to obtain the critical  $t$ -value.
12. The sampling error increases as we increase the sampling size.
13. The amount of coffee consumed by an individual in a day is an example of a discrete random variable.
14. The median of the values 3.4, 4.7, 1.9, 7.6 and 6.5 is 1.9
15. If  $P(A \cup B) = P(A) + P(B)$ , then  $A$  and  $B$  are mutually exclusive events.
16. A random variable is a numerical description of the outcome of an experiment and it can be discrete or continuous
17. A biologist inoculates several mice, one at a time with a disease germ until he gets 3 that contract the disease. If the probability of a mice to contract the disease after inoculation is  $\frac{1}{6}$ . The probability that the experiment will require eight mice is 0.0391

18. The Binomial distribution reduces to a Bernoulli distribution when  $n = 1$
19. The standard error is always a non-negative value.
20. If  $X$  is a random variable that follows a poisson distribution, then its mean and variance are equal.
21. A box plot is a graphical representation of a 5-number summary consisting of the smallest observation, the first quartile, the median, the third quartile and the largest observation.
22. If the sample size is 40 and the sample mean is 15, then the sum of all observations in the sample is 600.

### Question Two

*The following are multiple-choice questions with four answer choices. Read each question and answer choice carefully and choose the **ONE** best answer*

1. When is the t-distribution used to obtain the critical value in developing a confidence interval estimate for the population mean?
  - a. When the sample standard deviation is unknown and the sample size is small
  - b. When the population standard deviation is known and the sample size is small
  - c. When the population variance is unknown and the sample size is small
  - d. When the population standard deviation is known and the sample size is large
2. Hotspur Way Liquors takes a random sample of 20 customers and records how long each occupied a table. They found a sample mean of 1.2 hours and a sample standard deviation of 0.3 hours. Find the 95% confidence interval for the mean
  - a.  $1.2 \pm 124$
  - b.  $1.2 \pm 118$
  - c.  $1.2 \pm 0.14$
  - d.  $1.2 \pm 0.16$
3. A random sample of 340 people in Lusaka showed that 66 watched ZNBC. What is the upper limit for the 95 percent confidence interval estimate for the proportion of people in Lusaka that watch ZNBC?
  - a. 1.96
  - b. 0.2366
  - c. 0.2361
  - d. 0.2298

4. UTH plans to survey a random sample of its customers with an objective of estimating the mean kwachas spent on pharmaceutical products during the past two months. They have assumed that the population standard deviation is known to be K20.5. What would be the required sample size to estimate the population mean with 95 percent confidence and a margin of error of  $\pm$  K2.00?
- 20
  - 231
  - 404
  - 40
5. If a statistician wishes to reduce the margin of error associated with a confidence interval estimate for a population mean, he/she can:
- Decrease the sample size
  - Use the t-distribution
  - Increase the sample size
  - Increase the confidence level
6. The central limit theorem states that \_\_\_\_\_?
- If the sample size decreases, then the sampling distribution much approach an exponential distribution
  - If the sample size increases, then the sampling distribution approaches normal distribution provided the sample is drawn from the normally distributed population
  - If the sample size increases, then the sampling distribution approaches the normal distribution regardless of the population from which the sample is drawn
  - if the sample size decreases then the sample distribution must approach normal distribution
7. What is the margin of error?
- The critical value times the standard error of the sampling distribution
  - The difference between the point estimate and the parameter
  - Both A and D
  - The largest possible sampling error at a specified level of confidence
8. The area under a standard normal curve equals \_\_\_\_\_?
- Undefined
  - 0
  - 1
  - Infinity

9. Which of the following can be considered true when developing a confidence interval estimate for the population mean?
- The confidence interval developed from a smaller sample size will have a larger margin of error than one obtained using a larger sample size
  - If the population standard deviation is unknown and the sample size is small, the appropriate critical value should be obtained from the t-distribution
  - The larger the sample standard deviation, the wider will be the interval estimate
  - All of the above
10. Ceteris paribus, which of the following would increase the width of a confidence interval?
- A decrease in the standard deviation
  - Increasing the sample size
  - Decreasing the confidence level
  - Decreasing the sample size
11. In which of the following types of sampling methods, the information is carried out under the opinion of an expert?
- Convenience sampling
  - Cluster sampling
  - Systematic sampling
  - Judgment sampling
12. Which of the following statements applies to a point estimate?
- The point estimate is a parameter
  - The point estimate will tend to be accurate if the sample size exceeds 30 for non-normal populations
  - The point estimate is needed to determine the required sample size when estimating the population mean
  - The point estimate is subject to sampling error and will almost always be different than the population value
13. Which of the following shows the general format for a confidence interval?
- Point estimate  $\pm$  z (Standard deviation)
  - Point estimate  $\pm$  (critical value) (standard deviation)
  - Margin of error  $\pm$  (confidence coefficient) (standard error)
  - Point estimate  $\pm$  (critical value) (standard error)

14. What do we call the difference between the parameter to be estimated and the expectation of an estimator?
- Error of margin
  - Difference
  - Contradiction
  - Bias
15. When does the sampling error occur?
- When a non-statistical sample is used
  - When a confidence interval is used to estimate a population value rather than a point estimate
  - When a random sample is used rather than a convenience sample
  - When the statistic computed from the sample is not equal to the parameter for the population
16. The University of Zambia collected a sample of 40 visitors to estimate the mean number of visits per day. They found that the variance was 36 visits. Using a 95% confidence level, what is their margin of error?
- $\pm 11.1565$  visits
  - $\pm 8.3$  visits
  - $\pm 1.3$  visits
  - $\pm 1.8594$  visits
17. Which of the following statements is true about the t-distribution?
- The t-distribution is more spread out than the standard normal distribution
  - The exact shape of the t-distribution depends on the number of degrees of freedom
  - It is symmetrical about the mean
  - All of the above
18. Which of the following is not true about stratified random sampling?
- It involves a random selection process from identified subgroups
  - Disproportional stratified random sampling is especially helpful for getting large enough subgroup samples when subgroup comparisons are to be done
  - Proportional stratified random sampling yields a representative sample
  - Proportions of groups in the sample must always match their population proportions

19. Which of the following sampling techniques is an equal probability selection method (i.e. EPSEM) in which every individual in the population has an equal chance of being selected?
- a. Simple random sampling
  - b. Systematic sampling
  - c. Proportional stratified sampling
  - d. All of the above are EPSEM
20. The General Manager at Oasis Cafeteria wants to determine how many students use the cafeteria on a regular basis. What type of sampling method would she use if he chose to randomly select 20 students in the cafeteria during each of the three lunch periods on Monday?
- a. Convenience sampling
  - b. Stratified random sampling
  - c. Simple random sampling
  - d. Quota sampling
21. Which of the following techniques yields a simple random sample?
- a. Choosing volunteers from an introductory psychology class to participate
  - b. Numbering all the elements of a sampling frame and then using a random number table to pick cases from the table
  - c. Listing the individuals by ethnic group and choosing a proportion from within each ethnic group at random
  - d. Randomly selecting schools, and then sampling everyone within the school
22. In which of the following sampling techniques does the researcher ask the research participants to identify other potential research participants?
- a. Quota sampling
  - b. Snowball sampling
  - c. Cluster sampling
  - d. Purposive sampling
23. Which of the following sampling technique would generally require the largest sample size?
- a. Simple random sampling
  - b. Cluster sampling
  - c. Systematic sampling
  - d. Proportional stratified sampling



24. The sampling type that involves selecting a convenience sample from a population with a specific set of characteristics for your research study is called \_\_\_\_.
- Convenience sampling
  - Purposive sampling
  - Quota sampling
  - Snowball sampling
25. The University of Zambia Chief Librarian wants to determine how many students use the library on a regular basis. What type of sampling method would she use if she chose to use a random number generator to randomly select 50 students from the school's attendance roster?
- Convenience Sample
  - Simple Random Sample
  - Stratified Random Sample
  - Systematic sampling
26. Which of the following is not an example of a non-probability sampling technique?
- Purposive sampling
  - Cluster sampling
  - Snowball sampling
  - Quota sampling
27. By using systematic sampling, what is the sample size a researcher would select from the population of 5000 people, given that the sample interval is 10?
- 51
  - 500
  - 1000
  - 2,500
28. Which of the following is a non-probability sampling technique?
- Snowball sampling
  - Convenience sampling
  - Quota sampling
  - All of the above

## Section B - Choose Any Two Questions

### Question Three

- a. A cheque of K1581.00 was received on 12<sup>th</sup> June in full payment of an invoice dated 6<sup>th</sup> June, with terms 7/10, n/30. What was the net amount of the invoice? [1 mark]
- b. Suppose you can purchase an item from one of the three companies; Company A for K3,200 with a trade discount of 30%, Company B for K2,900 with a trade discount of 20/10, or Company C for K3,450 with a trade discount of 20/15/5. Which company has the
- Highest discount?
  - Lowest net price?
- c. Fill the missing blanks in the table below [2 marks]

Product	List Price	Trade Discount(%)	Net Price	Single Cash Discount (%)	Net Amount Due
A	-	30	840	-	823.2
B	-	30/10	441	8%	-
C	-	25/15/5	484.5	-	465.12

- d. The Graduate School of Business (GSB) received an invoice dated 15<sup>th</sup> April from "Zibazako" Importers with terms 5/15, n/60 R.O.G for: 50 Tennis rackets at \$130.65 each; 500 Tennis Balls at \$10.50 each and 130 wristbands for \$20.75 each. All items are subject to trade discount of 30% regardless of the payment method.
- If the shipment was received on May 24, what is the last day for payment to get a discount?
  - What is the amount due if the invoice was paid in full on June 05?
  - Ignore parts (i) and (ii). If a partial payment is made on the last day of the discount period to reduce the invoice balance to \$5,000, what is the amount of the payment?

### Question Four

- Find the amount of discount, if the rate of discount is 11% and the list price is K213.99.
- Find the list price, if the rate of discount is 7% and the amount of discount is K29.99.
- Find the rate of discount, if the discount is K39.98 and the list price is K429.99

- d. The Agrarian Bike Shop buys a bike for K139.99 less a trade discount of 13%. What amount of discount does the bike shop obtain? What is the Net Price Factor (NPF) or Net Factor? What is the net price?
- e. The Agrarian Bike Shop buys a bike helmet for K49.99 less a trade discount of 11%, 5%, 3%. What is the net price of the bike helmet? What is the single equivalent rate of discount?

### Question Five

- a. Unza borrows 30 million for 9 months at an interest rate of 8%, find
  - i. Interest due on the loan
  - ii. The maturity value at the end of 9 months
- b. An investment at FNB pays 7% interest per year compounded monthly while an investment at ZANACO pays 7% interest per year compounded semi - annually, assuming you have K5000 to deposit in any bank for your investment, find
  - i. The compound amount after 6 years for each bank
  - ii. The compound interest for each bank and use the results to make an investment on which bank you going to deposit the money for investment.
- c. Captains plans to modernize his room in ruins and to do that he estimated that he will need to borrow K20, 000 for 185 days from bank. Find the face value of the 9% of simple discount note that would result in proceeds of K20, 000 to captain.
- d. A 30 days simple discount note has proceeds of K50,000 a discount rate of 9.1%, find the maturity value.

### Question Six

Discuss in detail, with clear examples and practical uses, the different types of annuities and perpetuities.

### Question Seven

Mr. Chanda is a hand sanitizer supplier operating within the central business district of Lusaka. It was estimated that his pre-COVID 19 demand was given by  $P = 85 -$

$0.5Q$  where  $P$  is the price and  $Q$  is the quantity. Given a constant average cost of K15, find the following:

- a. The profit given that Chanda is the sole supplier.
- b. The profit given that Chanda is operating under perfect competition.

- c. How many units of hand sanitizer would Chanda require in order to break-even?
- d. Show that for Chanda's business, the  $MR - AR = Q \cdot f(Q)$
- e. State the key conclusions which are derived from the condition in (d) above.

### Question Eight

- a. Alex and Frank are debating about the returns from an investment account. They have been told that the investment account promises to pay 14.5% interest each year given an initial deposit of K30,000. State whether the following statements are **TRUE** or **FALSE**.
  - i. After 3 years, the balance in the account will be more than K45,000.
  - ii. After 5 years, the compound interest will be less than K30,000.
  - iii. If the account only offers simple interest, the balance would be less than K70,000 after 10 years.
- b. Penzo has gotten a car loan from some money lender under the following terms:
  - A bank deposit of 10% will apply on the principal amount of K90,000.
  - The loan will attract an 8% interest per month, compoundable on a daily basis assuming 30 days in a month
    - i. How much will be paid out to Penzo in order for him to purchase the car?
    - ii. Assuming an equal distribution of the principal amount over a 9 months period, how much would be due at the middle of the second month?
    - iii. Assuming an equal distribution of the principal amount over a 3 months period, what will be the effective interest rate on the loan?  
[Hint: find the total interest as a proportion of the paid amount]

### Question Nine

A company is considering an investment in 3 alternative equipment's, each costing K8, 000. The operating cash flows are forecast as:

	Equipment (A)	Equipment (B)	Equipment (C)
Year 1	K3000	K1000	K7000
Year 2	K4000	K4000	K6000
Year 3	K2000	K500	K1500

The project is expected to have a three – year life, at the end of which the equipment (A) and (C) would have a sell-off value of K8000 each, whilst equipment (B) would have a sell-off value of K9000 at the end of year 3. The rate of tax on profits is 30%. The company's cost of capital is 10%. PV factors for the 3 years is 0.909, 0.826, and 0.751 in year 1, 2 and 3 respectively. For the purpose of evaluation, ignore the taxation. Calculate

- The payback period
- The discounted payback period
- The NPV
- Comment on the project, which investment is worthy undertaking?

### Question Ten

- The sum of the first 3 terms of a geometric series is 378. The sum of the first six terms is  
 $3367/512$ . Find the first term and common ratio.
- Find the sum of the series,  $1 + 3.5 + 6 + 8.5 + \dots \dots 101$
- Find the 9<sup>th</sup> term of the GP 2, –6, 18, ...
- How many terms are there in the geometric progression 2, 4, 8...128?

### Question Eleven

- Suppose we were examining an asset that promised to pay K400,000 at the end of each of the next three years. If we wanted to earn 11 percent on our money, how much would we offer for this annuity?
- Suppose you plan to contribute K3,000 every year to a retirement account paying 9%. If you retire in 40 years, how much will you have?

- What is the probability distribution of  $X$ ?
- What is the probability that it takes five games until her first win?
- What is the probability that she must play more than 10 games before her first win?
- What is the probability that she must play less than 7 games before her first win?
- Find the mean and standard deviation of  $X$ .

### Question Fifteen

- It has been discovered that 30% of workers in Lusaka use public transportation daily. In a sample of 10 workers, what is the probability that;
  - Exactly three workers use public transportation daily?
  - At least seven workers use public transportation daily?
- Airtel Zambia Limited on average receives 3 calls per hour on its toll-free number. Find the probability that it will receive the following.
  - At most 3 calls
  - At least 3 calls
  - Exactly 5 calls in 2 hours

### Question Sixteen

The University of Zambia Lecturers' population counts for COVID-19 condition and its screening test results are as shown in the table below. C means the condition is present and D means the screening test is positive.

	D	D <sup>c</sup>	Total
C	96	12	108
C <sup>c</sup>	48	564	612
Total	144	576	720

Using the information from the table above, answer the following questions;

- What proportion of the population is free of the condition?
- What proportion of the population has the condition and would test positive?
- Of those who have the condition, what proportion would test negative?

- c. Joseph is 30 years old and just received an inheritance from his parents' estate. He wants to invest an amount of money today such that he can receive \$5,000 at the end of every year for 15 years when he retires at age 65. If he can earn 8% compounded annually until age 65 and then 6% compounded annually when the fund is paying out, how much money must he invest today?
- d. State and explain the three (3) key amortization principles.

### Question Twelve

A consumer has  $K$  kwacha to spend on two commodities, the first of which costs  $z$  kwacha per unit and the second one  $w$  kwacha per unit. Suppose that the utility derived by the consumer from  $x$  units of the first commodity and  $y$  units of the second commodity is given by the utility function  $U(x, y) = x^m y^r$ , where  $m + r = 1$ . Show that utility will be maximized when  $x = \frac{Km}{z}$  and  $y = \frac{Kr}{w}$ , and find the expression for marginal utility of income.

### Question Thirteen

The Supreme Court of Zambia, is the final court of appeal and it has such jurisdiction and powers as conferred on it by the constitution and any other law. As a court with a final say in all legal matters, it can give punishment to a person who disobeys the law. Consider all courtroom trials with a single defendant who is charged with a serious crime. Suppose 82% of the defendants are in fact guilty. Given that the defendant is guilty, there is a 75% chance that the jury will convict the person. Given that the defendant is not guilty, there is a 40% chance that the jury will convict the person. For simplicity, assume that the only options available to the jury are; to convict or to release the defendant.

- a. What proportion of the defendants will be convicted by the jury?
- b. Given that a defendant is convicted, what is the probability that the person is in fact, guilty?
- c. What is the probability that the jury will make a correct decision?
- d. Given that the jury makes an incorrect decision, what is the probability that the decision is to release a guilty person?

### Question Fourteen

Cynthia has a 12% chance of winning a single game in a chess tournament. Let  $X$  represent the number of games she plays until she records her first win.

- d. What proportion of the population would receive a correct screening test result?
- e. Of those who would receive an incorrect screening test result, what proportion would receive a false negative?

#### **Question Seventeen**

- a. Simple random sampling is applied to all the clusters to obtain the desired sample? True or False
- b. Explain in detail, and using relevant examples, the following concepts
  - i. Simple random sampling
  - ii. Cluster sampling
  - iii. Judgement sampling
  - iv. Convenience sampling
- c. Briefly compare and contrast stratified and systematic sampling
- d. Discuss the properties of good point estimators

#### **Question Eighteen**

- a. Why is sampling important and necessary?
- b. What is sampling frame?
- c. Why is simple random sampling important?
- d. Which sampling technique will be appropriate for the following;
  - i. Selecting a sample of prostitutes in Ndola
  - ii. Selecting a sample of past graduates of a university
  - iii. Selecting a sample of intelligent students at UNZA.
- e. Identify the sampling approach being described by each of the following;
  - i. Using a random number generator to select 5 students out of a class list of 20.
  - ii. Randomly selecting low-income and high income consumers using income sub-groups.
  - iii. Selecting a random number between 1 and 10 and then picking every nth person after the first one.
  - iv. Randomly selecting households from each residential area in Lusaka.



### ***BONUS QUESTION***

#### **Question Nineteen**

Last year, UNZA management sent delegates to an Annual Economic Summit held in Livingstone. 20 delegates were from the school of education and 40 delegates from the school of humanities. A random sample of 10 UNZA delegates at the summit was asked to fill out attendance sheets. What is the probability that;

- a. None of them in the sample is a delegate from school of education?
- b. Only one of them in the sample is a delegate from school of education?
- c. Exactly nine delegates in the sample were from the school of humanities?
- d. The sample had at least two delegates from the school of education?

**END OF EXAMINATION**

Sup

**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
2019-2020 ACADEMIC YEAR  
JULY 2019 COHORT  
END OF YEAR FINAL EXAMINATION**

SEM 1040: BUSINESS MATHEMATICS AND STATISTICS

TIME: THREE (3) HOURS

INSTRUCTIONS: ANSWER **THREE QUESTIONS** IN TOTAL. **SECTION A IS COMPULSORY**, AND CHOOSE ANY **TWO QUESTIONS FROM SECTION B**. SHOW ALL YOUR WORK TO EARN MAXIMUM POINTS

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**SECTION A (COMPULSORY)**

**Question One**

State whether the following statements are true, false, or uncertain.

1. The formula for the binomial probability distribution takes into account both the probability of success as well as the probability of failure.
2. Regardless of whether the data is arranged in ascending or descending order, the medium remains unaffected?
3. The Binomial distribution is deeply rooted into the Geometric distribution?
4. A permutation is a product of the number of combinations of choosing  $N$  objects taking  $r$  objects at a time and  $r$  factorial.
5. Under a hypergeometric distribution, the probability of failure is unaffected by the preceding trial?
6. There is a proportionate cost sharing mechanism under the free alongside ship arrangement.
7. A parameter is a specific characteristic of the sample?
8. A series discount will always be beneficial to the buyer when compared to a single discount.
9. All normal distributions have a mean equal to zero.
10. The breakeven point is always nonnegative.

11. In the standard normal distribution, the mean is always 0 while the standard deviation may vary.
12. A continuous probability distribution allows the variable to be measured to any degree of precision.
13. The Z value for a particular outcome is equal to the difference between the outcome and the expected outcome measured in terms of standard deviations.
14. The hypergeometric distribution uses sampling "with replacement."
15. An example of a Bernoulli distribution is a student guessing the answer for a multiple choice question in an exam.
16. If we have two different normal curves, one standard deviation from the mean in each of these curves covers the same area.
17. Given a binomial variable with  $n = 40$  and the probability of a success on any given trial of 0.80, the expected number of successes per 40 trials would be 0.4.
18. The lagrangian function is not an unconstrained optimization problem.
19. In a binomial experiment the probability of success is always greater than or equal to the probability of failure.
20. A percentile divides the sample into two clusters.
21. The series discount 20/10 instead of a single discount of 30% relatively benefits the buyer.
22. The probability of failure is unaffected by the preceding probability of success under a hypergeometric distribution.
23. At the breakeven point, the firm always makes positive profits.
24. The standard normal distribution can be used to find probabilities of an asymmetrical normal distribution.
25. The trade discount and cash discount are simultaneously calculated.
26. A probability is an unweighted average measure.
27. Normal probability distribution is asymmetrical around a vertical line erected at the mean.
28. Mean of normal distribution lies at the tail of the normal curve, which is also the median and mode of the distribution.
29. Approximately 95.5 per cent of the values of a random variable in a normally distributed population lie within  $\pm 3\sigma$  standard deviation from the mean.
30. Z-score values cannot be negative or zero.
31. The mark-up is the subset of the selling price.

32. The probability of any event is always positive.
33. The mean value is directly proportional to the value of the outlier.
34. A seller can have a negative mark-up.
35. In some cases, the list price is equal to the net cost.
36. The breakeven point is the summation of the operating loss and reduced selling price.
37. A 20% mark-up on selling price selling price is equivalent to a 25% mark-up on cost.
38. A zero reduced selling price is possible.
39. Marking goods 20% above the cost price while allowing a 30% cash discount results in a net loss of 16%.
40. Descriptive statistics can be used to transform data to information?

## SECTION B (CHOOSE ANY TWO QUESTIONS)

### Question One

- a. Briefly define Central Measures of Spread/Variability
- b. Given the following datasets (a) 12, 6, 7, 3, 15, 10, 18, 5 and (b) 9, 3, 8, 8, 9, 8, 9, 18.
  - i. Find the range
  - ii. Calculate the standard deviation.
- c. Briefly define the concept of correlation

### Question Two

Solve the following

- a.  $\frac{1}{x-1} - \frac{x}{3} = 0$
- b. A small manufacturer produces two kinds of good, A and B, for which demand exceeds capacity. The production costs for A and B are K6 and K3 respectively. In addition, the transport costs are K0.2 and K0.3 for each good of type A and B respectively. The conditions of a bank loan limit the manufacturer to maximum weekly production costs of K2700 and maximum weekly transport costs of K120. Find the optimal levels to be produced for both goods.

### Question Three

- a. Suppose a seller sells laptops at a list price of K2100 with series discount of 40/10/5. Find
  - i. The amount of the discount
  - ii. The single equivalent rate of discount

- b. Suppose the laptops were bought at a net cost of K477.36 each after a series discount of 15/10/4. Calculate the list price
- c. Fill in the blanks for the following categories

	Series Discounts	List Price	Net Cost	Single Equivalent Discount (SED)
1	10/15	105.6	?	?
2	33.33333333/ 5/7	?	54.74	?
3	25/10/10/5	?	15.25	?

- d. Determine the payment needed to settle an invoice with a net amount of K950 dated 22<sup>nd</sup> September, with terms 2/10, n/30 if the invoice is paid on
- 10<sup>th</sup> October
  - 1<sup>st</sup> October

#### Question Four

Joseph runs a shop in Matero and paid K115.24 for a set of kitchen utensils. Operating expenses are 0.18 of the selling price and the required profit is 15% of the selling price. During the sale of the inventories, the set of the kitchen utensils were marked down 30%.

- What was the regular selling price?
- What was the sale price?
- What was the operating loss or profit?
- Suppose Joseph had earlier purchased another shop in Matero for \$57.75 from friend that was marked up 45% of the regular selling price. The outlet's overhead expenses were 28% of the regular selling price. When operations were discontinued, the shop was marked down 40%.
  - What was the sale price of shop?
  - How much was the operating profit or loss as a result of the sale?

#### Question Five

Trade Kings Zambia limited is trying to maximize its output  $Q = 12K^{0.4}L^{0.4}$  subject to the budget constraint  $40K + 5L = 800$ .

- Formulate the Lagrangian function for the above problem
- Find the optimal levels of  $K^*$  and  $L^*$
- Derive the value of the Lagrange multiplier,  $\lambda$ .

### Question Six

Briefly define the following;

- i. Central Measures of Location/Tendency
- ii. Skewness
- iii. Kurtosis
- iv. Random Variable
- v. Probability Density Function

### Question Seven

- a. State and explain the axioms of probability
- b. Define mutually exclusive and independent events
- c. Let us consider the performance of students in SEM1040 in the table below

	Male	Female
Passed	30	30
Fail	60	20

Find the probability that

- i. The student passed the course given that the student is male.
- ii. The student failed the course given that the student is female.
- iii. Given that the student failed the course, what is the probability that the student is male.

### Question Eight

- a. Define the following
  - i. Law of total probability
  - ii. Bayes Theorem
- b. Let us assume we are looking at the pass rate of GSB students in Business Mathematics and Statistics. John's pass rate assessment suggests that GSB students majoring in Accounting and Finance, Banking and Finance, and Human Resource

have pass rate of 70%, 50%, and 20% respectively. However, Andrew is sceptical about John's assessment. Therefore, to evaluate John's assessment, Andrew selects 30%, 50%, and 20% of the students majoring in Accounting and Finance, Banking and Finance, and Human Resource respectively. Thereafter, Andrew mixes the students from the three majors/programmes and picks one student at random.

- i. What is the probability that picked student passed Business Mathematics and Statistics?
- ii. Assuming that the student that Andrew picks passes, what is the probability that the picked student is majoring in Accounting and Finance?

### **Question Nine**

Briefly define the following and give examples;

- i. Stratified Sampling
- ii. Cluster Sampling
- iii. Systematic Sampling
- iv. Judgement Sampling
- v. Convenience Sampling
- vi. Snowball Sampling

### **Question 10**

- a. Define Central Limit Theorem
- b. State and explain in detail the following properties of estimators
  - i. Unbiased
  - ii. Efficiency
  - iii. Consistency

### **Question Eleven**

The probability that a defective pen is drawn from a box of pens is 0.1. If a sample of 6 pens is taken, find the probability that it will contain:

- a. No defectives pens
- b. 5 or 6 defective pens
- c. Atmost 1 defective
- d. At least 1 defective

### Question Twelve

The average number of days an GSB student will be absent for SEM1040 class is 5 days per month. Find the probability that a student will be absent for

- a. 4 days in a month
- b. 4 and 6 days in two and three months respectively.
- c. 4 and 6 days in two and three months.
- d. 4 and 6 days in two or three months

### Question Thirteen

Suppose a random variable  $X$  has the following probability density function

$$f(x) = \begin{cases} x, & 0 < x < 1 \\ 2 - x, & 1 \leq x < 2 \\ 0, & \text{elsewhere} \end{cases}$$

Find:

- 1)  $P(-1 < x < 0.5)$
- 2)  $P(X \leq 1.5)$
- 3)  $P(X > 2.5)$
- 4)  $P(0.25 < x < 1.5)$

### Question Fourteen

- a. Define continuous random variable
- b. State the properties of the standard normal distribution
- c. Engineers at TOYOTA have a new steel belt radial tire, and have estimated the mean tire mileage at  $\mu = 36500$  miles and the standard deviation at  $\sigma = 5000$  miles. Besides this, the data collected indicate that a normal distribution is a reasonable assumption. What percentage of the tires can be expected to last more than 40000 miles?

### Question Fifteen

Compare and contrast a sinking fund with an annuity and provide two business-related examples of the use of the sinking fund. For what purposes would an individual or business set up an annuity and a sinking fund? Would those purposes differ and, if so, explain in detail why?



### Question Sixteen

Consider a Waste Management Programme with the following annual net expected cash flows. If the cost of capital is 10%, what is the IRR? Is the investment worthwhile undertaking?

Year	Cash Flow
0	(20,000)
1	8,000
2	10,000
3	6,000
4	4,000

### Question Seventeen

Karen has an opportunity to invest in a new high-speed computer that costs K50,000. Karen expects that the computer will generate cash flows (from cost savings) of K25,000, K20,000, and K15,000 in years 1, 2, and 3 respectively. Thereafter, the computer will be worthless and thus no additional cash flows will be generated. Karen has determined that the appropriate discount rate is 7% for the computer investment. Should Karen invest in the new high speed computer?

### Question Eighteen

- Cheza wishes to withdraw K5000 and K6000 at the end of five years and six years respectively leaving a zero balance in the account after the last withdrawal. Assuming Cheza can earn 5% on the account balances, how much should Cheza deposit today in order to satisfy the future cash withdrawals?
- While in the US pursuing his internship, Cheza purchased a ticket in a state lottery and subsequently discovered that he was the lucky winner of the \$30 million prize state lottery, and was given two options to collect his prize money:  
Option one – 30 payments of \$1million per year effective today, or  
Option two – \$15 million paid today.  
Assuming a discount rate of 8%, which option should Cheza take? Please explain
- Cheza has always believed that he will forever be young and flourishing. However, upon turning 33 years old and after deep prayer and fasting as well as well witnessing

the diminishing prospects of immortality and sustained handsomeness, he decided to plan seriously for his retirement. He vowed that on each birthday, beginning in the subsequent year and ending when he turns 63, he will save K10000 with FNB. Assuming the account earns 10% per year, how much will Cheza have saved at age 63?

- d. Suppose Cheza anticipates his salary to increase each year after the internship and consequently believes that he will be able to increase his savings by 5% per year. Assuming he still earns 10% per year, what is the present value of his planned savings and how much will Cheza have saved at age 63?

#### **Question Nineteen**

- a. Suppose a perpetuity will pay a coupon of K1000 per year, beginning five years after the perpetuity is procured. Calculate the present value of this perpetuity on the date that its bought assuming that the discount rate is 4%.
- b. Sammy recently bought a plot worth K250000 using a 20-year loan facility offered by Stanbic Bank at an interest rate of 6% per year. Calculate the annual loan payment that Sammy must make to Stanbic Bank.
- c. Sammy is also interested in buying a brand new automobile costing \$35 000. A car dealership offers Portico a special discount rate of 6% for 48 months because of his good standing in society. Assuming Sammy finds the car dealer's financing deal attractive and takes it, calculate Sammy's monthly car payments.

#### **Question Twenty**

Define following and provide practical related examples

- a. Annuity and perpetuity
- b. Compounding
- c. Sinking Fund and Amortization
- d. Discounting

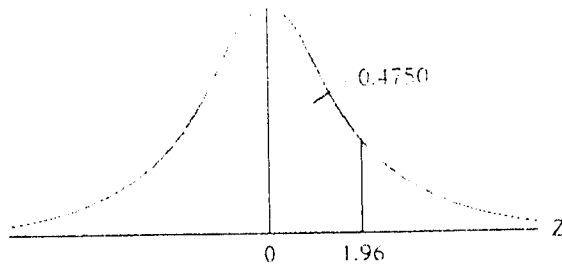
**END OF FINAL EXAMINATION**

# AREAS UNDER THE STANDARDIZED NORMAL DISTRIBUTION

## Example

$$\Pr(0 \leq Z \leq 1.96) = 0.4750$$

$$\Pr(Z \leq 1.96) = 0.5 + 0.4750 = 0.975$$



Z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.0000	.0040	.0080	.0120	.0160	.0199	.0239	.0279	.0319	.0359
0.1	.0398	.0438	.0478	.0517	.0557	.0596	.0636	.0675	.0714	.0753
0.2	.0793	.0832	.0871	.0910	.0948	.0987	.1026	.1064	.1103	.1141
0.3	.1179	.1217	.1255	.1293	.1331	.1368	.1406	.1443	.1480	.1517
0.4	.1554	.1591	.1628	.1664	.1700	.1736	.1772	.1808	.1844	.1879
0.5	.1915	.1950	.1985	.2019	.2054	.2088	.2123	.2157	.2190	.2224
0.6	.2257	.2291	.2324	.2357	.2389	.2422	.2454	.2486	.2517	.2549
0.7	.2580	.2611	.2642	.2673	.2704	.2734	.2764	.2794	.2823	.2852
0.8	.2881	.2910	.2939	.2967	.2995	.3023	.3051	.3078	.3106	.3133
0.9	.3159	.3186	.3212	.3238	.3264	.3289	.3315	.3340	.3365	.3389
1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621
1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830
1.2	.3849	.3869	.3888	.3907	.3925	.3944	.3962	.3980	.3997	.4015
1.3	.4032	.4049	.4066	.4082	.4099	.4115	.4131	.4147	.4162	.4177
1.4	.4192	.4207	.4222	.4236	.4251	.4265	.4279	.4292	.4306	.4319
1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4429	.4441
1.6	.4452	.4463	.4474	.4484	.4495	.4505	.4515	.4525	.4535	.4545
1.7	.4554	.4564	.4573	.4582	.4591	.4599	.4608	.4616	.4625	.4633
1.8	.4641	.4649	.4656	.4664	.4671	.4678	.4686	.4693	.4699	.4706
1.9	.4713	.4719	.4726	.4732	.4738	.4744	.4750	.4756	.4761	.4767
2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817
2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857
2.2	.4861	.4864	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890
2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916
2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936
2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952
2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964
2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974
2.8	.4974	.4975	.4976	.4977	.4977	.4978	.4979	.4979	.4980	.4981
2.9	.4981	.4982	.4982	.4983	.4984	.4984	.4985	.4985	.4986	.4986
3.0	.4987	.4987	.4987	.4988	.4988	.4989	.4989	.4989	.4990	.4990
3.1	.4990	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4993	.4993
3.2	.4993	.4993	.4994	.4994	.4994	.4994	.4994	.4995	.4995	.4995

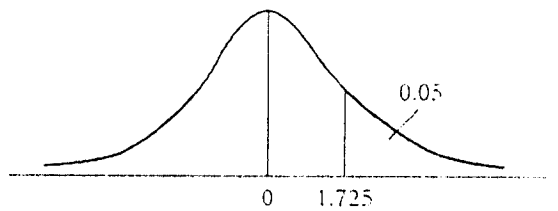
# PERCENTAGE POINTS OF THE t DISTRIBUTION

Example

$$\Pr(t > 2.086) = 0.025$$

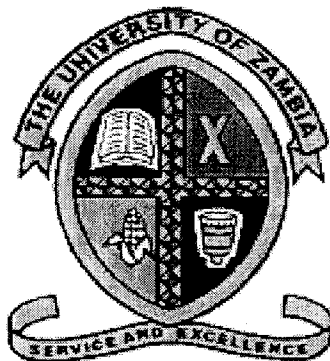
$$\Pr(t > 1.725) = 0.05 \quad \text{for } df = 20$$

$$\Pr(|t| > 1.725) = 0.10$$



df	Upper-tail probability p								
	0.2500	0.1000	0.0500	0.0250	0.0100	0.0050	0.0025	0.0010	0.0005
1	1.000	3.078	6.314	12.706	31.821	63.66	127.3	318.3	636.6
2	0.816	1.886	2.920	4.303	6.965	9.925	14.09	22.33	31.60
3	0.765	1.638	2.353	3.182	4.541	5.841	7.453	10.21	12.92
4	0.741	1.533	2.132	2.776	3.747	4.604	5.598	7.173	8.610
5	0.727	1.476	2.015	2.571	3.365	4.032	4.773	5.893	6.869
6	0.718	1.440	1.943	2.447	3.143	3.707	4.317	5.208	5.959
7	0.711	1.415	1.895	2.365	2.998	3.499	4.029	4.785	5.408
8	0.706	1.397	1.860	2.306	2.896	3.355	3.833	4.501	5.041
9	0.703	1.383	1.833	2.262	2.821	3.250	3.690	4.297	4.781
10	0.700	1.372	1.812	2.228	2.764	3.169	3.581	4.144	4.587
11	0.697	1.363	1.796	2.201	2.718	3.106	3.497	4.025	4.437
12	0.695	1.356	1.782	2.179	2.681	3.055	3.428	3.930	4.318
13	0.694	1.350	1.771	2.160	2.650	3.012	3.372	3.852	4.221
14	0.692	1.345	1.761	2.145	2.624	2.977	3.326	3.787	4.140
15	0.691	1.341	1.753	2.131	2.602	2.947	3.286	3.733	4.073
16	0.690	1.337	1.746	2.120	2.583	2.921	3.252	3.686	4.015
17	0.689	1.333	1.740	2.110	2.567	2.898	3.222	3.646	3.965
18	0.688	1.330	1.734	2.101	2.552	2.878	3.197	3.610	3.922
19	0.688	1.328	1.729	2.093	2.539	2.861	3.174	3.579	3.883
20	0.687	1.325	1.725	2.086	2.528	2.845	3.153	3.552	3.850
21	0.686	1.323	1.721	2.080	2.518	2.831	3.135	3.527	3.819
22	0.686	1.321	1.717	2.074	2.508	2.819	3.119	3.505	3.792
23	0.685	1.319	1.714	2.069	2.500	2.807	3.104	3.485	3.768
24	0.685	1.318	1.711	2.064	2.492	2.797	3.091	3.467	3.745
25	0.684	1.316	1.708	2.060	2.485	2.787	3.078	3.450	3.725
26	0.684	1.315	1.706	2.056	2.479	2.779	3.067	3.435	3.707
27	0.684	1.314	1.703	2.052	2.473	2.771	3.057	3.421	3.690
28	0.683	1.313	1.701	2.048	2.467	2.763	3.047	3.408	3.674
29	0.683	1.311	1.699	2.045	2.462	2.756	3.038	3.396	3.659
30	0.683	1.310	1.697	2.042	2.457	2.750	3.030	3.385	3.646
40	0.681	1.303	1.684	2.021	2.423	2.704	2.971	3.307	3.551
60	0.679	1.296	1.671	2.000	2.390	2.660	2.915	3.232	3.460
90	0.677	1.291	1.662	1.987	2.368	2.632	2.878	3.183	3.402
120	0.677	1.289	1.658	1.980	2.358	2.617	2.860	3.160	3.373
∞	0.675	1.282	1.645	1.960	2.327	2.576	2.808	3.091	3.291

Sauf



# THE UNIVERSITY OF ZAMBIA

## GRADUATE SCHOOL OF BUSINESS

2020 ACADEMIC YEAR – FEBRAURY COHORT

DEFERRED FINAL EXAMINATION

DATE: TUESDAY 6<sup>TH</sup> APRIL, 2021

**SEM1040: BUSINESS MATHEMATICS AND STATISTICS**

**TIME : 09:00 HOURS**

**DURATION : THREE (3) HOURS**

**VENUE : SPORTS HALL**

### INSTRUCTIONS:

1. **Section A** is Compulsory
  2. Choose Any **THREE** Questions from **Section B** in any order of your choice.
  3. Clearly show your working to earn maximum points
- 

**“DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO”**

## Section A – Compulsory

### Question One

*State whether the following statements are true, false or uncertain.*

1. A distribution is skewed to the right if a greater proportion of the measurements lie to the left of the peak value.
2. Measures of location refer to numbers that indicate the spread of observations.
3. If the random variable  $X$  is defined to be the number of trials on which the  $r$ -th success occurs, then  $X$  follows the geometric distribution.
4. The probability of an event is always positive.
5. The average number of days an economics student will be absent for a statistics class is 5 days per month. The probability that a student will be absent for 4 days in a month is 0.1655
6. When a fair coin is tossed 3 times, the probability of getting two heads is  $\frac{1}{4}$
7. If  $X$  denotes a discrete random variable, then  $P(X=C) = 0$  for every value of  $C$ .
8. A parameter is a numerical descriptive measure calculated from the sample
9. The Cumulative Distribution Function is a probability measure that gives probabilities of the possible values for a discrete random variable.
10. Statistical inference is the process of making an estimate, prediction or a decision about a population based on population data.
11. When constructing the confidence interval of the difference between the two population means, if the samples are small and their population variances are unknown and assumed to be unequal, we use  $n_1 + n_2 - 2$  as the degrees of freedom to obtain the critical  $t$ -value.
12. The sampling error increases as we increase the sampling size.
13. The amount of coffee consumed by an individual in a day is an example of a discrete random variable.
14. The median of the values 3.4, 4.7, 1.9, 7.6 and 6.5 is 1.9
15. If  $P(A \cup B) = P(A) + P(B)$ , then  $A$  and  $B$  are mutually exclusive events.
16. A random variable is a numerical description of the outcome of an experiment and it can be discrete or continuous

17. A biologist inoculates several mice, one at a time with a disease germ until he gets 3 that contract the disease. If the probability of a mice to contract the disease after inoculation is  $1/6$ . The probability that the experiment will require eight mice is 0.0391
18. The Binomial distribution reduces to a Bernoulli distribution when  $n = 1$
19. The standard error is always a non-negative value.
20. If  $X$  is a random variable that follows a poisson distribution, then its mean and variance are equal.
21. A box plot is a graphical representation of a 5-number summary consisting of the smallest observation, the first quartile, the median, the third quartile and the largest observation.
22. If the sample size is 40 and the sample mean is 15, then the sum of all observations in the sample is 600.

### Question Two

*The following are multiple-choice questions with four answer choices. Read each question and answer choice carefully and choose the **ONE** best answer*

1. When is the t-distribution used to obtain the critical value in developing a confidence interval estimate for the population mean?
  - a. When the sample standard deviation is unknown and the sample size is small
  - b. When the population standard deviation is known and the sample size is small
  - c. When the population variance is unknown and the sample size is small
  - d. When the population standard deviation is known and the sample size is large
2. Hotspur Way Liquors takes a random sample of 20 customers and records how long each occupied a table. They found a sample mean of 1.2 hours and a sample standard deviation of 0.3 hours. Find the 95% confidence interval for the mean
  - a.  $1.2 \pm 124$
  - b.  $1.2 \pm 118$
  - c.  $1.2 \pm 0.14$
  - d.  $1.2 \pm 0.16$
3. A random sample of 340 people in Lusaka showed that 66 watched ZNBC. What is the upper limit for the 95 percent confidence interval estimate for the proportion of people in Lusaka that watch ZNBC?
  - a. 1.96
  - b. 0.2366

- c. 0.2361
  - d. 0.2298
4. UTH plans to survey a random sample of its customers with an objective of estimating the mean kwachas spent on pharmaceutical products during the past two months. They have assumed that the population standard deviation is known to be K20.5. What would be the required sample size to estimate the population mean with 95 percent confidence and a margin of error of  $\pm$  K2.00?
    - a. 20
    - b. 231
    - c. 404
    - d. 40
  5. If a statistician wishes to reduce the margin of error associated with a confidence interval estimate for a population mean, he/she can:
    - a. Decrease the sample size
    - b. Use the t-distribution
    - c. Increase the sample size
    - d. Increase the confidence level
  6. The central limit theorem states that \_\_\_\_\_?
    - a. If the sample size decreases, then the sampling distribution much approach an exponential distribution
    - b. If the sample size increases, then the sampling distribution approaches normal distribution provided the sample is drawn from the normally distributed population
    - c. If the sample size increases, then the sampling distribution approaches the normal distribution regardless of the population from which the sample is drawn
    - d. if the sample size decreases then the sample distribution must approach normal distribution
  7. What is the margin of error?
    - a. The critical value times the standard error of the sampling distribution
    - b. The difference between the point estimate and the parameter
    - c. Both A and D
    - d. The largest possible sampling error at a specified level of confidence
  8. The area under a standard normal curve equals \_\_\_\_\_?
    - a. Undefined
    - b. 0



- c. 1
  - d. Infinity
9. Which of the following can be considered true when developing a confidence interval estimate for the population mean?
- a. The confidence interval developed from a smaller sample size will have a larger margin of error than one obtained using a larger sample size
  - b. If the population standard deviation is unknown and the sample size is small, the appropriate critical value should be obtained from the t-distribution
  - c. The larger the sample standard deviation, the wider will be the interval estimate
  - d. All of the above
10. Ceteris paribus, which of the following would increase the width of a confidence interval?
- a. A decrease in the standard deviation
  - b. Increasing the sample size
  - c. Decreasing the confidence level
  - d. Decreasing the sample size
11. In which of the following types of sampling methods, the information is carried out under the opinion of an expert?
- a. Convenience sampling
  - b. Cluster sampling
  - c. Systematic sampling
  - d. Judgment sampling
12. Which of the following statements applies to a point estimate?
- a. The point estimate is a parameter
  - b. The point estimate will tend to be accurate if the sample size exceeds 30 for non-normal populations
  - c. The point estimate is needed to determine the required sample size when estimating the population mean
  - d. The point estimate is subject to sampling error and will almost always be different than the population value
13. Which of the following shows the general format for a confidence interval?
- a. Point estimate  $\pm$  z (Standard deviation)
  - b. Point estimate  $\pm$  (critical value) (standard deviation)
  - c. Margin of error  $\pm$  (confidence coefficient) (standard error)

- d. Point estimate  $\pm$  (critical value) (standard error)
14. What do we call the difference between the parameter to be estimated and the expectation of an estimator?
- a. Error of margin
  - b. Difference
  - c. Contradiction
  - d. Bias
15. When does the sampling error occur?
- a. When a non-statistical sample is used
  - b. When a confidence interval is used to estimate a population value rather than a point estimate
  - c. When a random sample is used rather than a convenience sample
  - d. When the statistic computed from the sample is not equal to the parameter for the population
16. The University of Zambia collected a sample of 40 visitors to estimate the mean number of visits per day. They found that the variance was 36 visits. Using a 95% confidence level, what is their margin of error?
- a.  $\pm 11.1565$  visits
  - b.  $\pm 8.3$  visits
  - c.  $\pm 1.3$  visits
  - d.  $\pm 1.8594$  visits
17. Which of the following statements is true about the t-distribution?
- a. The t-distribution is more spread out than the standard normal distribution
  - b. The exact shape of the t-distribution depends on the number of degrees of freedom
  - c. It is symmetrical about the mean
  - d. All of the above
18. Which of the following is not true about stratified random sampling?
- a. It involves a random selection process from identified subgroups
  - b. Disproportional stratified random sampling is especially helpful for getting large enough subgroup samples when subgroup comparisons are to be done
  - c. Proportional stratified random sampling yields a representative sample
  - d. Proportions of groups in the sample must always match their population proportions

19. Which of the following sampling techniques is an equal probability selection method (i.e. EPSEM) in which every individual in the population has an equal chance of being selected?
- Simple random sampling
  - Systematic sampling
  - Proportional stratified sampling
  - All of the above are EPSEM
20. The General Manager at Oasis Cafeteria wants to determine how many students use the cafeteria on a regular basis. What type of sampling method would she use if he chose to randomly select 20 students in the cafeteria during each of the three lunch periods on Monday?
- Convenience sampling
  - Stratified random sampling
  - Simple random sampling
  - Quota sampling
21. Which of the following techniques yields a simple random sample?
- Choosing volunteers from an introductory psychology class to participate
  - Numbering all the elements of a sampling frame and then using a random number table to pick cases from the table
  - Listing the individuals by ethnic group and choosing a proportion from within each ethnic group at random
  - Randomly selecting schools, and then sampling everyone within the school
22. In which of the following sampling techniques does the researcher ask the research participants to identify other potential research participants?
- Quota sampling
  - Snowball sampling
  - Cluster sampling
  - Purposive sampling
23. Which of the following sampling technique would generally require the largest sample size?
- Simple random sampling
  - Cluster sampling
  - Systematic sampling
  - Proportional stratified sampling

24. The sampling type that involves selecting a convenience sample from a population with a specific set of characteristics for your research study is called \_\_\_\_.
- a. Convenience sampling
  - b. Purposive sampling
  - c. Quota sampling
  - d. Snowball sampling
25. The University of Zambia Chief Librarian wants to determine how many students use the library on a regular basis. What type of sampling method would she use if she chose to use a random number generator to randomly select 50 students from the school's attendance roster?
- a. Convenience Sample
  - b. Simple Random Sample
  - c. Stratified Random Sample
  - d. Systematic sampling
26. Which of the following is not an example of a non-probability sampling technique?
- a. Purposive sampling
  - b. Cluster sampling
  - c. Snowball sampling
  - d. Quota sampling
27. By using systematic sampling, what is the sample size a researcher would select from the population of 5000 people, given that the sample interval is 10?
- a. 51
  - b. 500
  - c. 1000
  - d. 2,500
28. Which of the following is a non-probability sampling technique?
- a. Snowball sampling
  - b. Convenience sampling
  - c. Quota sampling
  - d. All of the above

## Section B - Choose Any Two Questions

### Question Three

- a. A cheque of K1581.00 was received on 12<sup>th</sup> June in full payment of an invoice dated 6<sup>th</sup> June, with terms 7/10, n/30. What was the net amount of the invoice? [1 mark]
- b. Suppose you can purchase an item from one of the three companies; Company A for K3,200 with a trade discount of 30%, Company B for K2,900 with a trade discount of 20/10, or Company C for K3,450 with a trade discount of 20/15/5. Which company has the
- Highest discount?
  - Lowest net price?
- c. Fill the missing blanks in the table below [2 marks]

Product	List Price	Trade Discount(%)	Net Price	Single Cash Discount (%)	Net Amount Due
A	-	30	840	-	823.2
B	-	30/10	441	8%	-
C	-	25/15/5	484.5	-	465.12

- d. The Graduate School of Business (GSB) received an invoice dated 15<sup>th</sup> April from “Zibazako” Importers with terms 5/15, n/60 R.O.G for: 50 Tennis rackets at \$130.65 each; 500 Tennis Balls at \$10.50 each and 130 wristbands for \$20.75 each. All items are subject to trade discount of 30% regardless of the payment method.
- If the shipment was received on May 24, what is the last day for payment to get a discount?
  - What is the amount due if the invoice was paid in full on June 05?
  - Ignore parts (i) and (ii). If a partial payment is made on the last day of the discount period to reduce the invoice balance to \$5,000, what is the amount of the payment?

### Question Four

- Find the amount of discount, if the rate of discount is 11% and the list price is K213.99.
- Find the list price, if the rate of discount is 7% and the amount of discount is K29.99.
- Find the rate of discount, if the discount is K39.98 and the list price is K429.99

- d. The Agrarian Bike Shop buys a bike for K139.99 less a trade discount of 13%. What amount of discount does the bike shop obtain? What is the Net Price Factor (NPF) or Net Factor? What is the net price?
- e. The Agrarian Bike Shop buys a bike helmet for K49.99 less a trade discount of 11%, 5%, 3%. What is the net price of the bike helmet? What is the single equivalent rate of discount?

### Question Five

- a. Unza borrows 30 million for 9 months at an interest rate of 8%, find
  - i. Interest due on the loan
  - ii. The maturity value at the end of 9 months
- b. An investment at FNB pays 7% interest per year compounded monthly while an investment at ZANACO pays 7% interest per year compounded semi - annually, assuming you have K5000 to deposit in any bank for your investment, find
  - i. The compound amount after 6 years for each bank
  - ii. The compound interest for each bank and use the results to make an investment on which bank you going to deposit the money for investment.
- c. Captains plans to modernize his room in ruins and to do that he estimated that he will need to borrow K20, 000 for 185 days from bank. Find the face value of the 9% of simple discount note that would result in proceeds of K20, 000 to captain.
- d. A 30 days simple discount note has proceeds of K50,000 a discount rate of 9.1%, find the maturity value.

### Question Six

Discuss in detail, with clear examples and practical uses, the different types of annuities and perpetuities.

### Question Seven

Mr. Chanda is a hand sanitizer supplier operating within the central business district of Lusaka. It was estimated that his pre-COVID 19 demand was given by  $P = 85 - 0.5Q$  where  $P$  is the price and  $Q$  is the quantity. Given a constant average cost of K15, find the following:

- a. The profit given that Chanda is the sole supplier.
- b. The profit given that Chanda is operating under perfect competition.

- c. How many units of hand sanitizer would Chanda require in order to break-even?
- d. Show that for Chanda's business, the  $MR - AR = Q \cdot f(Q)$
- e. State the key conclusions which are derived from the condition in (d) above.

### Question Eight

- a. Alex and Frank are debating about the returns from an investment account. They have been told that the investment account promises to pay 14.5% interest each year given an initial deposit of K30,000. State whether the following statements are **TRUE** or **FALSE**.
  - i. After 3 years, the balance in the account will be more than K45,000.
  - ii. After 5 years, the compound interest will be less than K30,000.
  - iii. If the account only offers simple interest, the balance would be less than K70,000 after 10 years.
- b. Penzo has gotten a car loan from some money lender under the following terms:
  - A bank deposit of 10% will apply on the principal amount of K90,000.
  - The loan will attract an 8% interest per month, compoundable on a daily basis assuming 30 days in a month
  - i. How much will be paid out to Penzo in order for him to purchase the car?
  - ii. Assuming an equal distribution of the principal amount over a 9 months period, how much would be due at the middle of the second month?
  - iii. Assuming an equal distribution of the principal amount over a 3 months period, what will be the effective interest rate on the loan?  
[Hint: find the total interest as a proportion of the paid amount]

### Question Nine

A company is considering an investment in 3 alternative equipment's, each costing K8, 000. The operating cash flows are forecast as:

	Equipment (A)	Equipment (B)	Equipment (C)
Year 1	K3000	K1000	K7000
Year 2	K4000	K4000	K6000
Year 3	K2000	K500	K1500

The project is expected to have a three – year life, at the end of which the equipment (A) and (C) would have a sell-off value of K8000 each, whilst equipment (B) would have a sell-off value of K9000 at the end of year 3. The rate of tax on profits is 30%. The company's cost of capital is 10%. PV factors for the 3 years is 0.909, 0.826, and 0.751 in year 1, 2 and 3 respectively. For the purpose of evaluation, ignore the taxation. Calculate

- The payback period
- The discounted payback period
- The NPV
- Comment on the project, which investment is worthy undertaking?

### Question Ten

- The sum of the first 3 terms of a geometric series is 378. The sum of the first six terms is  
  
3367/512. Find the first term and common ratio.
- Find the sum of the series,  $1 + 3.5 + 6 + 8.5 + \dots$  ...101
- Find the 9<sup>th</sup> term of the GP 2, –6, 18, ...
- How many terms are there in the geometric progression 2, 4, 8...128?

### Question Eleven

- Suppose we were examining an asset that promised to pay K400,000 at the end of each of the next three years. If we wanted to earn 11 percent on our money, how much would we offer for this annuity?
- Suppose you plan to contribute K3,000 every year to a retirement account paying 9%. If you retire in 40 years, how much will you have?



- c. Joseph is 30 years old and just received an inheritance from his parents' estate. He wants to invest an amount of money today such that he can receive \$5,000 at the end of every year for 15 years when he retires at age 65. If he can earn 8% compounded annually until age 65 and then 6% compounded annually when the fund is paying out, how much money must he invest today?
- d. State and explain the three (3) key amortization principles.

### Question Twelve

A consumer has  $K$  kwacha to spend on two commodities, the first of which costs  $z$  kwacha per unit and the second one  $w$  kwacha per unit. Suppose that the utility derived by the consumer from  $x$  units of the first commodity and  $y$  units of the second commodity is given by the utility function  $U(x, y) = x^m y^r$ , where  $m + r = 1$ . Show that utility will be maximized when  $x = \frac{Km}{z}$  and  $y = \frac{Kr}{w}$ , and find the expression for marginal utility of income.

### Question Thirteen

The Supreme Court of Zambia, is the final court of appeal and it has such jurisdiction and powers as conferred on it by the constitution and any other law. As a court with a final say in all legal matters, it can give punishment to a person who disobeys the law. Consider all courtroom trials with a single defendant who is charged with a serious crime. Suppose 82% of the defendants are in fact guilty. Given that the defendant is guilty, there is a 75% chance that the jury will convict the person. Given that the defendant is not guilty, there is a 40% chance that the jury will convict the person. For simplicity, assume that the only options available to the jury are; to convict or to release the defendant.

- a. What proportion of the defendants will be convicted by the jury?
- b. Given that a defendant is convicted, what is the probability that the person is in fact, guilty?
- c. What is the probability that the jury will make a correct decision?
- d. Given that the jury makes an incorrect decision, what is the probability that the decision is to release a guilty person?

### Question Fourteen

Cynthia has a 12% chance of winning a single game in a chess tournament. Let  $X$  represent the number of games she plays until she records her first win.

- What is the probability distribution of  $X$ ?
- What is the probability that it takes five games until her first win?
- What is the probability that she must play more than 10 games before her first win?
- What is the probability that she must play less than 7 games before her first win?
- Find the mean and standard deviation of  $X$ .

### Question Fifteen

- It has been discovered that 30% of workers in Lusaka use public transportation daily. In a sample of 10 workers, what is the probability that;
  - Exactly three workers use public transportation daily?
  - At least seven workers use public transportation daily?
- Airtel Zambia Limited on average receives 3 calls per hour on its toll-free number. Find the probability that it will receive the following.
  - At most 3 calls
  - At least 3 calls
  - Exactly 5 calls in 2 hours

### Question Sixteen

The University of Zambia Lecturers' population counts for COVID-19 condition and its screening test results are as shown in the table below. C means the condition is present and D means the screening test is positive.

	<b>D</b>	<b>D<sup>c</sup></b>	<b>Total</b>
<b>C</b>	96	12	<b>108</b>
<b>C<sup>c</sup></b>	48	564	<b>612</b>
<b>Total</b>	<b>144</b>	<b>576</b>	<b>720</b>

Using the information from the table above, answer the following questions;

- What proportion of the population is free of the condition?
- What proportion of the population has the condition and would test positive?
- Of those who have the condition, what proportion would test negative?

- d. What proportion of the population would receive a correct screening test result?
- e. Of those who would receive an incorrect screening test result, what proportion would receive a false negative?

### **Question Seventeen**

- a. Simple random sampling is applied to all the clusters to obtain the desired sample? True or False
- b. Explain in detail, and using relevant examples, the following concepts
  - i. Simple random sampling
  - ii. Cluster sampling
  - iii. Judgement sampling
  - iv. Convenience sampling
- c. Briefly compare and contrast stratified and systematic sampling
- d. Discuss the properties of good point estimators

### **Question Eighteen**

- a. Why is sampling important and necessary?
- b. What is sampling frame?
- c. Why is simple random sampling important?
- d. Which sampling technique will be appropriate for the following;
  - i. Selecting a sample of prostitutes in Ndola
  - ii. Selecting a sample of past graduates of a university
  - iii. Selecting a sample of intelligent students at UNZA.
- e. Identify the sampling approach being described by each of the following;
  - i. Using a random number generator to select 5 students out of a class list of 20.
  - ii. Randomly selecting low-income and high income consumers using income sub-groups.
  - iii. Selecting a random number between 1 and 10 and then picking every nth person after the first one.
  - iv. Randomly selecting households from each residential area in Lusaka.

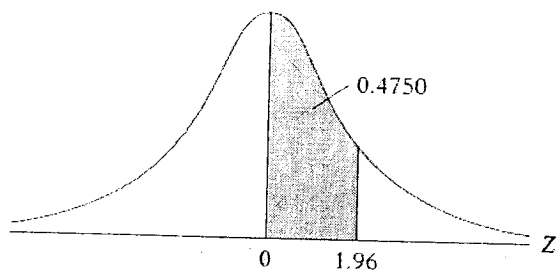
**END OF EXAMINATION**

# AREAS UNDER THE STANDARDIZED NORMAL DISTRIBUTION

Example

$$\Pr(0 \leq Z \leq 1.96) = 0.4750$$

$$\Pr(Z \geq 1.96) = 0.5 - 0.4750 = 0.025$$



Z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.0000	.0040	.0080	.0120	.0160	.0199	.0239	.0279	.0319	.0359
0.1	.0398	.0438	.0478	.0517	.0557	.0596	.0636	.0675	.0714	.0753
0.2	.0793	.0832	.0871	.0910	.0948	.0987	.1026	.1064	.1103	.1141
0.3	.1179	.1217	.1255	.1293	.1331	.1368	.1406	.1443	.1480	.1517
0.4	.1554	.1591	.1628	.1664	.1700	.1736	.1772	.1808	.1844	.1879
0.5	.1915	.1950	.1985	.2019	.2054	.2088	.2123	.2157	.2190	.2224
0.6	.2257	.2291	.2324	.2357	.2389	.2422	.2454	.2486	.2517	.2549
0.7	.2580	.2611	.2642	.2673	.2704	.2734	.2764	.2794	.2823	.2852
0.8	.2881	.2910	.2939	.2967	.2995	.3023	.3051	.3078	.3106	.3133
0.9	.3159	.3186	.3212	.3238	.3264	.3289	.3315	.3340	.3365	.3389
1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621
1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830
1.2	.3849	.3869	.3888	.3907	.3925	.3944	.3962	.3980	.3997	.4015
1.3	.4032	.4049	.4066	.4082	.4099	.4115	.4131	.4147	.4162	.4177
1.4	.4192	.4207	.4222	.4236	.4251	.4265	.4279	.4292	.4306	.4319
1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4429	.4441
1.6	.4452	.4463	.4474	.4484	.4495	.4505	.4515	.4525	.4535	.4545
1.7	.4554	.4564	.4573	.4582	.4591	.4599	.4608	.4616	.4625	.4633
1.8	.4641	.4649	.4656	.4664	.4671	.4678	.4686	.4693	.4699	.4706
1.9	.4713	.4719	.4726	.4732	.4738	.4744	.4750	.4756	.4761	.4767
2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817
2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857
2.2	.4861	.4864	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890
2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916
2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936
2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952
2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964
2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974
2.8	.4974	.4975	.4976	.4977	.4977	.4978	.4979	.4979	.4980	.4981
2.9	.4981	.4982	.4982	.4983	.4984	.4984	.4985	.4985	.4986	.4986
3.0	.4987	.4987	.4987	.4988	.4988	.4989	.4989	.4989	.4990	.4990
3.1	.4990	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4993	.4993
3.2	.4993	.4993	.4994	.4994	.4994	.4994	.4994	.4995	.4995	.4995

2.58 + 2.34  
2

2.325

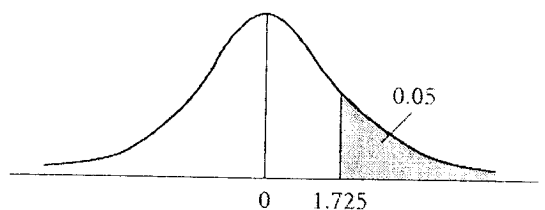
# PERCENTAGE POINTS OF THE *t* DISTRIBUTION

## Example

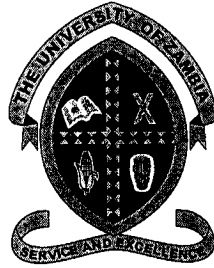
$$\Pr(t > 2.086) = 0.025$$

$$\Pr(t > 1.725) = 0.05 \quad \text{for } df = 20$$

$$\Pr(|t| > 1.725) = 0.10$$



df	Upper-tail probability p								
	0.2500	0.1000	0.0500	0.0250	0.0100	0.0050	0.0025	0.0010	0.0005
1	1.000	3.078	6.314	12.706	31.821	63.66	127.3	318.3	636.6
2	0.816	1.886	2.920	4.303	6.965	9.925	14.09	22.33	31.60
3	0.765	1.638	2.353	3.182	4.541	5.841	7.453	10.21	12.92
4	0.741	1.533	2.132	2.776	3.747	4.604	5.598	7.173	8.610
5	0.727	1.476	2.015	2.571	3.365	4.032	4.773	5.893	6.869
6	0.718	1.440	1.943	2.447	3.143	3.707	4.317	5.208	5.959
7	0.711	1.415	1.895	2.365	2.998	3.499	4.029	4.785	5.408
8	0.706	1.397	1.860	2.306	2.896	3.355	3.833	4.501	5.041
9	0.703	1.383	1.833	2.262	2.821	3.250	3.690	4.297	4.781
10	0.700	1.372	1.812	2.228	2.764	3.169	3.581	4.144	4.587
11	0.697	1.363	1.796	2.201	2.718	3.106	3.497	4.025	4.437
12	0.695	1.356	1.782	2.179	2.681	3.055	3.428	3.930	4.318
13	0.694	1.350	1.771	2.160	2.650	3.012	3.372	3.852	4.221
14	0.692	1.345	1.761	2.145	2.624	2.977	3.326	3.787	4.140
15	0.691	1.341	1.753	2.131	2.602	2.947	3.286	3.733	4.073
16	0.690	1.337	1.746	2.120	2.583	2.921	3.252	3.686	4.015
17	0.689	1.333	1.740	2.110	2.567	2.898	3.222	3.646	3.965
18	0.688	1.330	1.734	2.101	2.552	2.878	3.197	3.610	3.922
19	0.688	1.328	1.729	2.093	2.539	2.861	3.174	3.579	3.883
20	0.687	1.325	1.725	2.086	2.528	2.845	3.153	3.552	3.850
21	0.686	1.323	1.721	2.080	2.518	2.831	3.135	3.527	3.819
22	0.686	1.321	1.717	2.074	2.508	2.819	3.119	3.505	3.792
23	0.685	1.319	1.714	2.069	2.500	2.807	3.104	3.485	3.768
24	0.685	1.318	1.711	2.064	2.492	2.797	3.091	3.467	3.745
25	0.684	1.316	1.708	2.060	2.485	2.787	3.078	3.450	3.725
26	0.684	1.315	1.706	2.056	2.479	2.779	3.067	3.435	3.707
27	0.684	1.314	1.703	2.052	2.473	2.771	3.057	3.421	3.690
28	0.683	1.313	1.701	2.048	2.467	2.763	3.047	3.408	3.674
29	0.683	1.311	1.699	2.045	2.462	2.756	3.038	3.396	3.659
30	0.683	1.310	1.697	2.042	2.457	2.750	3.030	3.385	3.646
40	0.681	1.303	1.684	2.021	2.423	2.704	2.971	3.307	3.551
60	0.679	1.296	1.671	2.000	2.390	2.660	2.915	3.232	3.460
90	0.677	1.291	1.662	1.987	2.368	2.632	2.878	3.183	3.402
120	0.677	1.289	1.658	1.980	2.358	2.617	2.860	3.160	3.373
∞	0.675	1.282	1.645	1.960	2.327	2.576	2.808	3.091	3.291



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**Monday 21<sup>st</sup> September 2020**

**SEM1050: PRINCIPLES OF MANAGEMENT**

Time Allowed: **3 hours**

There are six questions in this Examination Paper

SECTION A and B are Compulsory and Answer any two from SECTION C

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A (COMPULSORY)

### QUESTION ONE

Multiple choice- Write your answer in the answer booklet

1. According to Frederick Taylor, who was to blame for the inefficiency in organisations?
  - (a) The unions
  - (b) The managers.
  - (c) The organisation as a whole.
  - (d) The workers
2. Line organization is also known as \_\_\_\_\_ organization.
  - (a) Scalar
  - (b) Chain
  - (c) Matrix
  - (d) Project
3. An advantage of the matrix structure is said to be –
  - (a) Because product lines can be identified as cost centres, it facilitates financial control
  - (b) Top management has more time to devote to long term strategic issues
  - (c) It is easily understood by the people involved
  - (d) Improved lateral communications.
4. Organizational structure is made up of key elements. Which of the following is not one of these elements?
  - (a) Centralisation
  - (b) Coordination
  - (c) Decentralisation
  - (d) Span of control
5. Which type of issues are first level managers routinely influenced by?
  - a) long range issues
  - b) short range issues
  - c) strategic issues
  - d) shareholder issues
6. Which management principle does matrix organization violate?
  - (a) Unity of command
  - (b) Unity of Direction
  - (c) Esprit de corps
  - (d) Centralization
7. A concern having textile, chemicals, plastics fertilizers follow departmentation based on
  - (a) Process
  - (b) Product
  - (c) Functions
  - (d) Geographical areas

8. The act of entrusting subordinates with the same power that are of the superior is termed
- (a) Decentralization
  - (b) Centralization
  - (c) Delegation
  - (d) Departmentation
9. According to Herzberg's motivation hygiene theory, the opposite of satisfaction is, \_\_\_\_\_
- (a) Dissatisfaction
  - (b) No satisfaction
  - (c) No dissatisfaction
  - (d) All of the above
10. Decentralisation is a disadvantage due to
- (a) Growth and diversification
  - (b) Lack of uniformity
  - (c) Executive development
  - (d) All of the above
11. Which of the following DOES refer to the ability of an individual to analyse complex situations and to rationally interpret the available information?
- (a) Individual skills
  - (b) Technical skills
  - (c) Conceptual skills
  - (d) Human Skills
12. Which of the following concepts refer to the system of matching the available resources, either internally or externally, with the demand that the organization expects to have over a period of time?
- (a) Human Resource Process
  - (b) Human Resource Performance
  - (c) Human Resource Planning
  - (d) Human Resource Information System
13. Which of the following approaches to Human Resource Management suggests that treating employees with respect would improve employee satisfaction and help in achieving higher productivity?
- (a) Scientific Management Approach
  - (b) Human Resource Approach
  - (c) Human Accounting Approach
  - (d) Human Relations Approach
14. Choose the best option that fits the meaning of the word 'benchmarking'?
- (a) Setting targets to be achieved.
  - (b) Setting goals and measuring performance
  - (c) Setting goals and measuring productivity based on the best industry practices
  - (d) All of the above.



15. You are directed to study the factors that are close to the company that affect its ability to serve its customers the company, suppliers, marketing intermediaries, customer markets, competitors, and publics. What are you studying?
- (a) The macro environment
  - (b) The global environment
  - (c) The microenvironment
  - (d) The national environment
16. PESTEL analysis is:
- (a) broad framework to help managers understand the environment in which their business operates
  - (b) Checklist to ask how political, economic, strategic or technological development influence an industry and a company
  - (c) a checklist for forecasting political economic strategic or technological factors
  - (d) a framework for strategic analysis of internal and external environment
17. The main disadvantage of a general partnership is:
- (a) The unlimited liability of the partners
  - (b) Disagreements amongst partners
  - (c) Shared management
  - (d) Difficulty of termination
18. A \_\_\_\_\_ partner is an owner who has unlimited liability and is active in managing the firm:
- (a) Senior partner
  - (b) General partner
  - (c) Silent partner
  - (d) Limited partner
19. The interest of shareholders in an organization arises from which of the following?
- (a) Wage levels, costs and prices
  - (b) Profit levels, dividend payments and share price
  - (c) Value of contracts and their profit margin
  - (d) Interest paid, corporation tax and VAT
20. The .....role, identified by Mintzberg includes the specific roles of entrepreneur, disturbance handler, resource allocator and negotiator.
- (a) Decisional.
  - (b) Interpersonal
  - (c) Informational.
  - (d) Administrative
21. According to Herzberg ..... are job content factors which lead to job dis-satisfaction :
- (a) Motivators.
  - (b) Hygiene factors.
  - (c) Context factors.
  - (d) Psychological factors
22. Self-actualisation and esteem needs in Maslow's theory correspond to..... factor in Herzberg's theory :

- (a) Interpersonal relations.
- (b) Working conditions.
- (c) Challenging work.
- (d) Quality of supervision.

23. Henry Mintzberg classified the managerial roles of recipient, disseminator and spokesperson as.....

- (a) Interpersonal roles.
- (b) Informational roles
- (c) Decisional roles.
- (d) Intelligence roles.

24. .... refers to the number of subordinates a superior can supervise efficiently and effectively.

- (a) Span of authority
- (b) Span of control
- (c) Span of direction
- (d) Span of power.

25. Which of the following is not an external environment?

- (a) Political.
- (b) Social.
- (c) Organisational policies.
- (d) Technology.

**(25 Marks)**

## **SECTION B (COMPULSORY)**

### **QUESTION TWO**

Audrey is an incredible cake maker and would like to go into business for herself, but she needs some money to get started. Her two friends want to help her get her feet on the ground and start her business. They agree to invest in her business; however, they don't want to be involved in any part of the business. Audrey asks your company supervisor for advice on how to organize her business. The task is assigned to you.

- a. What business form would suit the needs of Audrey?
- b. Give five (5) advantages of this form of business.
- c. Which kind of production method do you think will favour Audrey's line of business and why?
- d. What advantages would she enjoy if she operated as a licenced franchisee?

**(25 Marks)**

**SECTION C (ANSWER ANY TWO QUESTIONS FROM THIS SECTION)**

**QUESTION THREE**

Describe the main aspects of F. W. Taylor's Scientific Management Theory giving its relevance in today's organizations.

**(25 Marks)**

**QUESTION FOUR**

Location decisions are usually pretty important – to both large and small businesses. The location decision has a direct effect on an operation's costs as well as its ability to serve customers. Explain the demand and supply factors affecting choice of location.

**(25 Marks)**

**QUESTION FIVE**

Explain the product life cycle and what strategies can be used by manager to market the product at each a marketing stage.

**(25 Marks)**

**QUESTION SIX**

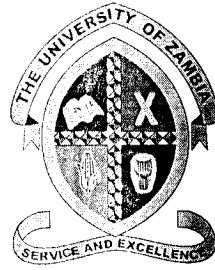
Write brief notes on the following:

- a) Industrial Inertia
- b) Marketing Mix
- c) Differences between Job and Batch Production
- d) PESTEL analysis
- e) Purchasing mix

**(25 Marks)**

**END OF EXAMINATION**

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**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**Monday 21<sup>st</sup> September 2020**

**SEM1050: PRINCIPLES OF MANAGEMENT**

Time Allowed: **3 hours**

There are six questions in this Examination Paper

SECTION A and B are Compulsory and Answer any two from SECTION C

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A (COMPULSORY)**

### **QUESTION ONE**

**Multiple choice- Write your answer in the answer booklet**

1. According to Frederick Taylor, who was to blame for the inefficiency in organisations?
  - (a) The unions
  - (b) The managers.
  - (c) The organisation as a whole.
  - (d) The workers
2. Line organization is also known as \_\_\_\_\_ organization.
  - (a) Scalar
  - (b) Chain
  - (c) Matrix
  - (d) Project
3. An advantage of the matrix structure is said to be –
  - (a) Because product lines can be identified as cost centres, it facilitates financial control
  - (b) Top management has more time to devote to long term strategic issues
  - (c) It is easily understood by the people involved
  - (d) Improved lateral communications.
4. Organizational structure is made up of key elements. Which of the following is not one of these elements?
  - (a) Centralisation
  - (b) Coordination
  - (c) Decentralisation
  - (d) Span of control
5. Which type of issues are first level managers routinely influenced by?
  - a) long range issues
  - b) short range issues
  - c) strategic issues
  - d) shareholder issues
6. Which management principle does matrix organization violate?
  - (a) Unity of command
  - (b) Unity of Direction
  - (c) Esprit de corps
  - (d) Centralization
7. A concern having textile, chemicals, plastics fertilizers follow departmentation based on
  - (a) Process
  - (b) Product
  - (c) Functions
  - (d) Geographical areas

8. The act of entrusting subordinates with the same power that are of the superior is termed
- (a) Decentralization
  - (b) Centralization
  - (c) Delegation
  - (d) Departmentation
9. According to Herzberg's motivation hygiene theory, the opposite of satisfaction is, \_\_\_\_\_
- (a) Dissatisfaction
  - (b) No satisfaction
  - (c) No dissatisfaction
  - (d) All of the above
10. Decentralisation is a disadvantage due to
- (a) Growth and diversification
  - (b) Lack of uniformity
  - (c) Executive development
  - (d) All of the above
11. Which of the following DOES refer to the ability of an individual to analyse complex situations and to rationally interpret the available information?
- (a) Individual skills
  - (b) Technical skills
  - (c) Conceptual skills
  - (d) Human Skills
12. Which of the following concepts refer to the system of matching the available resources, either internally or externally, with the demand that the organization expects to have over a period of time?
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## **SECTION B (COMPULSORY)**

### **QUESTION TWO**

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**(25 Marks)**



**SECTION C (ANSWER ANY TWO QUESTIONS FROM THIS SECTION)**

**QUESTION THREE**

Describe the main aspects of F. W. Taylor's Scientific Management Theory giving its relevance in today's organizations.

**(25 Marks)**

**QUESTION FOUR**

Location decisions are usually pretty important – to both large and small businesses. The location decision has a direct effect on an operation's costs as well as its ability to serve customers. Explain the demand and supply factors affecting choice of location.

**(25 Marks)**

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**(25 Marks)**

**QUESTION SIX**

Write brief notes on the following:

- a) Industrial Inertia
- b) Marketing Mix
- c) Differences between Job and Batch Production
- d) PESTEL analysis
- e) Purchasing mix

**(25 Marks)**

**END OF EXAMINATION**



THE UNIVERSITY OF ZAMBIA  
UNIVERSITY EXAMINATIONS  
GRADUATE SCHOOL OF BUSINESS  
2018/2019 ACADEMIC YEAR

COURSE NAME & CODE: BUSINESS LAW (SEM 1062)

DATE: 15<sup>th</sup> JUNE, 2019

TIME: 14:00-17:00HRS

**INSTRUCTIONS**

QUESTION **ONE** IS COMPULSORY

ATTEMPT ANY OTHER **THREE (3)** FROM SECTION B

TIME ALLOWED IS THREE HOURS

DO NOT TURN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO

## SECTION A

### QUESTION ONE

Lyambai Gershom has been doing business with four of his partners namely, Jabes, Shamwali, Yangeni and Suzeki. It has been agreed upon that all the business partners would share in the profits and losses equally.

On the 19<sup>th</sup> May, 2018, Lyambai's brother in law by the name of Justo voluntarily began to help Lyambai in the business. Lyambai was extremely pleased as the business began to post huge profits more than ever before. Moved by the good gesture of his brother in law, Lyambai promised Justo to pay him K7, 000 for the five months he had volunteered to help out in the business. It was later agreed that moving forward, Lyambai would be paying Justo a sum of K2, 500 monthly as remuneration.

Excited with this news, Justo applied himself fully to the job to the extent that the fortunes of the business changed positively. This positive evolution prompted Lyambai to promise Justo that he would buy him a flat in Kabwata on his 36<sup>th</sup> birthday.

Justo's 36<sup>th</sup> birthday fell on the 19<sup>th</sup> January, 2019. However, no flat in Kabwata has been bought for him. Further, Justo has not yet been paid the K7,000 he was promised neither has he been receiving his monthly salary as agreed. On the 25<sup>th</sup> April, 2019, Justo reminded Lyambai on the outstanding obligations owed to him. Lyambai, simply responded, "Young man, you must be eternally grateful that I married your ugly sister that no man would ever marry; that is enough burden I am carrying for your entire family! Please stop day dreaming about these payments that are non-existent!"

Justo is considering taking the matter to court so that the court endorses his entitlement to the payments due to him. Further, Justo wishes to bring to the attention of the court that he had brought so much value to the business of his brother in law and as such he deserved to be paid a monthly wage of K4,000 monthly pay as opposed to the agreed K2,500. Justo has in his possession business documents that are testament to the effect that the business made colossal

profits beyond projections. One of the document contains a part where Lyambai attributes the flourishing business to the magic hand of his brother in law.

Before going to court, Justo approaches you seeking legal advice on the prospect of his claims succeeding in the courts of law. With the aid of authorities, identify all the legal issues and advise Justo on the prospects of success in court on each of the claims he seeks to asset.

**Total [24 Marks]**

## **SECTION B**

### **QUESTION TWO**

The Lusaka High Court last week dismissed an action with costs instituted by Gentleman Banda against Bwalya Johnson, who was claiming the total sum of K230, 000. The facts before the court were that: Bwalya Johnson, a leading manufacturer of a popular drink called 'Mango Juicy' had three years ago placed an advertisement in the local paper known as, 'Sharp Sales' undertaking to give out a sum K30, 000 in exchange for a formula for making the said drink which would be more efficient and cost effective. The advert ran for three weeks and was never formally withdrawn. Two years later, Gentleman Banda invented a formula that he presented to Bwalya, which immediately changed the economic fortunes of the business by increasing sales with huge profits sustained over a period of six months. When Banda demanded payments for the formula tendered to the business, Bwalya responded by stating that he was not obliged to make the payment as promised. Further, he argued that the efficiency of the formula did not prove to be sustainable since profits were only recorded within six months and later the business barely made any profits.

**Total [12 Marks]**

### **QUESTION THREE**

Young Bosale, a popular Rhumba singer in the Democratic Republic of Congo, is scheduled to perform alongside the 'Tulange Band' during the opening of the 47<sup>th</sup> Agriculture and Commercial Show in the Lusaka Showground. The amount payable as agreed between the organisers of the show and Young Bosale is K250,000. An initial deposit of K50, 000 was paid to the singer to enable him prepare and also cater for transport costs for him and his band

(dancing queens). Upon arrival, in Zambia, on the 23<sup>rd</sup> of July, 2018, he is appalled to be informed by the organisers of the show that the opening of the event had been rescheduled to a date to be communicated to him later. Young Bosale is enraged at the turn of events. "You know what, guys? Just pay me my balance so that I go back. As far as I am concerned, I have performed my part of the bargain," shouted Young Bosale. The organisers calmed him down and explained to him that the change in the schedule of events was as a result of sudden illness of the King of Zoboland, who was to grace the event. "Regardless, I must be paid my balance in full! Is it my fault that your guest of honour or whatever you call him is unwell?" Young Bosale retorted.

The organisers of the show have come to you seeking legal advice on how they must proceed regarding the contractual agreement with Young Bosale. Advise them accordingly.

**Total[12 Marks]**

#### **QUESTION FOUR**

With sufficient clarity, discuss how the Infant Relief Act of 1874 has altered the common law rules that regulated the contractual ability of a minor.

**Total[12 Marks]**

#### **QUESTION FIVE**

"The notion of '*quid pro quo*' is the very essence of a bargain in every simple contract."

Critically analyse the above assertion.

**Total [12 Marks]**

#### **QUESTION SIX**

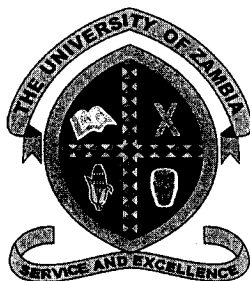
- (a) The case of *Carlill v Carbolic Smoke Ball Company* (1892) EWCA establishes critical principles in the law of contract. Briefly discuss these principles. [6 Marks]
- (b) Discuss the court structure in Zambia and the nature of the jurisdiction exercised by these courts [6 Marks]

**Total[12 Marks]**

### **QUESTION SEVEN**

- (a) With aid of authorities, discuss how the agency relationship may be formed through ratification, cohabitation and statutory provisions. [6 marks]
- (b) Discuss the duties and rights of an agent. [6 Marks]

**Total[12 Marks]**



## THE UNIVERSITY OF ZAMBIA

### GRADUATE SCHOOL OF BUSINESS JULY 2019 COHORT

#### (SESSIONAL EXAMINATION)

DATE: 20<sup>TH</sup> DECEMBER, 2019

*SEM 1062*  
**SOB1065: BUSINESS LAW**

EXAM TIME: 09:00 HOURS

DURATION: THREE (3) HOURS (PLUS 5 MINS. FOR READING)

#### INSTRUCTIONS:

1. Read ALL Instructions CAREFULLY and UNDERSTAND them.
  2. Read Each and Every Question CAREFULLY and UNDERSTAND the Information Given.
  3. The Paper has a Total Number of Seven (7) Questions. Question ONE is COMPULSORY.
  4. Answer a Total of FOUR (4) Questions INCLUSIVE of Question ONE (1); and then attempt ONE question from each of the OTHER sections.
  5. Marks Allocation Indicates the Depth of the Answer Expected.
  6. BOOKS and REFERENCE WORKS of any kind are FORBIDDEN under penalty; nor is any computing device, in whatever form, permitted in the examination hall.
- 

DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO

**SECTION A: COMPULSORY QUESTION**

**Q. 1.** "A principal is liable on contracts made by the agent if the agent has express, implied, or apparent authority to make the contracts in question."- Metzger, *et al.*, **Business Law and the Regulatory Environment: Concepts and Cases (6<sup>th</sup> Edn.)**, (Homewood, Illinois: Richard D. Irwin, Inc., 1986), p. 379.

Distinguish each of the above 3 kinds of authority from the other.

**(Total marks-18)**

**SECTION B: SELECT ONE OF TWO QUESTIONS**

**Q. 2.** Compare and contrast the following:

- (a) Warranty and Conditions (6 Marks);and
- (b) **Quantum Meruit** and Damages (8 Marks)

**(Total marks-14)**

**Q. 3.** Write brief notes on the following:

- (a) Consideration (6 marks);
- (b) Offer and Acceptance (4 marks); and
- (c) Stare Decisis (4 marks).

**(Total marks-14)**

**SECTION C: SELECT ONE OF TWO QUESTIONS**

**Q. 4(i).** What is the main function of courts in a business environment? (6 marks)

(ii). Outline the hierarchy of the courts of Zambia beginning with the Magistrate's courts up to the highest court under the Constitution. Specifically highlight the kind of jurisdiction possessed by each of those courts (8 marks).

**(Total marks-14)**

<sup>5</sup>  
**Q. 5.** Distinguish each of the following as a source of law in Zambia: (1) Constitution; (2) Acts of Parliament; and (3) Common Law and the Doctrines of Equity. Where possible, give examples to illustrate how these laws differ from each other.

**(Total marks-14)**

**SECTION D: SELECT ONE OF TWO QUESTIONS**

**Q. 6.** Discuss 5 different ways by which a contract may be discharged at common law.

**(Total marks-14)**



**Q. 7(i).** Describe the key elements required to form a valid contract in Zambia (5.5 marks)?

(ii). Discuss what amounts to a (1) void; (2) voidable; and (3) illegal contract (8.5.

**(Total marks-14)**

**TOTAL OF EXAMINATION MARKS: 60%**



The University of Zambia

Graduate School of Business

Business Law (SEM 1062)

2020 Academic Year Final Examination

Date: 22 September 2020 Time: 14:00 to 17:00 hours

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**INSTRUCTIONS:**

1. This examination is divided in **Four (4) Parts – A, B, C and D.**
2. Answer Four (4) questions.
3. **Part A** is compulsory. Answer one question from Part B, Part C and Part D.
4. Time allowed: **Three (3) hours** plus **five (5) minutes** to read through the examination paper.
5. This examination carries a total of **60 marks.**
6. Mobile telephones, tablets, watches, clocks or any other form of computing or electronic instruments are **not allowed** into the examination room.
7. Candidates are permitted to bring the Sale of Goods Act of 1893 into the examination room.

## Part A (Compulsory Question)

### Question 1

On 10 February 2020, Mulenga advertised the sale of a vitange 1982 Toyota Land Cruiser FJ in various local newspapers of nation circulation in Zambia. The advert in part states:

*"For sale, 1982 Toyota Land Cruiser FJ at USD 35,000, Contact 0966xxxxxxx for all correspondences"*

The following day Chitalu called and informed Mulenga that he is ready to buy the car for USD20 ,000. Mulenga advised Chitalu that he is unable to sale the car at that price. In response to the rejection, Chitalu requested for the "last price" which Mulenga would accept. Mulenga replied stating that the "last price" he is willing to accept is USD 32,000. Chitalu advised that he will be in touch once he has organized the funds.

On 13 February, Jane saw the advert and forwarded it to her boyfriend Mumbi who immediately called Mulenga and expressed his interest to buy the car at USD 35,000. Unfortunately, Mulenga's phone was off. To ensure that he does not miss out on this deal, Mumbi sent an email to Mulenga confirming that he will buy the car for USD 35,000. Later that evening, Mulenga met Cleopatra a long time acquaintance of Mulenga during a social gathering and she expressed her interest to buy the car at USD 25,000. Mulenga indicated to her that he is willing to sale the car to her but would get back to her the following day with full details regarding the sale.

At the same gathering, Ernest Mulenga's uncle after overhearing Mulenga's conversation with Cleopatra, expressed interest to buy the car as a gift for his wife. Mulenga agreed to sale the car to Ernest, in consideration of all the help Mulenga received from Ernest towards his education and a small sum of USD 5,000.

On 14 May Cleopatra transferred the sum of USD 15,000 as the first installment with a promise to pay the balance on 15 February. On the same day, Mulenga received communication from: (a) Chitalu indicating that he is ready to transfer the sum of USD 32,000 and to collect the car; (b) Ernest advising that he will paid the sum of USD 5,000 upon collection of the car on 17 February; and (c) Mumbi requesting when he can pay and collect the car.

On 14 February an advert published by the Daily Mail indicated that a Mr. Musonda is looking for a 1982 Toyota Land Cruiser FJ to buy for a reasonable price of between USD 50,000 to USD 100,000. Upon reading the advert in the Daily Mail, Mulenga has changed his mind and does not want to sale the car.

Required:

With the aid of appropriate legal authorities' advise Mulenga.

Total Marks: 18

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## **Part B (Law of contract and vitiating factors in a contract)**

### **Question 2**

Using your knowledge of law of contract and any decided cases, explain the following:

- (a) the circumstances under which a valid contract may be brought to an end; **(8 Marks)** and
- (b) three remedies available to an innocent/injured party to the contract **(6 Marks)**.

**Total Marks: 14**

### **Question 3**

For there to be a valid contract, there must be an agreement, intention to create legal relations, consideration and contractual capacity. Discuss the key principles underlying the concept of intention to create legal relations and consideration.

**Total Marks: 14**

## **Part C ( Partnership and Agency)**

### **Question 4**

- (a) Explain the circumstances in which one member of the partnership can make fellow members liable in contract or in tort; **(8 Marks)** and
- (b) Explain the three (3) requisites for partnership formation. **(6 Marks)**

**Total Marks: 14**

### **Question 5**

With the aid of decided cases, explain the different ways in which an agent can acquire authority to bind a principal to a contract with a third party.

**Total Marks: 14**

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## Part D (Sale of Goods and Negligence)

### Question 6

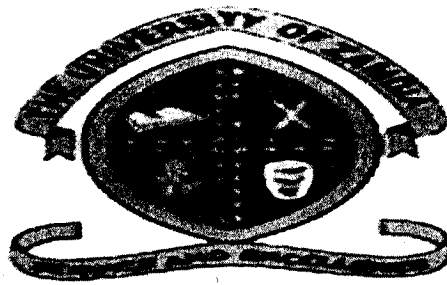
- (a) Mulenga's bicycle chain broke and he went with it to the Bike Auto-shop which stocked spare parts for bicycles. Mr. Patel looked at the chain once and told Mulenga that it would cost him fifty kwacha. Mulenga paid and a packed chain was delivered to him. But when he tried to mount the chain on the bicycle, it could not fit because it was too short. He returned it to the shop where he was shown a disclaimer at the back of the receipt that 'goods once sold, are not returnable'. State three (3) conditions that the seller (Mr. Patel) may have breached. **(6 Marks)**
- (b) With the aid of decided cases, explain the matters which need to be proved in order to establish that the tort of negligence has been committed. **(8 Marks)**

**Total Marks: 14**

### Question 7

- (a) Explain the extent to which liability in negligence can be reduced or extinguished. **(6 Marks)**
- (b) With the aid of appropriate legal provisions, work out who will own the goods in the following **(8 Marks)**:
- i. A has agreed that B can borrow his bicycle while A goes on holiday. Without permission or authority B sells the bicycle to C who believes that B is the owner of the bicycle. A did not know B well and made no attempt to check whether or not he was honest.
  - ii. An art dealer who often sells paintings on behalf of clients is asked to renovate a painting by K, so that K can sell it at auction. L visits the art dealers shop while the art dealer is having lunch and the art dealer shop assistance sells the painting to L.
  - iii. N visits an art dealers' shop and examines a painting for some considerable time. Later N phones the shops and makes a definite agreement to buy the painting for ZMW 20,000. The shop dealer is to deliver the painting to N house the following day. Later by mistake a shop assistance sells the same painting to Z who takes it away.
  - iv. P buys a machine from Q for ZMW 40,000. Ownership is not to pass to P until the full price has been paid. P takes possession of the machine and without Q's permission or knowledge sells the machine to R. P has now become solvent.

**Total Marks: 14**



THE UNIVERSITY OF ZAMBIA

GRADUATE SCHOOL OF BUSINESS STUDIES

SEM2021: CORPORATE GOVERNANCE AND BUSINESS ETHICS

JANUARY 2021 SUPPLEMENTARY EXAMINATION

FRIDAY, 5<sup>TH</sup> FEBRUARY 2021

TIME: 09:00 - 12:00

### INSTRUCTIONS TO CANDIDATES

1. This paper is divided into **TWO** sections:

**Section A:** Two (2) Compulsory Questions.

**Section B:** Three (3) Optional Questions. Attempt any two (2) questions.

2. Enter your student number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
3. Do **NOT** write in pencil (except for graphs and diagrams).
4. 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.
5. Do not turn this paper until you are told to do so.
6. The total marks are **100**.

**Section A – These TWO questions are compulsory, and MUST be attempted**

**QUESTION 1**

- (a) Private Sector Governance is better than Public Sector Governance. Discuss. (10 marks)
- (b) Should Corporate Governance be guided by rules or principles? Discuss. (10 marks)
- (c) The position of CEO and Chairman in an entity should be held by one person. Discuss. (10 marks)

**[Total = 25 Marks]**

**QUESTION 2**

The International Federation of Accountants (IFAC) code of professional ethics (2009), adopted as being relevant to ZICA/ACCA/CIMA members and Professional /College/University students, contains the following advice. 'A professional accountant in business or an immediate or close family member may be offered an inducement. Inducements may take various forms, including gifts, hospitality, preferential treatment, and inappropriate appeals to friendship or loyalty. Offers of inducements may create threats to compliance with the fundamental principles [of professionalism].'

Executive director and qualified accountant Mwewa Zulu was in charge of awarding large outsourcing contracts for a large public listed company. When his family fell into debt, he looked for a way to make some additional income. When his company was seeking to place a contract for a large outsourced service, without inviting other tenders from which to select, he accepted a bid from one supplier who said it would pay him K50,000 as a 'thank you' once the contract was awarded. He justified his behaviour by reminding himself that he obtained his job partly because he was an accountant and that he had worked extremely hard to obtain his accounting qualification. He believed he was entitled to make a 'higher personal return' on his investment of time and effort in his accountancy training and through successful qualification as a professional accountant.

**Required:**

- (a) Briefly describe the five types of ethical threats in the IFAC code of professional ethics (2009) and discuss how accepting excessive 'gifts' or 'hospitality' can give rise to some of these threats within this case. (10 marks)
- (b) Criticise Mwewa Zulu's beliefs and behaviour, and explain why accepting the K50,000 conflicts with his duty to uphold the public interest. (5 marks)
- (c) The IFAC code also highlights the need for: 'up-to-date education [for directors] on ethical issues and the legal restrictions and other regulations around potential insider trading.' Explain what 'insider dealing/trading' is and why it is an unethical and often illegal practice. (5 marks)

**[Total = 20 Marks]**

## Section B – Attempt any TWO questions from this section

### QUESTION 3

Distinguish the following and provide relevant examples:

- (i) Business ethics and Professional ethics in corporate governance (5 marks)
- (ii) Accountability and Responsibility in corporate governance (5 marks)
- (iii) Communication and coordination in corporate governance (4 marks)
- (iv) Executive directors and non-executive directors (5 marks)
- (v) Consequential and duty based ethical decision-making frameworks (5 marks)

**[Total = 25 marks]**

### QUESTION 4

Ethical dilemmas involve unclear choices of what is right and wrong. In other words, ethical dilemmas are situations where two ethical values or requirements seem to be incompatible. An ethical dilemma is a problem where a person has to choose between a moral and an immoral act. Employees must deal with pressures to perform and help the company succeed as well as deal with personal temptations to take the easy way out. They can also arise where two conflicting demands or obligations are placed on an individual. In fact, the choice could be what is the least wrong course of action to take. In such circumstances there is little an individual can do but to seek advice and trust their own instincts to make the correct choice.

#### **Required:**

- (i) Identify and elaborate on the **four (4)** sets of values where ethical dilemmas and conflicts of interest occur as a result of tension among them (8 marks)
- (ii) Identify and elaborate some **six (6)** selected specific triggers of ethical dilemmas (12 marks)
- (iii) Recommend **five (5)** measures that could put in place for an organisation to manage ethical dilemmas (5 marks)

**[25 Marks]**



## QUESTION 5

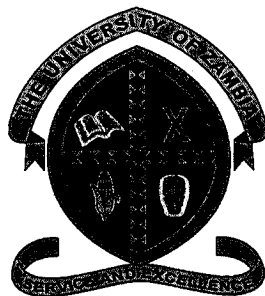
Internal control has been defined as the process designed and effected by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws and regulations designed and implemented to address identified business risks, financial risks, compliance risks, operational risks and other risks that threaten the achievement of any of the objectives.

### Required:

- (a) Critically examine the key responsibilities of board members in relation to ensuring the effectiveness of internal controls. (5 marks)
- (b) Identify and elaborate on the **five (5)** key components of internal control framework (10 marks)
- (c) Identify and elaborate on the **five (5)** internal control procedures (10 marks)

**[25 Marks]**

**END OF PAPER**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE**

**JULY 2020/FEBRUARY 2019 COHORT**

**SESSIONAL EXAMINATION**

**DATE: 24<sup>TH</sup> SEPTEMBER, 2020**

**SEM 4021: ENTREPRENEURSHIP AND SMALL  
BUSINESS MANAGEMENT**

**TIME: THREE (3) HOURS**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Five (5) Questions.
  2. Answer all questions in section
  3. Marks Allocation Indicates the Depth of the Answer Expected.
- 

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## QUESTION ONE

### Section A (CASE STUDY)

#### AN ASSESSMENT OF THE INVESTMENT CLIMATE IN ZAMBIA

In spite of broad economic reforms, Zambia today confronts the challenge of diversifying its economy and accelerating private-led growth to address the poverty of its people. Until recently, the people of Zambia were becoming ever poorer. Economic reforms in the late 1990s brought some tangible benefits, with a greater focus on fiscal discipline, better governance and promoting private-led economic growth. As the new policies were put into effect, the economy responded favourably, producing four consecutive years of solid growth, with real GDP rising 3.7 percent per annum between 1999 and 2002.

However, the failure to complete the reform process left the economy vulnerable to circumstances, such as drought and a secular decline in copper prices, which together slowed the economy. Although, recently, copper prices have improved and rains have fallen, Zambia must confront the challenge of the long-term decline in the contribution of copper to the economy, by creating the macro- and microeconomic conditions for private sector-led growth in a more diversified economy.

Zambia's future does not lie in the government selecting sectors to promote, but in creating policies and institutions that encourage investors to productively and creatively employ its resources and its people. As is now well known, economic growth is critical to poverty reduction – the central objective of the Government.

To increase employment and wages, productivity must increase. Both productivity and growth are achieved primarily through the development of the private sector, in the context of an enabling and competitive investment climate. The challenge is to continually improve conditions over a sustained period in a logical sequence of reforms that improves Zambia's competitive position as a host for investment, while maximizing the benefit of this growth for its people through appropriate investments in people.

The Zambia Investment Climate Assessment (ICA) forms part of World Bank Group global initiative to systematically analyse conditions for private investment and enterprise

growth. Improving the investment climate is recognized as a key pillar of developing countries' path to promote economic growth and reduce poverty. Investment Climate Assessments provide a standardized way of measuring and comparing investment climate conditions in a country, highlighting the microeconomic and institutional conditions inhibiting constraining productive investment.

They help to identify priority problems whose improvement would yield the greatest and most immediate gains, looking in detail at impediments (including policy, regulatory and institutional factors) that constrain the effective functioning of product markets, financial and non-financial factor markets, and infrastructure services. The ICA compliments and amplifies a series of diagnostic work on this issue being undertaken by the World Bank Group in collaboration with the Government of Zambia.

The Zambia Investment Climate Assessment (ICA) is also part of a broader, inter-regional program of investment climate studies of the World Bank Group. Throughout this report, empirical results showing the relative position of Zambia versus potential competitors will be presented. To understand the quality of investment climate in Zambia from the perspective of the private sector, the report draws on the results of a firm survey conducted in 2003, covering a sample of more than 200 service and manufacturing firms, large and small, located in different parts of Zambia.

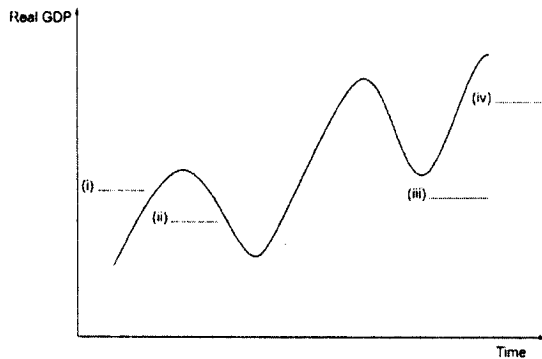
*(Source: World Bank, 2004)*

### Question one (scenario based)

- a) **TakeltAll** is an international business organisation that is interested in investing in Zambia, however, given this report, they are reluctant. As a business environment student, make a presentation to **TakeltAll** highlighting any 5 economic variables that that would influence this organisation's decision to invest in Zambia. [10 mark]
- b) From the case study, it can be stated that the Zambian government has been promoting policies that would result in Zambia adopting a free market economic system. Discuss the pros and cons of such an economic system. [10 marks]
- c) With practical illustrations, provide an analysis on how diversification of the Zambian economy and accelerating private led sector would reduce poverty.

### QUESTION TWO

- (a) Consider the business cycle below.



- (i) Explain the difference between stages (ii) and (iv) of the business cycle. [5 marks]
  - (ii) Distinguish between the terms Fiscal policy and monetary policy and effect on the business [5 marks]
- (b) Discuss the key characteristics that make-up the 'DNA' of an Entrepreneurs. What are the key entrepreneurial abilities and skills that are required to underpin successful business launch and development? Use any relevant examples to support your discussion. [5 marks]
- (c) State two (2) main reasons why Business Managers should consider strategic allies as critical elements of the external environment. [5 marks]

## **SECTION B**

### **QUESTION ONE**

- (a) Describe four (4) main characteristics of a partnership and list three (3) advantages and three (3) disadvantages of establishing this form of business. **[10 marks]**
- (b) Ulabeja Yebo Enterprises operates successfully as a sole trader and the owner has a plan of turning the business into a limited company. As a business consultant advise the owner on the benefits of implementing the plan. **[10 marks]**

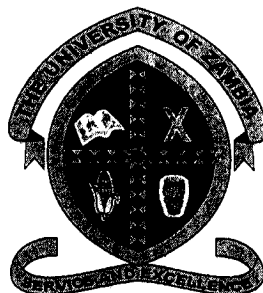
### **QUESTION TWO**

- (a) Explain what is meant by corporate personality and state its implications on shareholders. **[5 marks]**
- (b) Why do you think that some successful entrepreneurs have had difficulties in managing their companies beyond the start-up stage? **[5 Marks]**
- (C) Explain what is meant by the micro environment and state at least four constituent elements of this environment. **[10 Marks]**

### **QUESTION THREE**

The failure rate of a number business has been attributed to such businesses not examining the demographic variables that affect the performance of their businesses. With clear illustrations, justify this statement by explaining the impact of any five (5) demographic variables on the performance of a business organization. **[10 Marks]**

***End of examination***



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE**

**FEBRUARY 2019 COHORT**

**SESSIONAL EXAMINATION**

**DATE: 2<sup>nd</sup> February, 2021**

**SEM 4021: ENTREPRENEURSHIP AND SMALL  
BUSINESS MANAGEMENT**

**TIME: THREE (3) HOURS**

**INSTRUCTIONS:**

1. The Paper has a Total Number of Four (4) Questions.
  2. Answer all questions
  3. Marks Allocation Indicates the Depth of the Answer Expected.
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**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **Section A (Case Study)**

### **QUESTION ONE**

#### **Customer Service**

A lady in a faded gingham dress and her husband, dressed in a homespun threadbare suit, stepped off the train in Boston, and walked timidly without an appointment into the president's outer office.

The secretary could tell in a moment that such backwoods, country hicks had no business at Harvard and probably didn't even deserve to be in Cambridge. She frowned. "We want to see the president," the man said softly. "He'll be busy all day," the secretary snapped. "We'll wait," the lady replied. For hours, the secretary ignored them, hoping that the couple would finally become discouraged and go away. They didn't. And the secretary grew frustrated and finally decided to disturb the president, even though it was a chore she always regretted to do. "Maybe if they just see you for a few minutes, they'll leave," she told him. And he signed in exasperation and nodded.

Someone of his importance obviously didn't have the time to spend with them, but he detested gingham dresses and homespun suits cluttering up his outer office. The president, stern-faced with dignity, strutted toward the couple.

The lady told him, "We had a son that attended Harvard for one year. He loved Harvard. He was happy here. But about a year ago, he was accidentally killed. And my husband and I would like to erect a memorial to him, somewhere on campus." The president wasn't touched; he was shocked. "Madam," he said gruffly, "We can't put up a statue for every person who attended Harvard and died. If we did, this place would look like a cemetery." "Oh, no," the lady explained quickly, "We don't want to erect a statue. We thought we would like to give a building to Harvard."

The president rolled his eyes. He glanced at the gingham dress and homespun suit, then exclaimed, "A building! Do you have any earthly idea how much a building costs? We have over seven and a half million dollars in the physical plant at Harvard." For a moment the lady was silent. The president was pleased. He could get rid of them now.



And the lady turned to her husband and said quietly, "Is that all it costs to start a University? Why don't we just start our own university?" Her husband nodded. The president's face wilted in confusion and bewilderment. And Mr. and Mrs. Leland Stanford walked away, traveling to Palo Alto, California, where they established the Stanford University that bears their name, a memorial to a son that Harvard no longer cared about. When the story was published on how Mr. and Mrs. Leland Stanford were treated at Harvard University, the president was fired.

### **SCENARIO BASED**

#### **Required**

- 1) We want to see the president," the man said softly. "He'll be busy all day," the secretary snapped. Why was Mr. and Mrs. Leland Stanford persistent in wanting to meet the president and what entrepreneurship lesson could be drawn from their actions? **(15 Marks)**
- 2) What opportunities did Harvard University lose due to their poor Customer Service? **(15 Marks)**
- 3) What kind of Entrepreneurs were Mr. and Mrs. Leland Stanford? What are some of the challenges that Entrepreneurs face in starting own business **(10 Marks)**

### **QUESTION TWO**

Think about the industry and make a list of the PEST factors that might affect the strategic choices. What changes might you see in that list in 10 years' time?

**(20 Marks)**

## **SECTION B**

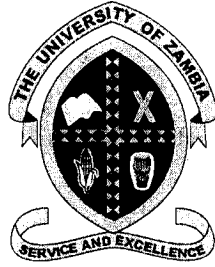
### **QUESTION ONE**

Write short notes on the following: **(4 marks each)**

- (i)** Limited liability
- (ii)** Monopolistic competition
- (iii)** Business cycles
- (iv)** Partnership Deed
- (v)** Red ocean and Blue Ocean Strategies

### **QUESTION TWO**

The failure rate of a number business has been attributed to such businesses not examining the demographic variables that affect the performance of their businesses. With clear illustrations, justify this statement by explaining the impact of any five (5) demographic variables on the performance of a business organisation. **(20 marks)**



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

**All Under Graduate Programmes**

**Wednesday 11<sup>th</sup> December 2019**

## **SOB1011: BUSINESS COMMUNICATION**

### **Instructions Format**

Time Allowed: **3 hours**

There are Three sections in this paper.

Sections A and B are Compulsory. Choose two questions from section C

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

**SECTION A ANSWER ALL QUESTIONS**

**(20 marks)**

You are the office manager for MNC System, Inc, a start-up IT firm in Lusaka (22/F, Linkage Building, 188 president Street, Lusaka). Recently you bought 10 modems from LC Supplies, a computer hardware supplier in Kitwe (12/F, Parkland Building, 276 Harcourt Road, Kitwe). Two weeks after installing the modems to the computer systems in your office, you discovered that two of the modems could not function properly. Since you have already paid the full amount for the modems, you are entitled to enjoy the two-year warranty that comes with the product including free replacement for any products bought within one month.

You called their customer service department to ask for a replacement last Wednesday and was told that the replacement would be delivered to your office the following Monday. It is now already Wednesday and you still have not heard anything from them. You really need the two modems immediately for your company is working on a major project with an approaching deadline. This is the first time you have ordered from Precision Supplies and may be the last.

**Required:**

- a. Write a letter of complaint to demand for an immediate replacement or a full refund. (10 marks)
- b. Write a memo to your managing director explaining what has transpired (10 marks)

**SECTION B ANSWER ALL QUESTIONS**

**(30 marks)**

1. Which of the following is NOT an external business written communication?
  - a. Complaint letter
  - b. Curriculum Vitae
  - c. Memo
  - d. Enquiries letter
2. Circular letters are used to
  - a. Communicate with one employee
  - b. Communicate with other organisations
  - c. Communicate the same information with several people
  - d. None of the above
3. Vertical communication flows from
  - a. Top to the bottom
  - b. Bottom top direction
  - c. All of the above
  - d. None of the above
4. Which of the following is not a barrier to communication?
  - a. Networks
  - b. Information overload
  - c. Noise
  - d. Lack of interest

- e. None of the above
- 5. Which sequence best describes the effective communication process?
  - a. Message, Sender, Receiver, Medium, feedback.
  - b. Message, Receiver, Sender, Medium, feedback.
  - c. Decoder, Message, Medium, Receiver, feedback.
  - d. None of the above.
- 6. The purpose of objectives in your presentations is to
  - a. Guide your presentation
  - b. Help you decide the content of your presentation
  - c. Both A and B
  - d. None of the above
- 7. What is the importance of rehearsal before your final presentation?
  - a. Know your visual aids
  - b. Evaluate your delivery
  - c. Time your self
  - d. All the above
  - e. None of the above
- 8. The method used to deliver a message is called .....
- 9. The interpretation of nonverbal signals is similar in all cultures.
  - a. True
  - b. False
- 10. All of the following are important to conducting productive meetings except
  - a. Provision of drinks
  - b. Planning for the meeting
  - c. Identification of the participants
  - d. Setting an agenda
  - e. None of the above
- 11. State the components of a report from the prefatory (10 marks)
- 12. With the aid of clearly labelled diagrams the five communication networks (10 marks)

## SECTION B (CHOOSE TWO(2) QUESTIONS)

### Question One

- a. What is the purpose of note taking? (2marks)
- b. Mention three(3) source of information for note taking (3marks)
- c. Explain the following note taking methods
  - i. Cornell Method (5 marks)
  - ii. Linear method (5marks)
- d. What principles would you use for note taking (10marks)

Total **25 marks**

### Question Two

- a. What are the advantages of verbal communication over written communication? (10marks)
- b. List five examples for written oral and nonverbal communication (15marks)

### Question Three

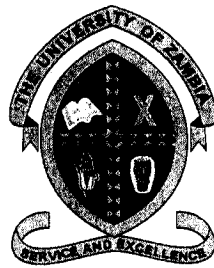
The marketing department in your organisation has not met its target in the last three months Write a report on the recent happenings in your organisation (25 marks)

### Question four

You are the secretary of a newly appointed committee in you organisation you work for

- a. what role will you play before during and after the meeting (10 marks)
- b. What do you consider when preparing for a meeting (10marks)
- c. List the features of an agenda (5marks)

**The End**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

### **Undergraduate Examinations**

**January, 2021**

### **SOB1011: BUSINESS COMMUNICATION**

#### **Instructions Format**

1. Time Allowed: 3 hours
2. There are three (3) sections in this paper. Sections A and B are compulsory
3. Pick two (2) questions from section C

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## Section A (compulsory) Answer all question

1. The following are types of communication except?
  - a. Written
  - b. Oral
  - c. Non verbal
  - d. All of the above
  - e. None of the above
2. Which of the following is not a barrier to communication?
  - a. Networks
  - b. Information overload
  - c. Noise
  - d. Lack of interest
  - e. None of the above
3. Which sequence best describes the effective communication process?
  - a. Message, Sender, Receiver, Medium, feedback.
  - b. Message, Receiver, Sender, Medium, feedback.
  - c. Decoder, Message, Medium, Receiver, feedback.
  - d. Encoder, Message, Medium, Receiver, feedback.
  - e. None of the above.
4. The purpose of objectives in your presentations is to
  - a. Guide your presentation
  - b. Help you decide the content of your presentation
  - c. Both A and B
  - d. None of the above
5. What is the importance of rehearsal before your final presentation?
  - a. Know your visual aids
  - b. Evaluate your delivery
  - c. Time your self
  - d. All the above
  - e. None of the above
6. Mention three (3) things to consider when selection a medium of communication (3marks)
7. Mention any three (2) advantages and three (2) disadvantages of oral communication (4marks)
8. Note taking is import for retrieval of information and aiding the learning process. Outline four (4) principles of note taking. (4 marks)
9. Clearly, explain the seven (7) Cs for effective communication (14 marks)
10. Explain and illustrate the five communication networks (10 marks)



## **SECTION B**

### **QUESTION ONE (compulsory)**

James Mbuzi made an order for a graduation gown from the customer service department at the University of Zambia. The agreement was that the gown will be delivered to his Hotel room by 31<sup>st</sup> December 2020. However, till this day James has not received it. Playing the role of;

- a) James write a complaint letter as to the manager and make your demand (10marks)
- b) manager at customer service responding to the complaint made by James (10marks)

**Total 20 marks**

**Pick three (2) questions**

### **QUESTION ONE**

You have been asked to participate in negotiation for the upcoming collective bargaining with the organisations trade unions

- a) Explain how you intend to prepare (10 marks)
- b) What principles will you follow? (5marks)
- c) What may likely cause the negotiations to fail? (5 marks)

**Total 20 marks**

### **QUESTION TWO**

You are required to make a presentation to Business Administration Lecturers on a topic in Management

- a) Explain how you will proceed conducting the presentation (before and during the presentation itself) (15marks)
- b) Outline the five verbal skill that you will use in your presentation (5marks)

**Total 20 marks**

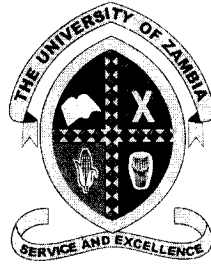
### **QUESTION THREE**

You are the secretary of a newly appointed committee in you organisation you work for

- a. what role will you play before during and after the meeting? (10 marks)
- b. What do you consider when preparing for a meeting? (5marks)
- c. List the features of an agenda of the meeting (5marks)

**Total 20 marks**

**End**



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

## **Undergraduate Examinations**

**January, 2021**

### **SOB1011: BUSINESS COMMUNICATION**

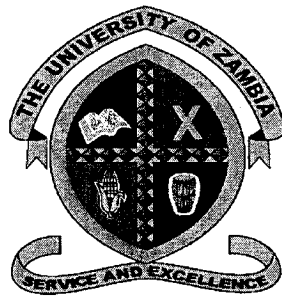
#### **Instructions Format**

1. Time Allowed: 3 hours
2. There are three (3) sections in this paper. Sections A and B are compulsory
3. Pick two (2) questions from section C

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## Section A (compulsory) Answer all question

1. The following are types of communication except?
  - a. Written
  - b. Oral
  - c. Non verbal
  - d. All of the above
  - e. None of the above
2. Which of the following is not a barrier to communication?
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5. What is the importance of rehearsal before your final presentation?
  - a. Know your visual aids
  - b. Evaluate your delivery
  - c. Time your self
  - d. All the above
  - e. None of the above
6. Mention three (3) things to consider when selection a medium of communication  
(3marks)
7. Mention any three (2) advantages and three (2) disadvantages of oral communication  
(4marks)
8. Note taking is import for retrieval of information and aiding the learning process. Outline four (4) principles of note taking.  
(4 marks)
9. Clearly, explain the seven (7) Cs for effective communication  
(14 marks)
10. Explain and illustrate the five communication networks  
(10 marks)



# THE UNIVERSITY OF ZAMBIA

## GRADUATE SCHOOL OF BUSINESS

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### SOB1012 – Introduction to Information Management & Technology

### **2022 FINAL EXAM**

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Date : Friday 28<sup>th</sup> January 2022  
Venue : SPORTS HALL  
Time : 09:00 – 12:00 hrs.  
Duration : 3 Hours 00 Minutes

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#### **Instructions**

1. This exam has six (6) questions.
2. Answer any **five (5)** questions.
3. Write your answers on the answer sheet provided.

**QUESTION 1 [20 marks]**

1. Discuss and explain the four steps of the machine cycle . [2 marks]
2. What are the relationships among data, bit, and byte? [2 mark]
3. Draw a table showing the order and value of the following metrics: peta, mega, tera, giga. [5 marks]
4. Discuss the types of general purpose computer systems [4 marks]
5. Discuss and define synchronization. [4 marks]
6. Discuss the differences among Networks, the Internet, and World Wide Web. [3 marks]

**QUESTION 2 [20 marks]**

1. Discuss and explain the differences between storage and memory [4 marks]
2. Define bugs, patches, and updates; explain the value of installing updates. [4 marks]
3. Discuss the differences between a free coca cola and open source software [6 marks]
4. Describe the functions of system software and operating systems, and provide examples of operating systems for PCs, larger computer systems, and mobile devices. [6 marks]

**QUESTION 3 [20 marks]**

Jason wants to produce a slide show of the types of wild birds that are seen in his hometown.

He has a laptop computer.

1. Identify the type of software he should use to produce the slide show [1 mark]
2. Identify the devices he could use to input text and sound to his slide show. [2 marks]
3. Identify two devices he could use to output sound from his slide show. [2 marks]
4. Jason wants to show his slides to a large group of bird watchers at a meeting.

Identify **two** additional hardware devices he could use to do this. **[2marks]**

5. He uses a digital camera with wireless capability to take photographs of the birds. He wants to print the photographs.

Identify **two** types of wireless connection he could use to send the images from his camera to a wireless printer. **[2marks]**

6. Jason has downloaded the images from his camera onto his laptop.
- a. Give **two** reasons why he should also make backup copies of the images. **[2marks]**

He has decided to use removable storage media for the backup

- b. Identify one type of optical storage media that he could use. **[1 mark]**
- c. Identify one removable device that uses flash memory **[1 mark]**
- d. Explain why a flash memory device may be more appropriate for the backup than optical storage media. **[4 marks]**
7. Jason often emails photographs to fellow members of the local bird watching club
- a. Identify **one** feature of email software that will enable him to include a photograph in an email. **[1 mark]**
- b. Explain the differences between email and instant messaging **[2 marks]**

#### QUESTION 4 [20 marks]

1. Differentiate a DBMS and a database? **[3 marks]**
2. Draw a hierarchy of the following giving examples of each: characters, database, records, fields, files? **[6 marks]**
3. Why is it better to store data in multiple related tables, rather than one big table? **[2 marks]**
4. Why is a database a necessary component of a computer system? Why is the selection of DBMS software so important to organizations? **[2 marks]**

5. Consider the following scenario about laptops and answer the questions below.

The following rules describe the scenario:

- A customer has a name, address and bank details.
- A customer owns one or more Internet Routers. Each router is identified by a serial number, assigned and has a make and model.
- A device is registered to an Internet Service Provider (ISP). The ISP has a name.
- A customer with several routers can have these registered with one provider or they might use several providers.
- A customer makes data sessions on their device. A data session has a start time, date and duration as well as the destination address.
- Each month a customer receives a bill. A bill is issued by the ISP. A bill contains a list of all data sessions made on a device in said month.
- A customer will only receive one bill from each provider in each month (so if they have several devices with the same provider, the data sessions will be combined onto one bill).

Draw an Entity-Relationship Diagram for the Internet Router scenario using a suitable notation. Your answer must show the entities and their relationships.

**[7 marks]**

#### **QUESTION 5 [20 marks]**

1. What is an Information System? **[2 marks]**
2. Give examples and characteristics of each type of Information System **[6 marks]**
3. Discuss why it is critical for information systems to be linked to the business objectives of an organization. **[4 marks]**
4. Give **six (6)** examples of functional areas of business organizations where information systems are used **[6 marks]**
5. Highlight two (2) benefits of e-commerce **[2 marks]**

**QUESTION 6 [20 marks]**

Keziah shares a home network with other members of her family. The home network is connected to the internet.

2. State the hardware device that is necessary to connect the network to the internet.  
**[1 marks]**
3. The family uses a range of devices to access the home network. State one piece of information that identifies a device connected to the network **[1 marks]**
4. Keziah connects her laptop to the network wirelessly.
  - a. Give two advantages of using a wireless rather than a wired connection to connect her laptop to the network. **[2 marks]**
  - b. Give two disadvantages of using a wireless rather than a wired connection to connect her laptop to the network. **[2 marks]**
  - c. Keziah would like to use her laptop to play video games. She has been advised that having a large amount of RAM would enhance her gaming experience.

Explain why having a large amount of RAM would enhance Farihaa's gaming experience. **[4 marks]**

- d. Keziah would like to watch videos on her laptop using an online service. She can choose to download or stream the videos.

Discuss the advantages and disadvantages of downloading rather than streaming videos **[6 marks]**

- e. The amount of information available online is growing on a daily basis. Discuss the positive and negative impacts of the increased availability of information online. **[4 marks]**

**- END -**





# **THE UNIVERSITY OF ZAMBIA**

## **Graduate School of Business**

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### **SOB1012 – Introduction to Information Management & Technology**

### **2020 FINAL EXAM**

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Date : Friday 18<sup>th</sup> September 2020  
Venue : SPORTS HALL  
Time : 09:00 – 12:00 hrs.  
Duration : 3 Hours

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#### **Instructions**

1. This exam has **six (6)** questions.
2. Answer any **five (5)** questions.
3. Write **ALL** your answers on the answer sheet provided.

**QUESTION 1 [20 marks]**

1. Shores is a supermarket chain. Each supermarket has several Electronic Point of Sale (EPOS) terminals.
- a) Most products have a barcode on the packaging.
- State the name of the device used to input data automatically from the barcode. **[1 mark]**
  - Explain two benefits to the supermarket of using the barcode. **[4 marks]**
  - Some products, such as loose items of fruit, do not have barcodes. The operator uses a screen to select an image of the product and also input the quantity bought. State the type of screen used. **[1 mark]**
- b) Some of the EPOS terminals are self-service. At these terminals customers input the barcode data themselves. Explain one benefit to the supermarket of having self-service terminals. **[2 marks]**
- c) The EPOS terminals are connected to the central server of Shores. The data collected from sales is used as part of the stock control system. Complete the table, with the numbers 2–6, to give the correct order of steps in the stock control system. **[3 marks]**

Steps	Order
Barcode input	1
Current stock calculated	
Item identified	
Current stock compared to reorder level	
One item deducted from current stock	
Information sent to database	
Order placed for new stock	7

- d) Shores operates a loyalty card scheme. Customers join the scheme by registering their personal information with Shores. Shores has a legal requirement to ensure that stored personal information is accurate and up-to-date.
- i. Give three methods Shores can use to ensure that the personal information it stores is accurate and up-to-date **[3 marks]**
  - ii. State three other legal requirements that Shores must follow when storing the personal information of customers. **[3 marks]**
- e) State the difference between general-purpose and special-purpose computers. **[3 marks]**

## QUESTION 2 [20 marks]

1. Regina shares a home network with other members of her family. The home network is connected to the internet.
- a) State the hardware device that is necessary to connect the network to the internet. **[1 mark]**
  - b) The family uses a range of devices to access the home network.  
State one piece of information that identifies a device connected to the network. **[1 mark]**
  - c) Regina connects her laptop to the network wirelessly.
    - i. Give **two** advantages of using a wireless rather than a wired connection to connect her laptop to the network. **[2 marks]**
    - ii. Give two disadvantages of using a wireless rather than a wired connection to connect her laptop to the network. **[2 marks]**
    - iii. Regina would like to use her laptop to play video games. She has been advised that having a large amount of RAM would enhance her gaming experience. Explain why having a large amount of RAM would enhance Regina's gaming experience. **[4 marks]**
    - iv. Regina would like to watch videos on her laptop using an online service. She can choose to download or stream the videos. Discuss the advantages and disadvantages of downloading rather than streaming videos. **[6 marks]**

- v. The amount of information available online is growing on a daily basis. Discuss the positive and negative impacts of the increased availability of information online.

**[4 marks]**

### **QUESTION 3 [20 marks]**

Zedtoy is a toy retailer with stores around the Lusaka. Goods can be bought in store or from the company website.

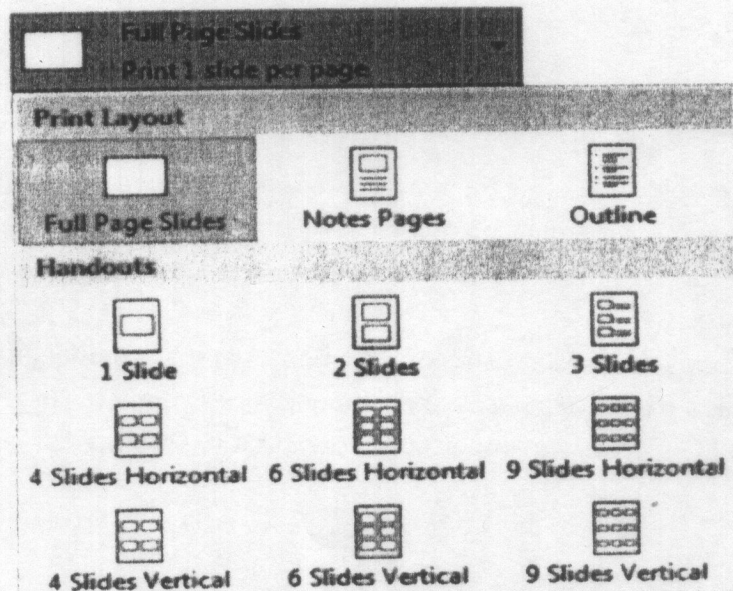
- a) Mandy visits her local store to buy toys for her son. One reason why she does this is that she is concerned about the security of her personal information when she buys goods online. State three other reasons why Mandy may prefer to buy goods in store rather than online **[3 marks]**
- b) Graham finds it difficult to travel to his local store. He prefers to buy toys for his daughter online
- ) State three other reasons why Graham may prefer to buy online rather than in his local store. **[3 marks]**
  - Explain two precautions Graham could take to reduce the risks of misuse of his personal information before buying goods online. **[4 marks]**
- c) Graham has a visual impairment. He has used system settings to enable narrator and speech recognition facilities. This makes his computer easier to use. Identify two other system settings that could be adjusted to make a computer easier to use for someone with a visual impairment. **[2 marks]**
- d) Graham takes regular breaks to reduce the likelihood of headaches. Identify two other health problems that might arise from using a computer for long periods of time. For each health problem, state how, **other than by taking regular breaks**, the problem can be reduced. **[4 marks]**
- e) What four components enable communication to take place? **[2 marks]**
- f) What are some negative effects of insufficient bandwidth for residential networks and professional business networks? **[2 marks]**

**QUESTION 4 [20 marks]**

1. Give 2 advantages and 2 disadvantages of cloud computing? [4 marks]
2. Highlight the differences between the **Internet** and **WWW**. [2 marks]
3. Give, citing examples, 4 kinds of wireless technologies that are used in a home or business setup. [4 kinds]
4. What is Digital Media? [2 marks]
5. Draw a table showing 3 examples of audio file formats including their descriptions. [6 marks]
6. Explain the difference between bit-mapped graphics and vector graphics. [2 marks]

**QUESTION 5 [20 marks]**

1. PRL Training provides courses for industry.
  - a) Trainers deliver the content for face-to-face courses using presentation software. Trainers and learners are given printouts to use during the courses.



The figure above shows a screenshot of the formats that could be used for the printouts. Identify the most appropriate formats to use for the trainers and the learners. For each format give a reason for your choice. **[4 marks]**

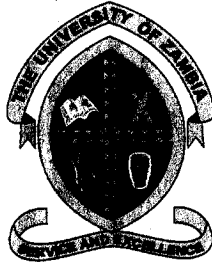
- b) PRL Training also delivers online courses.
- Identify two advantages to learners of courses delivered online rather than face-to-face **[2 marks]**
  - Issues may arise for learners using technology to access online courses. Identify two practical issues for learners. **[2 marks]**
  - Explain why the learning experience may be better on a course delivered face-to-face rather than online **[2 marks]**
- c) PRL Training produces videos to support the courses.  
The videos can be accessed via the internet. Arun is a learner on one of the courses. He would like to view a training video. He can choose to download or stream the video.
- Identify three advantages of downloading rather than streaming the video. **[3 marks]**
  - Identify three disadvantages of downloading rather than streaming the video. **[3 marks]**
- d) State the 3 kinds of relations types that exist in relation databases. **[3 marks]**
- e) What is a primary key? **[1 mark]**

### QUESTION 6 [20 marks]

- Identify the main components of an information system. What is a mission-critical system? **[4 marks]**
- How would you define the term "database"? How would you define the term "database management system"? **[3 marks]**
- Why is it better to store data in multiple related tables, rather than one big table? **[4 marks]**
- Describe the characteristics of a relational database model. **[4 marks]**
- Why is a database a necessary component of a computer system? Why is the selection of DBMS software so important to organizations? **[5 marks]**

- END -

*Graduate School of Business Examinations*



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**Final Examination**

**September 2021**

**SOB1051: PRINCIPLES OF MANAGEMENT**

**Instructions:**

Time Allowed: **3 hours**

There are Six (6) questions in this Examination Paper

SECTION A is Compulsory and Answer any two from SECTION B

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

*Graduate School of Business Examinations*



## **SECTION A (COMPULSORY- ANSWER BOTH QUESTIONS)**

### **QUESTION ONE**

Mariah is an incredible cake maker and would like to go into business for herself, but she needs some money to get started. Her two friends want to help her get her feet on the ground and start her business. They agree to invest in her business; however, they don't want to be involved in any part of the business. Mariah asks you for advice on how to organize her business.

- a) What business form would suit the needs of Audrey? (2marks)
- b) Give three (3) advantages and three (3) disadvantages of this business form. (12marks)
- c) What advantages would she enjoy if she operated as a licenced franchisee (6 marks) (25 Marks)

### **QUESTION TWO**

Production involves the step by step conversion of one form of material into another through chemical or mechanical process with a view to enhance the utility of the product or services. Explain five (5) advantages of job production giving examples.

(25Marks)

## **SECTION B (ANSWER ANY TWO QUESTIONS FROM THIS SECTION)**

### **QUESTION THREE**

Explain the 10 managerial roles identified by Henry Mintzberg. (25 Marks)

### **QUESTION FOUR**

Recruitment refers to the process of attracting, selecting, and appointing potential candidates to meet the organization's resource requirements. Explain three (3) sources of internal recruitment and give three (3) advantages of internal recruitment. (25 Marks)

### **QUESTION FIVE**

Scientific management was the first widespread promotion of rational processes to improve efficiency. Explain the role of scientific management in the modern era.

(25 Marks)



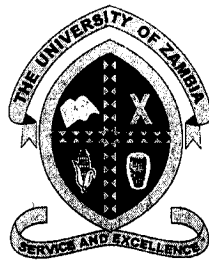
## **QUESTION SIX**

Write brief notes on the following:

- a) Benchmarking
- b) Quality Control
- c) SWOT analysis
- d) Marketing mix
- e) Authoritarian Leadership style

**(25 Marks)**

**END OF EXAMINATION**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Sessional Examination**

**JANUARY 2021**

**SOB 1052: BUSINESS ENVIRONMENT**

**Instructions**

Time Allowed: **3 hours**

There are **three sections** in this paper

You are required to answer **four (4)** questions

Please follow instructions given for each section

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A: ANSWER ALL QUESTIONS**

### **Question One (Compulsory)**

**1.1 Which of the following regions has the worst problems of poor urban living conditions?**

- a) Latin America
- b) South East Asia
- c) South Asia
- d) Sub-Saharan Africa

**1.2 In which of the following industries is most affected by government intervention.**

- a) Clothing and textiles
- b) Mining
- c) Car manufacturing
- d) Retailing

**1.3 Characteristics of culture include all but which one of the following?**

- a) Common language, terminology and norms of behaviour
- b) Preference for formal or informal communication
- c) Sustainability policies
- d) Written and unwritten of do's and don'ts for members of society

**1.4 How can we best define democratic elections?**

- a) By elections where there are multiple parties
- b) By free and fair elections
- c) By universal right to vote
- d) By right of citizens to stand for office

**1.5 The World Bank was created to fund:**

- a) Debt repayments of developing countries
- b) Infrastructure projects in developing countries
- c) Development projects and broad development programmes
- d) Loans to developed and developing countries

**1.6 How does the patent benefit its owner?**

- a) It gives exclusive right for a limited period to exploit the invention or license others to use it.
- b) It gives exclusive right to exploit the invention indefinitely.
- c) It gives exclusive right to generate profits (royalties) from the invention.
- d) It gives the inventor exclusive rights over his/her invention.

**1.7 Technological diffusion involves:**

- a) The spread of technology from developed to developing countries
- b) The spread of technology, including skills and know-how, from one country to another
- c) Adapting technology to new environments
- d) The import of high-technology products from advanced economies

**1.8 Environmental issues are the responsibility of:**

- a) Individuals, groups of volunteers, businesses
- b) Voluntary organizations, local and national governments
- c) Governments, businesses and consumers
- d) Consumers, businesses, and NGOs.

**1.9 Sustainable consumption implies:**

- a) Buying "green" products and services
- b) Saving energy and limiting CO2 emissions
- c) Making lifestyle decisions in keeping with environmental protection
- d) Promoting "green" lobbies and movements.

**1.10 From the viewpoint of the foreign investor, which of the following is a disadvantage associated with developing countries?**

- a) Poorly skilled workers
- b) Weak protection of intellectual property
- c) Small consumer markets
- d) Slow economic growth

**1.11 The taking over of a private firm by the host country government is**

- a) expropriation.
- b) confiscation.
- c) nationalization.
- d) domestication.

**1.12 An agreement whereby a person grants the other the rights to intangible property for a specified period for a return of royalty is**

- a) A. franchising.
- b) B. licensing.
- c) C. joint venture.
- d) D. strategic alliances.

**1.13 The productive activities privately owned as opposed to being owned by the state is**

- a) Market economy.
- b) Secular economy.
- c) Command economy.
- d) Mixed economy

**1.14 The law based on the tradition of a precedent and custom is**

- a) civil law.
- b) criminal law.
- c) common law.
- d) religious law.

**1.15 The transfer of the ownership of state property into the hands of the private individuals by the sale of state assets through auction is**

- a) Privatization.
- b) Liberalization.
- c) Globalization.
- d) Domestication.

**1.16 Terrorism in the host country is an example of**

- a) Systematic risk.
- b) Procedural risk.
- c) Distributive risk.
- d) Catastrophic risk.

**1.17 How can a marketer use the age distribution of the population in a market?**

- a) the marketer can use it to identify the purchasing power of the population in each country.
- b) the marketer can use it to identify the potential number of customers in various age groups.
- c) the marketer can use it to identify behavioural patterns within each age group.
- d) the marketer can use it to identify lifestyle patterns within various age groups.

**1.18 A(n) \_\_\_\_\_ is a form of regional economic integration in which there are no barriers to trade between member countries, a common external trade policy, and the free movement of the factors of production.**

- a) Free Trade Area
- b) Economic Union
- c) Customs Union
- d) Common Market

**1.19 Which of the following is not an element of culture?**

- a) Tax law.
- b) Language.
- c) Traditions.
- d) Art.

**1.20 Which of the following best defines international business?**

- a) It includes all economic flows between two or more countries.
- b) It includes all private economic flows between two or more countries.
- c) It includes all business transactions involving two or more countries.
- d) It includes all business transactions in countries other than your home country.

### Question Two (compulsory)

Given the following scenario of projected growth rates of population between 2000 and 2050;

Age structure →	0-14 years	15-59 years	60+ years	80+ years
World (%)	0.15	0.79	2.35	3.40
More developed countries (%)	-0.34	-0.42	1.07	2.23
Less developed countries (%)	0.21	1.01	2.87	4.22
Least developed countries (%)	1.26	2.38	3.37	4.07

Source: Worthington & Britton, 2006

- Explain any three (3) factors that may account for the differences in projections in the different categories. (15 marks)
- What is meant by an 'ageing' population? What are its implications on business? (3 marks)
- Other than Age, explain any other three characteristics of population. (12 marks)

**Total: 50 marks**

### Section B: Answer any five (5) parts from question three

#### Question Three

- Outline any four (4) features of the business environment
- Explain the functions of WTO
- Explain the functions of the World Bank
- Outline any five barriers to entry according to Porter's five forces
- Explain the term 'bargaining power of buyers' according to Porter's five forces.
- Describe any four (4) Features of mixed economic system
- Explain any two types of political risk
- Outline any four (4) Legal issues facing business in international business

**(5 marks X any 5 = 25 marks)**

### **Section C: Answer One question**

#### **Question Four**

- a) For a firm or industry of your choice, undertake a 'PESTLE' analysis indicating the likely major environmental influences to be faced by the firm/industry in the next five years. (15 marks)
- b) Explain any (3) benefits and (2) costs associated with Technology revolution. Give examples of modern technology in your answer. (10 marks)

**Total: 25 marks**

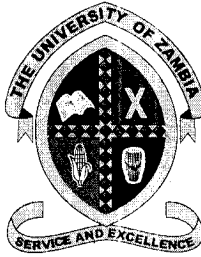
#### **Question Five**

- a) Conduct a SWOT analysis for a typical university. (8 marks)
- b) Describe the stages of a product life cycle. (17 marks)

**Total: 25 marks**

#### **Question Six**

To what extent do you agree with the proposition that the free market economy is the 'best' form of economic system? Do you have any reservations? (25 marks)



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

## **Undergraduate Deferred Examination**

**Friday 9<sup>th</sup> April 2021**

## **SOB 1052: BUSINESS ENVIRONMENT**

### **Instructions**

Time Allowed: **3 hours**

There are **six (6)** questions in this paper

You are required to answer **four (4)** questions

Section A is **compulsory**

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



**SECTION A**

Read the case below and answer the questions that follow

**Banda's Business Opportunity**

Banda runs his own enterprise somewhere in the outskirts of Livingstone. He manages a group of people with disabilities who make puppets in a traditional style, mainly selling to tourists through local shops, and pays them a basic salary as well as a profit share. The puppets are all made to Banda's own designs, and are quite different to the standard items in most tourist stores. His quirky designs and their popularity with shoppers have come to the attention of Chilufya, who runs a relatively large factory producing puppets and other tourist-friendly wares. Chilufya approaches Banda to suggest that he buy his enterprise, including his designs, and that Syed and his employees all come and work at Chilufya's factory. He is offering a lot of money, and Banda doesn't know whether he wants to maintain his independence or go for the security offered by a lump cash sum and guaranteed employment. He thinks a SWOT analysis of his current situation can help him consider the decision:

**Question One**

- a) Looking at the case study above, help Banda with his SWOT analysis. (16 marks)
- b) Outline any three (3) reasons why it is important for Banda to constantly monitor the business environment. (9 marks)

**Question Two**

Conduct a PESTLE analysis of any industry of your choice (25 marks)

**Total: 50 marks**

**Section B: Answer any two questions****Question Three**

Outline the cultural elements of society and explain how these elements may affect businesses. (25 marks)

**Question Four**

Describe the mixed economic system. Explain why governments would find it more desirable compared to capitalist or socialist economic systems? (25 marks)

**Question Five**

Explain any four (4) different entry modes in international business. Outline any two (2) disadvantages of the entry modes discussed. (25 marks)

**Question Six**

Given a college or university, Conduct a micro (or task) environment analysis. (25 marks)



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

## **Undergraduate Sessional Examination**

**January 2022**

### **SOB 1052: BUSINESS ENVIRONMENT**

#### **Instructions**

Time Allowed: **3 hours**

There are **six (6)** questions in this paper

You are required to answer **four (4)** questions

Section A and B are **compulsory**

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: ANSWER QUESTIONS ONE & TWO

### Question One a

(18 marks)

1. Which of the following is not a feature of Business environment
  - a) Interrelated Elements
  - b) Dynamics
  - c) Complexity
  - d) Continuous
2. Marketing intermediaries are categorized under..... Environment.
  - a) External
  - b) Macro
  - c) Micro
  - d) Remote
3. Value system followed by the management of a firm as certain influence on its..... environment.
  - a) Internal
  - b) External
  - c) Macro
  - d) None of the above
4. Micro environment is also known as \_\_\_\_\_.
  - a) Direct.
  - b) Indirect.
  - c) Same.
  - d) Fine.
5. Identification of opportunities to get first more advantage is one of the importance of business environment
  - a) True
  - b) False
6. Awareness of and compliance with the attitudes of society can help an organization avoid problems associated with a bad ethical reputation.
  - a) True
  - b) False
7. There are three major types of competitors discussed in Porter's Five-Forces model: existing, potential, and indirect.
  - a) True
  - b) False

8. The higher the entry barriers, the more intense is competition in an industry.
  - a) True
  - b) False
9. Exchange rates can influence the profitability of a firm in foreign countries.
  - a) True
  - b) False
10. Fiscal policy concerns which of the following:
  - a) Exchange rates
  - b) Public spending and taxation policies
  - c) Interest rates
  - d) The consumer price index
11. \_\_\_\_\_ plays the watch dog in order to ensure that both function in public interest and within the boundaries of constitution.
  - a) Legislature.
  - b) Executive.
  - c) Judiciary.
  - d) None of the above.
12. SOEs stands for.....
  - a. Single owned enterprises
  - b. State owned enterprises
  - c. Society owned enterprises
  - d. None of these
13. Ageing of the population is caused by:
  - a) low birth rates and increasing life expectancy
  - b) high death rates
  - c) immigration of relatively young workers from other countries
  - d) high fertility rates
14. Among the following, the best definition of technology is:
  - a) Human knowledge about products and services and the ways they are made and delivered
  - b) Knowledge about computers, electronics, and information systems
  - c) Knowledge about computers, electronics, and information systems as well as the equipment and systems themselves
  - d) All equipment that is used to create products and services

15. The influence of potential competitors on industry competition is determined primarily by:
- a) Buyer power
  - b) Supplier power
  - c) Strength of entry barriers
  - d) Strength of exit barriers
16. Technological advance does not:
- a) Allow firms to bring new goods and services to the market.
  - b) Make it possible to freeze competitors out of the market place.
  - c) Increase productivity.
  - d) Guarantee that business will be successful.
17. In which political system does one person or a small group of people hold absolute power?
- a) Liberal democratic systems.
  - b) Authoritarian systems.
  - c) Theocratic systems.
  - d) Federal systems
18. Entry barriers include.....
- a) Capital requirements
  - b) Monopoly
  - c) Requirement of investment
  - d) All the above
  - e) None of the above
19. Intellectual property is defined as:
- a) Property in technology
  - b) Rights over products of the human intellect such as patents and copyrights
  - c) Rights over technology transfer
  - d) Patent rights
20. "Environmental degradation" refers to environmental change caused by:
- a) Businesses and their actions
  - b) Human activity
  - c) Actions by government
  - d) Factory emissions

**Question One b: fill in the blanks**

**(10 marks)**

21. .... refers to the sum total of all individuals, institutions & other forces that are outside the control of business enterprise but that may directly affect its performance.
22. .... is a statement which derives the role that an organization plays in a society
23. .... refers to negative and unfavourable external factors that are likely to create hurdles for a firm.
24. .... refers to a system where all resources and economic activity is under state control
25. .... means the integration of various economies of the world leading towards emergence of a cohesive global economy.
26. The elimination of all trade barriers among member states and charging a common external tariff is an economic integration known as
27. .... is an economic system based on the principle of free enterprise.
28. Demand for chitenge outfits may be high in Nigeria, where as it is almost nil in France.  
"Which feature of business environment is highlighted by this statement? .....
29. A system of shared beliefs and norms by a group is known as .....
30. The ability to drive down prices and demand for quality service is referred to as:  
.....

**Question Two**

This scenario gives population projections for Malawi and the Netherlands. The current population of Malawi is **19,918,522**, and according to current projections, Malawi's population is expected to surpass 50 million people by 2058 and reach 66.21 million by the end of the century. In comparison, the current population of Netherlands is **17,192,772** and according to current projections, the Netherlands population is expected to grow until 2034, when it will reach its peak of 17.5 million people. The population will begin to decline and will end the century with about 16.78 million people

- a) Explain any three (3) factors that may account for the differences in projections for the two countries. (15 marks)
- b) What is meant by an 'ageing' population? What are its implications on business? (5 marks)

**Total: 50 marks**

**Section B: Answer any five (5) parts from question three**

**Question Three**

- a) Outline any four (4) costs of globalization.
- b) Explain the features of democracy.
- c) Explain the features of totalitarian (authoritarian)
- d) Outline three (3) sources of political risk
- e) Explain two (2) characteristics of population
- f) Explain the functions of WTO
- g) Outline any four (4) threats to the natural environment.
- h) Describe any four (4) Features of mixed economic system

**(5 marks X any 5 = 25 marks)**

**Section C: Answer any one (1) question**

**Question Four**

Describe the mixed economic system. Explain why governments would find it more desirable compared to capitalist or socialist economic systems? (25 marks)

**Question Five**

Use Porter's five forces model to analyse the competitiveness of the book selling industry. (25 marks)

**Question Six**

- a) Explain any three (3) benefits and any two (2) costs of technology. (10 marks)
- b) Describe any five (5) elements of the internal environment and explain how they can have a positive effect on business operations. (15 marks)

**Total: 25 marks**



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**  
**2021/2022 ACADEMIC YEAR**  
**JULY 2021 COHORT-FINAL EXAMINATION**  
**SOB 1115: MICROECONOMIC THEORY**  
**JANUARY 27, 2022: 14:00-17:00 [3 HOURS]**

**MARKS: 100**

**INSTRUCTIONS:**

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1. Check that you have the correct examination paper in front of you.
2. There are Eight (8) Questions in this paper. Section A is **COMPULSORY** and has Two (2) Questions. Section B has Six (6) Questions choose any Two Questions.
3. Ensure that you answer Four (4) Questions in total. Two from Section A and Two from Section B. All questions carry equal marks.
4. All questions must be answered in the answer booklet **PROVIDED** only.
5. Begin each question on a new page

## SECTION A [COMPULSORY]

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### Question One [25 Marks]

1. Which of the following statements is false?
  - a) An economic model is a theory based on key variables and expressed in formal terms.
  - b) An economic model is tested by seeing how accurate its predictions are.
  - c) Testing economic models is rarely tricky.
  - d) The words 'ceteris paribus' mean other things remaining the same.
2. Which of the following statements is true?
  - a) The problem of scarcity would disappear if the world's population grew to ensure more labour was available.
  - b) A producer who uses no more resources than it needs must display productive efficiency.
  - c) Despite the problem of scarcity, people do not always want producers to use the most efficient production methods.
  - d) The world's economies were as integrated 50 years ago as they are today
3. Which of the following is not required for a country to be producing at a point on its production possibility frontier?
  - a) Full employment of labour.
  - b) All producers using the latest technology.
  - c) Stable prices.
  - d) All producers having productive efficiency.
4. Which of the following statements is a positive statement?
  - a) Bankers' bonuses should be taxed.
  - b) The African Union ought to allow member countries in difficulty to stop using the dollar and use currencies of their own instead.
  - c) One of the largest industries in Zambia is the financial services industry.
  - d) The Zambian government ought to split up some of the largest Zambian banks to promote more competition in the banking industry.

5. Which of the following statements is true?
- a) The production possibility frontier is straight because some resources are better suited to making some products than others.
  - b) The production possibility frontier is steeper at the left end than the right because some resources are better suited to making some products than others.
  - c) The production possibility frontier is steeper at the right end than the left because some resources are better suited to making some products than others.
  - d) The production possibility passes the point which represents total wants in the economy.
6. Which of the following predictions is not made by the supply and demand model?
- a) If there is excess demand, the price will rise.
  - b) If there is excess supply, the price will fall.
  - c) A market which is out of equilibrium will always move rapidly to the equilibrium.
  - d) If there is no excess demand or excess supply, the market will be in equilibrium.
7. Suppose there is excess supply in a market and the price decreases. Which of the following combinations of events will occur?
- a) There will be a fall in quantity supplied and a rise in demand.
  - b) There will be a fall in supply and a rise in quantity demanded.
  - c) There will be a fall in quantity supplied and a rise in quantity demanded.
  - d) There will be a fall in supply and a rise in demand.
8. A consumer product has a Price Elasticity of Supply of 0.1. Which of the following factors would not help to explain this?
- a) The producers are close to full capacity.
  - b) One or more of the key intermediate products needed to make the product are themselves items with an inelastic supply.
  - c) Consumers need very little time to respond fully to price changes.
  - d) One type of labour used by the producers may be in inelastic supply

9. Which of the following statements is true?
- a) When an economy grows, firms would prefer to be making inferior goods rather than making normal goods.
  - b) If a firm notices that the price of a substitute for its product has fallen, it would prefer the Cross-price elasticity of demand between the products to be far from zero rather than close to zero.
  - c) If a firm's costs increase and it has to increase the price of its output, it would prefer demand to be price inelastic rather than price elastic.
  - d) If a firm notices that the price of a complement for its product has risen, it would prefer the Cross-price elasticity of demand between the products to be far from zero rather than close to zero.
10. Which of the following statements about the market demand curve for a product is false?
- a) The market demand curve represents the individual demand curves of all consumers added together.
  - b) The market demand curve may shift if there is a change in the behaviour of some households which consume the product.
  - c) The market demand curve may shift if there is change in the price of the product.
  - d) The market demand curve may shift if there is a change in the number of consumers who buy the product.
11. A consumer finds that for product A, the price is K5 and the consumer's marginal utility is 100 utils, while for product B, the price is K10 and the consumer's marginal utility is 160 utils. Which of the following statements is true?
- a) The consumer is maximizing utility from A and B.
  - b) The consumer would gain more utility from A and B by consuming less A and more B.
  - c) The consumer would gain more utility from A and B by consuming more A and less B.
  - d) The consumer could only gain more utility from A and B by consuming more of both products.

12. To see whether a firm is making an economic profit, which of the following should be deducted from its revenue?
- a) Its explicit costs only.
  - b) Its explicit costs plus depreciation.
  - c) Its explicit costs and its implicit costs.
  - d) Its implicit costs only.
13. Which of the following statements about barriers to entry is false?
- a) They may include a fear of sunk costs.
  - b) They may include a lack of know-how.
  - c) They help to make a market contestable.
  - d) They may include the well-known brand names of existing firms.
14. In the short run, which of the following always gets smaller as output increases?
- a) Average variable cost.
  - b) Short-run average cost.
  - c) Average fixed cost.
  - d) Short-run marginal cost.
15. An isoquant relates the quantity of inputs a firm uses to the quantity of output it can produce. In drawing an isoquant, which of the following assumptions about the firm is made?
- a) It is a profit-maximizing firm.
  - b) It is an economically efficient firm.
  - c) It is a technically efficient firm.
  - d) It has at least one fixed input.
16. On a graph for a perfect competitor, which of the following curves coincide?
- a) The demand curve and the average revenue curve, but not the marginal revenue curve.
  - b) The demand curve and marginal revenue curve, but not the average revenue curve.
  - c) The demand curve, average revenue curve, and marginal revenue curve.
  - d) The average revenue curve and the marginal revenue curve, but not the demand curve.

17. A profit-maximizing perfect competitor faces a price of  $K10$  and is in long-run equilibrium with an output of 100 per day. At an output of 100, which of the following will have a value of  $k10$ ?
- a) Only its LMC.
  - b) Only its LMC and its LAC.
  - c) Its LMC, LAC, SMC, and SAC.
  - d) Only its LMC and its SMC.
18. Suppose a profit-maximizing monopolist faces no threats from possible new entrants to its industry. Which of the following statements about the firm's long-run equilibrium is false?
- a) The firm may make a profit indefinitely.
  - b) The firm's SMC curve and its LMC curve will both intersect its MR curve at its chosen output.
  - c) The firm's SAC curve will intersect its LAC curve at its chosen output.
  - d) If the firm suddenly started to worry about the prospect of new entrants, it might decide to reduce its price.
19. A profit-maximizing monopolist finds that if it remains open, the best output is 50 a week, but at this output it would make a loss. Under what circumstances should it shut down?
- a) If AR at this output is below SAC.
  - b) If MR at this output is below SAC.
  - c) If AR at this output is below AVC.
  - d) If MR at this output is below AVC.
20. For which of the following does the kinked-demand curve theory not offer an explanation
- a) Why an oligopolist might find that its sales fell greatly if it raised its price.
  - b) Why an oligopolist might find that its sales increased little if it cut its price.
  - c) Why an oligopolist's price is what it is.
  - d) Why an oligopolist might not change its price, even if the prices of variable inputs changed.

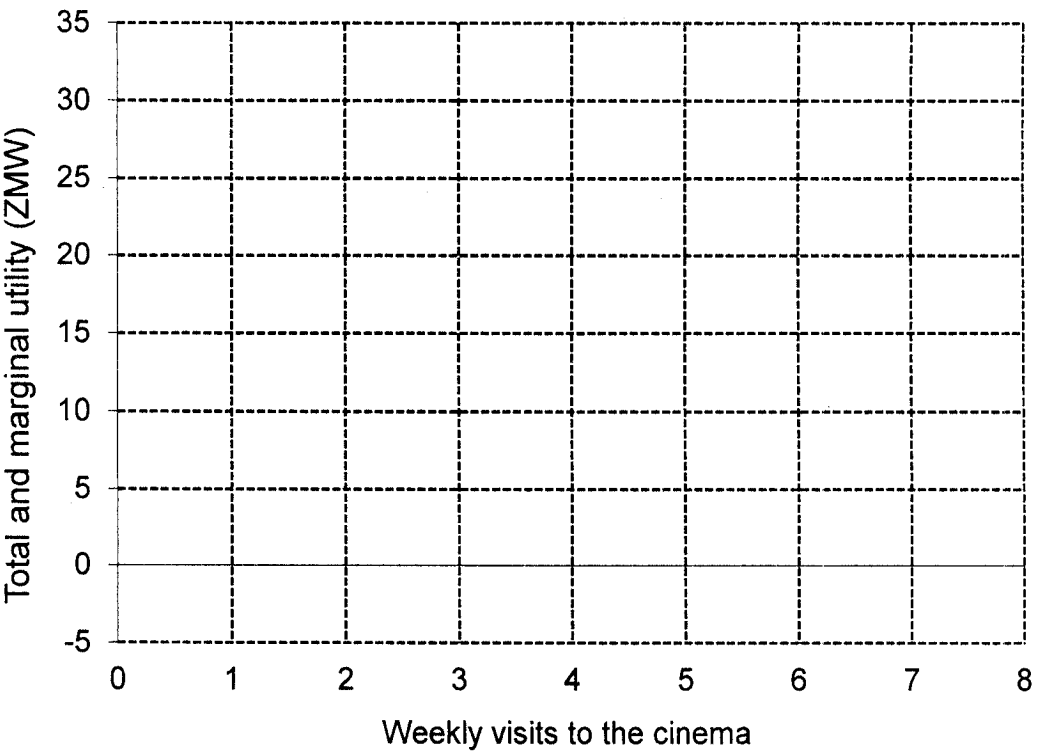
21. Which of the following circumstances makes it harder for oligopolists to start engaging in cooperation without agreement?
- a) If their industry has very few firms.
  - b) If entry to their industry is particularly hard.
  - c) If the firms produce strongly differentiated products.
  - d) If demand and input prices are fairly stable.
22. Suppose a country uses its resources in a Pareto-efficient way. Which of the following statements is true?
- a) There might be inefficiency in production.
  - b) There might be inefficiency in consumption.
  - c) There might be considerable inequality of income among the country's citizens.
  - d) It might be possible to make one person better off without making another person worse off.
23. Which of the following statements is the correct definition of market failure?
- a) It means that a market economy will fail to secure economic efficiency.
  - b) It means that a market economy will fail to secure productive efficiency.
  - c) It means that a market economy will fail to secure Pareto-efficiency.
  - d) It means that a market economy will fail to secure technical efficiency.
24. Suppose both the production and the consumption of a product generate externalities. At which of the following outputs would output be at the Pareto-efficient level.
- a) Where marginal private cost equals marginal private benefit.
  - b) Where marginal private cost equals marginal social benefit.
  - c) Where marginal social cost equals marginal social benefit.
  - d) Where marginal social cost equals marginal private benefit.
25. Two workers, X and Y, are roofers working on the same wage for the same firm. X earns more economic rent than Y. Which of the following statements is false?
- a) X has lower transfer earnings than Y.
  - b) If the wage for roofers generally fell enough to persuade Y to take up another occupation, X might continue to be a roofer.
  - c) Because Y is earning some economic rent, the firm which hires Y could reduce the wage and Y would continue to work for that firm.
  - d) If we add up X's economic rent and transfer earnings, we would get the same figure we would get if we add up Y's economic rent and transfer earnings.

Question Two [25 Marks]

The following table shows the total utility that Nchimunya derives from visits to the cinema per week.

<i>Visits</i>	0	1	2	3	4	5	6	7	8
<i>TU (K)</i>	0	12	20	25	28	30	31	31	29
<i>MU (K)</i>	-	—	—	—	—	—	—	—	—

- (a) Copy the table and fill in the figures for marginal utility. [4 marks]
- (b) At which rate is total utility increasing: a constant rate, a decreasing rate, or an increasing rate? [3 Marks]
- (c) Draw a graph of the figures for total and marginal utility on the following diagram. [4 Marks]



- (d) How many visits to the cinema will she make per week if the price of a ticket is:
  - (i) ZMW 4.00 [2 marks]
  - (ii) ZMW 2.50 [2 marks]



(e) Define the following terms

- |      |                                      |           |
|------|--------------------------------------|-----------|
| i.   | The marginal value product of labour | [2 Marks] |
| ii.  | Utility                              | [2 Marks] |
| iii. | Demand                               | [2 Marks] |
| iv.  | Scarcity of resources                | [2 Marks] |
| v.   | Law of diminishing returns           | [2 marks] |

## SECTION B [CHOOSE ANY TWO QUESTIONS]

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### Question Three [25 Marks]

- A) Evaluate the following statements and classify them as either being **true**, **false**, or **uncertain**.
- i. Those workers with high wages which compensate them for unpleasant aspects of their jobs are most likely to enjoy substantial economic rent. [1 Mark]
  - ii. Toyota Zambia, Microsoft corporation and ZESCO all possess some features of firms under perfect competition. [1 Mark]
  - iii. In the presence of externalities Pareto-efficiency is attained where marginal private cost equals marginal social benefit or where marginal social cost equals marginal private benefit. [1 Mark]
  - iv. Under special considerations the Ministry of Justice could be considered as a pure monopoly because it is the only one in the whole Zambia. [1 Mark]
  - v. The market demand curve may shift if there is a change in the wage rate for this type of labour. [1 Mark]
  - vi. In a monopsonistic labour market where a minimum wage has already increased the wage, a rise in the minimum wage always reduces the quantity of labour that is demanded. [1 Mark]
  - vii. As regards ability to influence price All in one Barbershop and hair salon is analogous to Puma filling station. [1 Mark]
  - viii. It is fair for students to meet the full cost of higher education because they get all the benefits. [1 Mark]
  - ix. The difference between Airtel money booth and East Park Mall as regards market structure is the number of entry barriers. [1 Mark]
  - x. The more monopolistic the firm's demand curve and marginal revenue curve, the more the higher marginal cost curve reduces output, reducing demand for both factors. [1 Mark]
- B) Makaiko Mphande sought to engage in mobile money by setting a mobile money Booth at one of the markets in Lusaka. Makaiko then proceeded to check on the available space for his booth at Mtendere, Kalingalinga, Bauleni, Matero and Chawama market. He noticed that there were a lot of booths for all the three mobile networks in all these markets. In order to understand the type of market he was entering into he asked four

Graduate School of Business Students doing Microeconomics and the following where their views:

**Ntaulo:** *According to me mobile money booths fall under perfect competition because there are so many booths and so many people who have access to these booths. Makaiko if you don't want to miss it take my advice this is definitely a type of perfect competitive market.*

**Mbale:** *Even though mobile money market has so many booths and so many people accessing these booths this could be consider an oligopoly market structure. This is because it is only characterised by few firms that is Airtel, MTN and Zamtel. Without wasting your time Makaiko your mobile money booth is definitely going to be in an oligopolistic market structure.*

**Mpata:** *Mobile money cannot be perfect competition nor oligopoly but monopolistic competition because Airtel, MTN and Zamtel have a degree of control over the charges (which is the price) that they charge. For instance, there used to be no charges when transferring between networks but suddenly all these service providers are charging. Therefore, this is monopolistic competition. My friend your booth will be in a monopolistic competition market.*

**Sokoto:** *All of you guys are wrong! This is a monopoly because this is so linked to telecommunication companies. Nowonder they are referred to as mobile money because a mobile money account either is Airtel, MTN or Zamtel and these are telecommunications. My friend Makaiko this business of a mobile money booth you want to do falls under monopoly.*

- i. Which of the four views do you agree with? Explain briefly. [2 Marks]
- ii. List the characteristics of this market based on your response in a) [5 Marks]
- iii. Does this market structure have a kinked demand curve or not? Explain. [2 Marks]
- iv. Is this market better than perfect competition in terms of pricing? [1 Marks]
- v. Graphically illustrate and briefly explain a firm making normal profits under this market. Label your graph clearly and appropriately. [5 Marks]

#### Question Four [25 Marks]

Tinyada ndi Mkhuto Farms produces only two goods, cloths, and food according to the following table.

Output choice	Cloths output	Food output
A	120	0
B	120	32
C	88	24
D	80	28
E	40	12
F	0	40

- i. Define the PPF [2 Marks]. Answer
- ii. Illustrate the information in the table above on the PPF. Be sure to label your PPF correctly and put Cloths on the vertical axis while food should be on the horizontal axis. [3 Marks]
- iii. Which of these output choices are pareto efficient? [2 Marks]
- iv. Which of these output choices are pareto inefficient? [1 Mark]
- v. What is the opportunity cost of food in terms of cloths of shifting production from A to B? [2 Marks]
- vi. What is the opportunity cost of cloths in terms of food of shifting production from D to E? [2 Marks]
- vii. Compare the opportunity cost of shifting output choice from A to C and from C to A. [3 Marks]
- viii. Illustrate on the diagram you drew in part (ii) what would happen to the PPF if there was a drought at Tinyada ndi Mkhuto Farms which affected cotton production and crops used for food? [3 Marks]
- ix. List the seven (7) concepts that can be illustrated on the PPF. [7 Marks]

### Question Five [25 Marks]

A) Fill in the following table [10 marks]

<b>Firm</b>	<b>Market structure</b>	<b>Number of firms</b>	<b>Entry barriers</b>	<b>Ability to influence price</b>
Puma filling station				
Airtel Money booth				
Microsoft corporation				
Décor shop				
Ministry of Justice				
UTH				
Toyota Zambia				
ZESCO				
All in one Salon and Barbershop				
East Park Mall				

B) Describe the concepts of constant and increasing opportunity costs. Use graphs to show the two. (7 marks)

C) Define consumer and producer surplus. Show the two in one graph. (8 marks)

### Question Six [25 Marks]

- (a) Exactly few days after the grand opening, Pick and Pay branch at East Park Mall recorded their volume sales as total product and this is presented in the table below.

Units of Labour	Marginal Product	Average Product	Total Product
1	-	5	5
2			18
3			36
4			56
5			75
6			90
7			98
8			104
9			108
10			110
11			110
12			108
13			104

- As a microeconomics student you have been requested to help the sales manager compute the marginal product and average product by filling in the missing details in the table above. Since the sales manager has no economic background be sure to state the formula for marginal product and average product for him to follow your work as he will be presenting to the branch manager. [10 marks]
- Further to aid the manager in the preparation of his PowerPoint slides he requests that you help him with the graphs. Help the manager by graphing total product curve on its own graph and both marginal and average product curves on one graph. Label the axes of your two graphs appropriately [5 marks].
- Kindly comment on the total product curve, the marginal and average product curves and prescribe to the manager the recommended output level? [5 Marks]
- Based on your graphs of marginal and average product curves after how many units of labour does the marginal and average product curves intersect? What does this intersection point signify? [5 Marks]

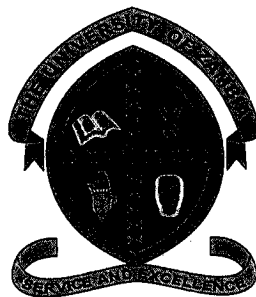
### **Question Seven [25 Marks]**

- (a) Outline and briefly explain three (3) properties of indifference curves. [6 marks]
- (b) Define the following:
  - i. Law of diminishing marginal utility, [2 Marks]
  - ii. Giffen good, [2 Marks]
  - iii. Revenue, [2 Marks]
  - iv. Isocost line [2 Marks]
  - v. Decreasing returns to scale. [2 marks]
- (c) Using an equation and a graph, explain the equilibrium position for a consumer, [4 marks]
- (d) What is the difference between economic profit and accounting profit? [3 marks]
- (e) Explain the importance of economic models in Microeconomics. [2 Marks]

### **Question Eight [25 Marks]**

- a) Briefly explain the backward bending labour supply curve. Use a graph to illustrate your answer. [10 marks]
- b) Using a graph depict and explain a loss-making firm under perfect competition. [5 marks]
- c) Jane has her budget constraint tangent to her indifference curve when she is consuming 4 units of movies and 3 units of Aquasavana. Her uncle who has found a job in Zurich, Switzerland, gives all his properties to Jane including all the monies. Explain and illustrate using a diagram what would happen to Jane's optimal combination of movies and Aquasavana. Assume movies and Aquasavana are normal goods. [5 Marks]
- d) List five determinants of demand, [5 marks]

Sup



**THE UNIVERSITY OF ZAMBIA  
THE GRADUATE SCHOOL OF BUSINESS  
UNDERGRADUATE FINAL EXAMINATION**

**23<sup>rd</sup> September, 2020**

**SOB 1115 : Microeconomics Theory**

**INSTRUCTIONS TO CANDIDATES:**

1. Answer ALL questions in SECTION A and Any TWO (2) questions in SECTION B.
2. DURATION: 3 Hours.
3. Scientific Calculators are ALLOWED.



## SECTION A (Compulsory)

### QUESTION ONE (15 Marks)

State and justify whether the following characteristics, implications and outcomes of markets are mostly associated with **perfect competition**, **monopoly** or **both**.

- (a) The price is equal to the marginal revenue and average revenue.
- (b) Consumers have imperfect information about the cost of production or price.
- (c) There is limited consumer surplus due to the firm(s) price-setting behaviour.
- (d) The commodity being produced is unique and has no perfect substitutes.
- (e) The firm(s) only earn break-even level of profits in the long-run.
- (f) It is extremely easy to enter and exit the market.
- (g) The market demand curve facing the firm(s) is downward sloping.
- (h) The firm(s) take the price as given by the market.
- (i) The firm(s) can earn supernormal profits in the short-run.
- (j) Optimization occurs where the price is equal to the marginal cost
- (k) The marginal cost schedule is u-shaped and cuts the average cost at its minimum.
- (l) The average revenue schedule is equal to the demand curve.
- (m) There is a split between the average revenue and the marginal revenue.
- (n) The product being produced is not heterogeneous.
- (o) There is a large number of consumers in the market.

### QUESTION TWO (15 Marks)

- (a) Consider the demand and supply of cinematic movies at Manda hall shopping mall. Draw the market demand and supply situation depicting equilibrium. What would happen to the equilibrium situation after the following changes? Please explain using clearly labelled diagrams.
- (i) There is an increase in ZESCO load-shedding to the cinema. (2 marks)
  - (ii) There is a sudden outbreak of COVID-19 in Zambia. (2 marks)
  - (iii) A new cinema is opened at a nearby shopping mall. (2 marks)
  - (iv) The cinema increases the price of popcorns and drinks. (2 marks)
  - (v) The government implements tax cuts on Lusaka residents. (2 marks)
- (b) Explain the major differences between the cardinal and ordinal approaches to consumer theory. How does a consumer optimize under each theory? (5 marks)

## SECTION B (Answer in Two (2) Questions)

### QUESTION THREE (15 Marks)

Consider the table below and answer the questions which follow:

Number of Workers	Total Product	Average Product	Marginal Product
1	10		
2	25		
3	45		
4	55		
5	60		
6	65		
7	63		
8	58		

- (a) Without using the numbers above, draw the Total product curve and explain its stages. (6 marks)
- (b) Complete the table by filling in the figures for Average Product and Marginal Product. (2 marks)
- (c) What is the Maximum number of workers the firms should employ in order to produce where there are increasing returns? (2 marks)
- (d) What is the Maximum number of workers the firms should employ in order to produce where there are decreasing returns? (2 marks)
- (e) Explain why firms are expected to produce where there are decreasing returns to scale in the real world. (3 marks)

### QUESTION FOUR (15 Marks)

- (a) Draw the TFC, TVC and TC on the same graph. (4 Marks)
- (a) Draw the ATC, AVC and MC on the same graph. (4 Marks)
- (b) Show that the gap between the ATC and AVC is equal to the AFC. (3 Marks)
- (c) Consider the table below and copy it into your answer booklet.

Output	TFC	TVC	TC	MC	AFC	AVC	ATC
0	300						
1		80					
2			400				
3		130					
4			500				

Fill in the table with values for Total Fixed cost (TFC), Total Variable Cost (TVC), Total Cost (TC), Marginal Cost (MC), Average Fixed Cost (AFC), Average Variable Cost (AVC) and Average Total Cost (ATC). (4 Marks)

**QUESTION FIVE (15 marks)**

- (a) Explain the difference between economies of scale and returns to scale. (5 marks)
- (b) Price elasticity is defined as the responsiveness of quality demanded to changes in the price of a commodity. Discuss the determinants of price elasticity. (5 marks)
- (c) Is it possible for a monopoly to make losses in the long-run? Draw a diagram depicting a monopoly making losses. ( 5 marks)

**END OF EXAMINATON**



# **UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

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**COURSE: SOB 1115: MICROECONOMICS THEORY**  
**FINAL EXAMINATION**

Date: 27-01-2021

TIME: 3 HOURS

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### **INSTRUCTIONS**

1. WRITE YOUR NAME AND COMPUTER NUMBER ON THE ANSWER SCRIPT.
  2. SECTION A AND B IS COMPULSORY.
  3. SECTION C: CHOOSE FOUR (4) QUESTIONS ONLY FROM THIS SECTION.
  4. SHOW ALL YOUR WORK WHERE NECESSARY.
-

**SECTION A: (20 marks).**

**TRUE OR FALSE STATEMENTS.**

**For each of the statements below, state whether they are true or false.**

1. The concept of demand gives only the direction and not the magnitude of relationship between price and quantity demanded.
2. Price elasticity of demand is synonymous to cross-price elasticity of demand.
3. A commodity which records no change in revenue after an increase in the price has inelastic demand
4. A commodity with a multiplicity of uses will have higher elasticity of demand on average
5. Indifference curves assume that the combinations of the goods on the same curve do not give the same level of satisfaction.
6. When analyzing the relationship between the costs curves, one can deduce that the Gap between the ATC and AVC is the AFC.
7. A perfectly competitive firm can still continue operating while making losses in the long run.
8. Oligopoly is a perfect market structure.
9. In marginal analysis, Marginal cost can also be referred to as the slope (calculus derivative) of the total cost curve
10. You can tell whether a product is elastic or inelastic by the proportion allocated to it on the individual's budget.

**SHORT DEFINITIONS**

**Give short, concise definitions for the following terms.**

- a) Derived demand
- b) Equi-marginal utility
- c) Marginal revenue product
- d) Opportunity cost
- e) Total society welfare
- f) Pareto efficiency
- g) Cross elasticity

- h) Inferior good
- i) Perfectly inelastic good
- j) Law of variable proportions

## **SECTION B. (20 MARKS)**

### **GRAPHICAL ILLUSTRATIONS.**

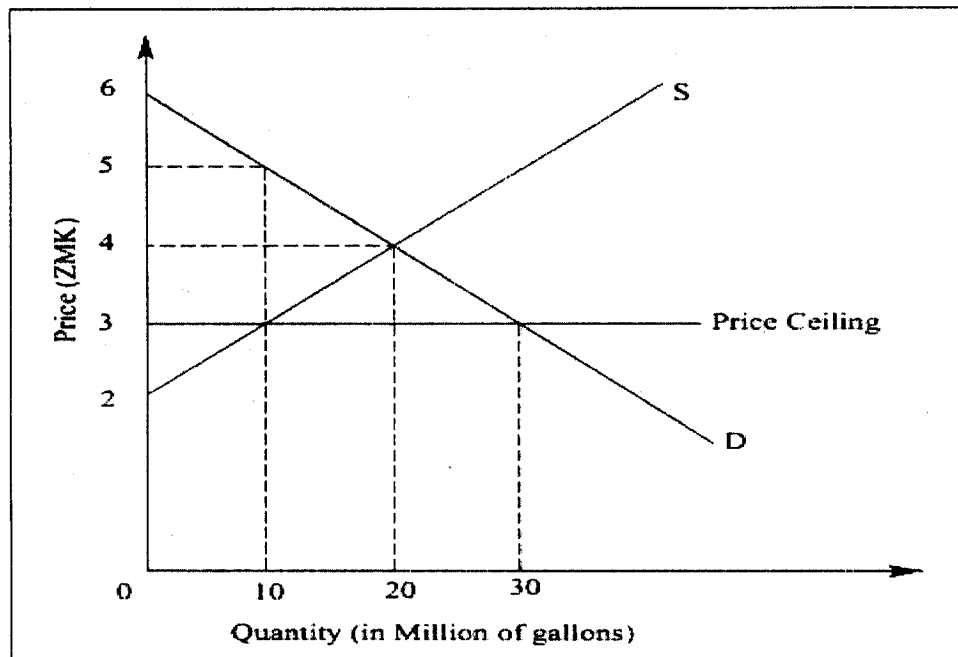
**For the questions in this section, you are required to demonstrate your understanding of economic models through the use of graphs.**

1. Show how an individual perfectly competitive firm is a price taker.
2. A perfectly competitive firm making supernormal profits in the short run.
3. Demonstrate your understanding of the difference that exists between a change in quantity demanded and a change in demand.
4. Show how a monopsony determines its optimal quantity of output to produce.
5. Draw an individual's supply curve for labor, to illustrate the tradeoff he makes as a result of a choice to opt for leisure time.
6. With the aid of suitable diagrams, explain how the following would affect the demand for maize in Zambia:
  - (a) Increase in the price of maize from k50 per bag to k70 per bag.
  - (b) Reduction in the price of fertilizer.
  - (c) Increase in the price of Cassava.
  - (d) News that consumption of maize increases the probability of getting cancer
7. Show the graph of indifference curves for perfect substitutes.

**SECTION C 40 MARKS. (EACH QUESTION ATTRACTS A TOTAL OF 10 MARKS)**

**QUESTION 1 (10 marks)**

The graph below shows the domestic Demand and supply of cooking oil in Million Zambian kwacha.



Given the information above, compute the:

- Total society welfare before the price ceiling was imposed.
- The shortage of cooking oil in million kwacha as a result of the price ceiling.
- Deadweight loss in the market.
- What would be the value of the new consumer surplus if the government imposed a price floor at k5?
- What is the economic term for this condition that arises from a price floor?

**QUESTION 2 (10 marks).**

Kunda is a renowned dress maker who owns a prestigious boutique at East park shopping mall. From the information given in the table below, what is her fixed cost?

For each level of output, calculate the

- a) Variable cost (VC).
- b) Average variable cost (AVC),

QUANTITY OF DRESSES	TOTAL COST (TC) in ZMK
0	K500
1	K540
2	K560
3	K570
4	K590
5	K620
6	K660
7	K720
8	K800
9	K920
10	K1100

- c) Average total cost (ATC), and
- d) Average fixed cost (AFC).
- e) Marginal cost (MC).
- f) What is the minimum-cost output?

**QUESTION 3 (10 marks).**

A Monopoly is considered to be an imperfect market structure.

- a) Give a reason why it is considered so.

Answer the following questions using a single graph.

- b) Show by shading the area for its profit in the short run.
- c) Label the new quantity level it would produce and the corresponding price if it were a firm in perfect competition.



- d) Shade and label the deadweight loss that results as DWL.
- e) Shade and label the consumer surplus that comes about as CS.

**QUESTION 4 (10 marks).**

Consider the following table and answer the questions which follow:

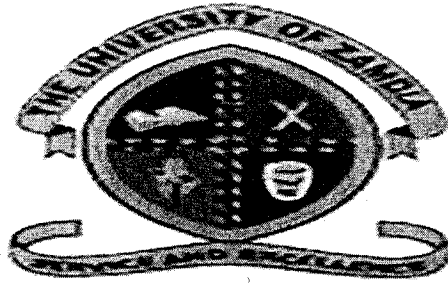
Units of good	Marginal Utility of X	Marginal Utility of Y
1	30	20
2	25	18
3	20	16
4	15	14
5	10	12
6	5	10
7	1	8

- (a) What is Utility?
- (b) State the units by which utility is measured according to the Cardinal theory.
- (c) Given that the price of good X is K5, the price of good Y is K2 and the income is K22.  
Use the Principle of Equi-marginal utility to find the optimal combinations of X and Y for this consumer

**QUESTION 5 (10 marks).**

- a) What is labor?
- b) Draw an accurate graph showing the 3 stages of the production that depict the relationship between the Total product, Average product and Marginal product.
- c) Which stage is considered optimal for production? Why?
- d) What criteria is used by firms to determine how many workers should be hired?
- e) Outline the 5 characteristics of trade unions.

**THE END.**



THE UNIVERSITY OF ZAMBIA

GRADUATE SCHOOL OF BUSINESS STUDIES

SOB2022: CORPORATE GOVERNANCE AND BUSINESS ETHICS

NOVEMBER 2021 FINAL EXAMINATION

TUESDAY, 9<sup>TH</sup> NOVEMBER 2021

TIME: 14:00 - 17:00

### INSTRUCTIONS TO CANDIDATES

1. This paper is divided into **TWO** sections:

**Section A:** Two (2) Compulsory Questions.

**Section B:** Two (2) Optional Questions. Attempt any one (1) question.

2. Enter your student number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.

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

4. 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.

5. Do not turn this paper until you are told to do so.

6. The total marks are **100**.

**Section A -- These TWO questions are compulsory, and MUST be attempted**

**QUESTION 1**

Zamselufu is a parastatal company that was established in the year 2015 by an Act of parliament. The company is owned by four municipal councils. The company is owned by four municipal councils. The Board of Directors are appointed by the Minister of Local Government while the Managing Director is appointed by the Republican President.

Among other things, Zamselufu is primarily mandated to provide quality water and electricity supply to residents of Chibombebombe. The company also sales bottled water called "Manzi ya moyo", it also supplies and installs generators.

In order to reach the cutomers, Zamselufu has put up branches dotted around Chibombebombe town. All branches in urban areas are on Wide Area Network (WAN) while those in the peri urban areas are on offline basis. The WAN is not reliable and whenever off, staff in the branches will have to switch to a manual system for continued operations. The cashiers in the branches would revert to issuing manual receipts as opposed to system generated. During system failure is not possible to confirm complaints logged-in by customers of confirm customer balances. Branches in peri urbans operates on offline basis and by end of day, Branch Managers would carry the day's transactions on a flash stick to update the database on the main server at the head office.

Due to high population in peri urban areas, long queues are observed at month ends when customers are settling their bills. Customers are turned away once the time is up to close the branch and referred to the following day. At times the branches would run out of receipt books and monies would not be collected.

The seven-member board of director all being Chartered Accountants, meets on quarterly basis to review financial, director's report and the risk and audit report. The CEO, who is also the board Chairperson sets the Board agendas and distributes Board papers in advance of meetings. From last quarter report, it was noted that the risk appetite for the board of directors was ambitious considering the company projects that were being undertaken and most of them were non-performing.

The Board has no separate audit committee but relies on the annual management letter from the external auditors to provide assurance that financial controls are operating effectively. The external auditors were appointed by the CEO many years previously.

The registers of attendance of meeting by board members for last year was as follows:

Board Member	Q1	Q2	Q3	Q4
Mr. Momo	x	√	x	√
Mr. Chadiba	x	x	x	√
Dr. Pzedi	x	√	√	√
Mr. Chezela	x	x	x	x
Prof. Wamusegede	x	x	x	√
Ms. Soche	√	√	x	x
Ms. Kuchekuche	√	√	√	x

The Board believes that the company's corporate governance could be improved by following the principles applicable to listed companies.

- (i) Define risk and provide **five (5)** relevant categories of risks. (12 marks)
- (ii) Identify and elaborate on the **five (5)** key step approach to risk management process. (15 marks)
- (iii) From the scenario, identify **four (4)** risks and recommend appropriate remedial measures. (8 marks)
- (iv) Recommend how Zamselufu board should be restructured to comply with the principles of good corporate governance. (15 marks)

[Total = 50 marks]

**QUESTION 2**

Zamnyama Plc is a public company specialized in beef processing operating in Southern Africa with its headquarters in Zambia. It has over 250 outlets across Zambia and enjoys favorable market share. Recently, the company has come under fierce attacks by the two customers of its alleged importation of beef that is preserved using toxic powder that is used in embalming dead human bodies. The Chief Executive Officer (CEO) called for an emergency meeting where it was noted that the general public did not know how the imported beef was preserved and that the two customers that had complained about the practice could be compensated quietly without letting the issue go to the public. The Finance Director who is a fellow member of Zambia Institute of Chartered Accountants echoed the need to achieve financial targets and emphasized the need to continue importing beef to scale up sales if financial targets were to be achieved.

The Legal Officer took advantage of the meeting and expressed worry of some accounting officers within Zamnyama that had a tendency of unduly disposing company information that was considered as classified. She also added that the forecast budget for the year 2022 had a number of mistakes and wondered how Trainee Accountant were entrusted with such a responsibility of preparing institutional budget. The Human Resource Director noted that the budget allocation for Finance department was over 45% and wondered the justification. The Director Finance defended the position by saying that the finance department were the custodians of money and needed a huge allocation notwithstanding non supportive budgetary activities.

The CEO in his closing remarks hoped that the above matters would be resolved soon and requested the Director Finance his in law to increase sitting allowances for the members of the meeting. The CEO warned the Legal Officer not to be concerned about financial affairs of the company as she was a lawyer and threatened to terminate her contract of employment if she continued probing the financial affairs of the company.

**Required:**

- (i) Identify and elaborate on the **five (5)** fundamental ethical principles as stipulated by International Federation of Accountants (IFAC). (5 marks)
- (ii) State the International Federation of Accountants (IFAC) fundamental principles that have been violated in the given scenario and justify why they have been violated. (10 marks)
- (iii) Identify and briefly explain the five (5) safeguards available to members of ZICA to encounter the ethical threats. (10 marks)

**[Total = 25 marks]**

**Section B – Attempt any ONE question from this section**

**QUESTION 3**

Distinguish the following and provide relevant examples:

- (i) Control environment and control activities; (5 marks)
- (ii) Japanese and Germany Model of corporate governance; (5 marks)
- (iii) Ethical relativism and ethical absolutism; (5 marks)
- (iv) Teleological and deontological theories in ethics. (5 marks)
- (v) American Accounting Association (AAA) Model and Tucker's 5 Question Model (5 marks)

**[Total = 25 marks]**

**QUESTION 4**

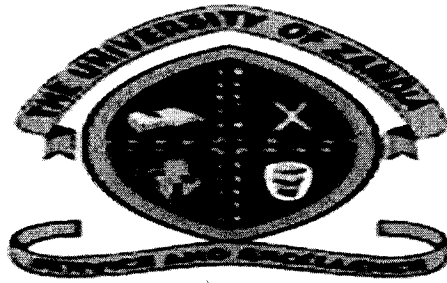
Agency theory highlights the need for directors to act in the interest of shareholders. The existence of two parties in agency theory requires us to focus on the nature and strength of the relationship between them. The central issue is the requirement for trust to exist between the two parties. This sense of trust can then be enhanced further through the existence of regulation that forces the board to ensure it is carrying out its duties as expected by shareholders. The root of the regulation is the legal requirement that: "the directors must act in the best interests of shareholders". This is a fiduciary obligation of the board of directors. Directors' role is similar to that of a trustee in a trust in that they are entrusted by the shareholders to run the company on their behalf. Directors are expected to demonstrate uncompromising loyalty to the shareholders and to exercise due diligence in making decisions.

**Required:**

Identify and elaborate on the **five (5)** fundamental duties of directors in the company.

**[Total = 25 marks]**

**END OF PAPER**



**THE UNIVERSITY OF ZAMBIA**

**GRADUATE SCHOOL OF BUSINESS STUDIES**

**SOB2022: CORPORATE GOVERNANCE AND BUSINESS ETHICS**

**SEPTEMBER 2021 FINAL EXAMINATION**

**TUESDAY, 7<sup>TH</sup> SEPTEMBER 2021**

**TIME: 14:00 - 17:00**

**INSTRUCTIONS TO CANDIDATES**

1. This paper is divided into **TWO** sections:

**Section A:** Two (2) Compulsory Questions.

**Section B:** Two (2) Optional Questions. Attempt any one (1) question.

2. Enter your student number on the front of the answer booklet. Your name must **NOT** appear anywhere on your answer booklet.
3. Do **NOT** write in pencil (except for graphs and diagrams).
4. 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.
5. Do not turn this paper until you are told to do so.
6. The total marks are **100**.

## **Section A – These TWO questions are compulsory, and MUST be attempted**

### **QUESTION 1**

#### **Background information**

Mulekutika University (MU), a public university was established by an Act of Parliament No. 66 of 1990. The first intake of students took place in March 1990. The motto of the University is “service and excellence” and has guided the development of the University since its inception. Over the years, the university has predominantly offered social science, natural science, and education courses. In 2015, MU board resolved to establish Chipantepante School of Business (CSB) with the aim of offering competitive business programmes at the University of Mulekutika. The School adopted flexible modes of learning such as fulltime, evening, 100% online, and blended and it offers a wide range of programmes from undergraduate, masters and PhDs.

#### **Sources and uses of funds**

MU is funded by a grant from government according to the number of students studying there and other resources the university generates by itself through student school fees, research and publishing. However, CSB is semi-autonomous and generates its own revenue from student school fees and research. The utilization of funds is predominantly paying staff, supporting academic research and buying school supplies.

#### **Staffing**

The CSB is headed by the Director and assisted by the Assistant Director and Assistant Registrar. The administration staff include the administration officers, accounts officers, personal assistants, receptionist and security guards. CSB has three teaching staff category, namely full-time qualified teaching staff who were seconded from MU, administration staff who have convinced the CSB Director to teach some of the undergraduate programmes and part-time lecturers recruited by CSB from the industry. The Director does not know most of the part-time lecturers and neither does he know who has just been recruited as there are no orientation sessions. The Director engages more with administration staff than the full-time teaching staff and recently, there was tension between the Director and the full-time teaching staff due to a lie made against the full-time teaching staff by the administration staff to the Director. In the absence of the Director and Assistant Director, the administration staff act on behalf of management. This situation has left the full-time teaching staff super frustrated.

#### **Operations**

Due to Covid-19 pandemic, CSB physical classes had to be abandoned and switched to e-platform called moodle which was not fully operational as there were some teething challenges by then and management did not see the need to work on it to operationalize it so as to make it functional. CSB uses moodle platform for e-learning, continuous assessment and examination. To access the platform, students must be fully paid up. Thus, due to this condition of fully paid up, most of the students are not on the platform. Consequently, students have engaged with course lecturers to use google meet and zoom platforms and by this way, so much grounds has been covered by the lecturers in terms of syllabus coverage.



Attempts have been made once by CSB management to orient the part-time lecturers on how to use moodle platform but due to busy schedule of part-time lecturers, very few have been trained thus limiting the use of the platform to a few teaching staff.

When the part-time lecturers teach using the unofficial online platforms, they use the links for claiming their hours taught. At the time when part-time lecturers meet physically with the students, students are told to sign the physical registers across all the session slots and these registers are used for claiming for hours taught.

Most of the key updates and announcements related to examination dates, commencements of classes, and timetables are made via an email distribution list where most of the staff are full-time and part-time lecturers mostly rely on the students to get the information.

The teaching staff set and mark examination without anyone reviewing the quality of the examination. Marking is done by individual teaching staff from the location of their choice. Once the papers are set, they are printed by the course lecturers at the location of their choice and lecturers have the option of bringing the papers to the examination venue on the day of the exam and or deposit the examination paper with the administration officer. When students write the examination, invigilators submit the examination scripts to the administration officer where individual lecturers collect their respective courses. Due to busy schedule of part-time lecturers, examination scripts stay two weeks in the administration officer's office before they could be collected by individual course lecturers. Once the results of the examination are ready, some lecturers enter the results on the moodle platform and also submit an excel file to the CSB. Data entry for examination results particularly for missing names on the platform and for those results submitted using excel files is done by administration staff on the platform. Of late, there have been complaints about missing students' results and no investigations have been launched so far to establish the causes.

#### **Required**

- (a) Define internal control and its objectives. (10 marks)
- (b) Use Committee of Sponsoring Organisations of the Treadway Commission (COSO) framework to identify the internal control weaknesses at CSB. (20 marks)
- (c) Identify the key risks in the internal controls at CSB and propose mitigation measures to address the identified risks. (10 marks)
- (d) Identify and elaborate the roles and milestones in governance of the four key actors in governance. (10 marks)

**[Total = 50 Marks]**

## **QUESTION 2**

In the recent past, there has been a growing trend with regards to questionable behaviors of senior leaders in the public spheres. Some scandals have had to do with corruption, obscene videos and pictures and sex. The arguments have been that such scandals as mentioned before have a lot to do with business industry, the profession, and personal ethical principles.

### **Required**

- (a) Define personal ethics and provide justifiable reasons for its relevance. (6 marks)
- (b) Elaborate the extent to which the mentioned scandals could be attributed to personal ethical principles, industry and profession. (9 marks)
- (c) Identify and briefly explain five (5) factors that could influence personal ethical principles (10 marks)

**[Total = 25 Marks]**

**Section B – Attempt any ONE question from this section**

**QUESTION 3**

Distinguish the following and provide relevant examples:

- i) Corporate social responsibility and corporate citizenship. (5 marks)
- ii) Stakeholder and shareholder (5 marks)
- iii) The Hampel report (1998) and King's Report (2009) (5 marks)
- iv) Code of ethics and code of conduct (5 marks)
- v) Self-interest and self-review threats to professional independence (5 marks)

**[Total = 25 marks]**

**QUESTION 4**

The Financial System in Zambia comprises mainly Banking, Insurance, Pensions and other Non-Banking Financial Institutions. Amongst all these, Insurance and Pension Houses act as the Institutional Investors in many business houses. At the Centre is the Lusaka Stock Exchange which facilitates trading of shares. This means that companies are able to raise capital for expanding their businesses as long as they comply with the listing rules of the Stock Exchange. For the Lusaka Stock Exchange like any other such Exchanges in the world, its main concern is Corporate Governance.

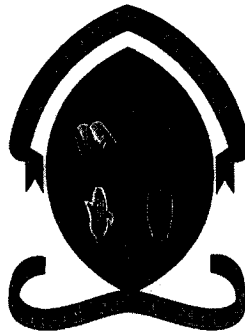
The significance issue is that shareholders may not fully participate in the management of their company. In many cases, shareholders appoint Directors to run the business on their behalf. This results in concerns such as Director -Shareholder relationships and Corporate Accountability among others.

**Required:**

- (i) Describe the agency problem in the context of director-shareholder relationship. (6 marks)
- (ii) Explain the stakeholder theory (5 marks)
- (iii) Identify and elaborate on the stakeholder conflicts and how they could be managed (5 marks)
- (iv) Discuss any three (3) International Corporate Governance Codes. (9 marks)

**[25 Marks]**

**END OF PAPER**



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**RESEARCH METHODS SOB 3004**

**JANUARY 25, 2022 09:00 – 12:00 HOURS OR 14:00 HOURS – 17:00 HOURS**

**TIME ALLOWED: 3 HOURS PLUS 5 MINUTES READING TIME**

**INSTRUCTIONS TO CANDIDATES**

1. Check that you have the correct examination paper in front of you
2. The paper consists of 6 questions. Answer ALL the questions in Section A and Answer ANY TWO questions in Section B .
3. All answers should be in an answer booklet given to you.
4. Write down the number of questions attempted on the cover page.
5. Begin each question on a new page.
6. There shall be no form of any communication between students during the examination. Any attempt to make such will lead to disqualification.

**DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO BY THE INVIGILATOR**

**SECTION A ANSWER ALL THE QUESTIONS IN THIS SECTION (60 marks)**

1. Write brief notes on the following concepts (20 marks)

- a. Survey 4 marks
- b. Case studies 4 marks
- c. Ethnographic studies 4 marks
- d. Likert scale 4 marks
- e. Inferential statistics and descriptive statistics 4 marks.

2. Based on the research title you presented in class. (20 marks) Write:

- a. statement of the problem 5 marks
- b. Research objectives 5 marks
- c. Either Conceptual or theoretical frame work 5 marks
- d. Data analysis 5 marks

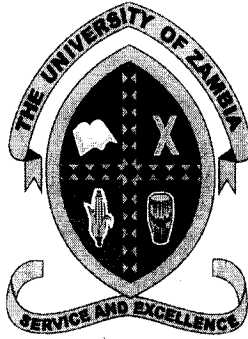
3. Literature review is one of the important chapters in a research project. Examine the steps to take when writing Literature Review. (20 marks)

**SECTION B CHOOSE ANY TWO QUESTIONS IN THIS SECTION (40 MARKS)**

4. The Lukonde, Joseph, Tamara, Ronnie, Khuza, Walubita, Michelle, Namunji, Solomon and Chileleko groups of Advanced Research Companies decide to employ you as a Research Co-Coordinator.

- a. Demonstrate how to cite- in text citation from a book using APA Referencing 5 marks
- b. Demonstrate how to write Reference from the journal - at the end -using Harvard Referencing style 5 marks
- c. Explain the concepts: mean, mode, ontology, sample size and hypothesis (10 marks)
- 5. Discuss the pros and cons of positivism and constructivism (20 marks)
- 6. Examine the steps to take when designing the Research Instrument Vis-à-vis; questionnaires and interview guides.

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**RESEARCH METHODS SOB 3004**  
**SUPPLEMENTARY/ DEFERRED EXAMINATION**

**NOVEMBER 2021 09:00 – 12:00 HOURS OR 14:00 HOURS – 17:00 HOURS**

**TIME ALLOWED: 3 HOURS PLUS 5 MINUTES READING TIME**

**INSTRUCTIONS TO CANDIDATES**

1. Check that you have the correct examination paper in front of you
2. The paper consists of 6 questions. Answer ALL the questions in Section A and Answer ANY TWO questions in Section B.
3. All answers should be in an answer booklet given to you.
4. Write down the number of questions attempted on the cover page.
5. Begin each question on a new page.
6. There shall be no form of any communication between students during the examination. Any attempt to make such will lead to disqualification.

**DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO BY THE INVIGILATOR**

**SECTION A ANSWER ALL THE QUESTIONS IN THIS SECTION (60 MARKS)**

1. Graduate School of Business conducts proposal presentations prior to the actual Research Project- data collection in the field. Explain the importance of a proposal 20 marks
2. Write brief notes on the following concepts
  - a. Ethnographic studies 5 marks
  - b. Case studies 5 marks
  - c. Survey 5 marks
  - d. Methods Vs. Methodology 5 marks
3. Based on the topic or research title you presented in class. Write
  - a. Statement of the problem 5 marks
  - b. Research Objectives 5 marks
  - c. Research Questions 5 marks
  - d. Data Analysis 5 marks

**SECTION B CHOOSE ANY TWO QUESTIONS IN THIS SECTION (40 MARKS)**

4. Examine the pros and cons of positivism and constructivism 20 marks
5. The Janita and Mwansa Advanced Research Consultant Company employs you as a Research Co- Coordinator.
  - a. Demonstrate how to write a theoretical framework. 5 marks
  - b. Demonstrate how to cite- in text citation using APA or Harvard Referencing style 5 marks
  - c. Explain the following concepts: hypothesis and Sample size (10 marks).
6. Prove the relevance of a Research Design in detail with crystal clear examples (20 marks)

**END OF EXAMINATION**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**Undergraduate Sessional Examination**

**Final exam**

**SOB 3011: STRATEGIC MANAGEMENT**

**SEPTEMBER 2021**

**Instructions**

Time Allowed: **3 hours**

There are **two sections** in this paper

Section A: **Compulsory**

Section B: Answer any **two** questions

You are required to answer **Four** questions

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**



## SECTION A: COMPULSORY

**Question One. Read the case carefully and answer the questions that follow**

### **American Rice Invades Japan**

The Japanese rice market, similar to many other Japanese markets, was closed to foreign competitors until 1993 to protect Japan's thousands of high-cost, low-output rice farmers. Rice cultivation is expensive in Japan because of the country's mountainous terrain, so Japanese consumers have always paid high prices for rice. Under foreign pressure, the Japanese government opened the market, and foreign competitors are now allowed to export to Japan 8 percent of its annual rice consumption. Despite the still-present hefty foreign tariff on rice - £1.32 per Kg - foreign rice sells for around £8 per lb bag while Japanese rice sells for nearly £11. With the recession affecting Japan, price-conscious consumers are turning to foreign rice, which has hurt domestic farmers.

In 2001, however, an alliance between organic rice grower Lundeborg family farms of California and the Nippon Restaurant Enterprise Co. found a new way to break into the Japanese rice market. Because there is no tariff on rice used in processed foods, Nippon takes the US organic rice and converts it into 'O-bento,' an organic hot boxed lunch packed with rice, vegetables, chicken, beef and salmon, all imported from the US. The new lunches, which cost about £2.30 compared to a Japanese rice bento that costs about £5, are sold at railway stations and other outlets throughout Japan. They are proving to be very popular and are creating a storm of protest from Japanese rice farmers, who have already been forced to leave 37 percent of their rice fields idle and grow less-profitable crops because of the entry of foreign rice growers. Japanese and foreign companies are increasingly forming alliances to find new ways to break into the high-price Japanese market, and, little by little, Japan's restrictive trade practices are being whittled away.

In summary, intense rivalry among competitors creates a task environment that is highly threatening and causes difficulty for managers trying to gain access to the resources an organization needs. Conversely, low rivalry results in a task environment where competitive pressures are more moderate and managers have greater opportunities to acquire the resources they need for their organizations to be effective. Source: Contemporary Management (2007)

**Answer question One based on the case above**

### **Question One**

- a) Identify and explain any three (3) forces in the environment that are affecting Japanese rice growers. (15 marks)

- b) Explain how the two companies, Lundeborg family farms of California and Nippon Restaurant Enterprise, benefited from their alliance (10 marks)
- c) Outline any three (3) disadvantages of alliances. (6 marks)

### **Question Two**

The strategic management process encompasses three phases-strategy formulation, implementation, and evaluation and control. Describe each stage. (19 marks)

**Total: 50 marks**

## **SECTION B: ANSWER ANY TWO (2) QUESTIONS**

### **Question Three**

Benchmarking is the process by which companies look at the “best” in the industry and try to imitate their styles and processes.

- a) Evaluate the rationale for benchmarking and explain any two (2) types of benchmarking. (15 marks)
- b) Explain the limitations of international benchmarking to the company. (4 marks)
- c) Outline any three (3) barriers to strategy implementation. (6 marks)

**Total: 25 marks**

### **Question Four**

- a) “In the ‘maturity stage’ of Product life cycle the market becomes saturated, price competition intensifies, and the rate of sales growth slows down. Suggest strategic choices in such a stage of the PLC.” (15 marks)
- b) According to Michael Porter’s five forces, ‘The threat of new entrants depends on the barriers to entry.’ Explain any five (5) factors that may act as barriers to entry for new firms. (10 marks)

**Total: 25 marks**

### **Question Five**

- a) Explain the strategic option that takes the organization away from its existing products and existing markets showing its main advantages and disadvantages and the appropriate methods for its implementation? (20 marks)
- b) Describe any two (2) methods for conflict resolutions managers can use. (5 marks)

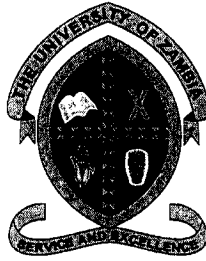
**Total: 25 marks**

### **Question Six**

The strategy implementation stage is essential because successful strategy formulation does not guarantee successful implementation.

- a) Explain any three (3) issues organisations have to deal with during strategy implementation. (15 marks)
- b) Explain how the BCG matrix can be used to assess the strategic implications for a firm. (10 marks)

**Total: 25 marks**



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

### **Undergraduate Sessional Examination**

**15<sup>th</sup> September 2020**

### **SOB 3011: STRATEGIC MANAGEMENT**

#### **Instructions**

Time Allowed: **3 hours**

There are **six (6)** questions in this paper

You are required to answer **four (4)** questions

Section A is **compulsory**

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: COMPULSORY

### **Madonna: still the reigning queen of pop?**

The music industry has always been the backdrop for one-hit wonders and brief careers. Pop stars who have remained at the top for decades are very few. Madonna is one such phenomenon; the question is, after over 25 years at the top, how much longer can it last? Described by Billboard Magazine as the smartest business woman in show business, Madonna, Louise Ciccone, began her music career in 1983 with the hit single 'Holiday' and in 2005–2006 once again enjoyed chart success for her album 'Confessions on a Dance Floor'. In the meantime she had consistent chart success with her singles and albums, multiple sell-out world tours, major roles in six films, picked up 18 music awards, been the style icon behind a range of products from Pepsi and Max Factor to the Gap and H&M, and became a worldwide best-selling children's author.

The foundation of Madonna's business success was her ability to sustain her reign as the 'queen of pop' since 1983. Along with many others, Phil Quattro, the President of Warner Brothers, has argued that 'she always manages to land on the cusp of what we call contemporary music, every established artist faces the dilemma of maintaining their importance and relevance. Madonna never fails to be relevant.' Madonna's chameleon-like ability to change persona, change her music genre with it and yet still achieve major record sales has been the hallmark of her success. Madonna's early poppy style was targeted at young 'wannabe' girls. The image that she portrayed through hits such as 'Holiday' and 'Lucky Star' in 1983 was picked up by Macy's, the US-based department store. It produced a range of Madonna lookalike clothes that mothers were happy to purchase for their daughters. One year later in 1984, Madonna then underwent her first image change and, in doing so, offered the first hint of the smart cookie behind the media image. In the video for her hit 'Material Girl', she deliberately mirrored the glamour based, sexual pussycat image of Marilyn Monroe whilst simultaneously mocking both the growing materialism of the late 1980s and the men fawning after her. Media analysts Sam and Diana Kirschner commented that with this kind of packaging, Madonna allowed the record companies to keep hold of a saleable 'Marilyn image' for a new cohort of fans, but also allowed her original fan base of now growing up wannabe girls to take the more critical message from the music.

The theme of courting controversy but staying marketable enough has been recurrent throughout her career, if not slightly toned down in later years. Madonna's subsequent image changes were more dramatic. First she took on the Catholic Church in her 1989 video 'Like a Prayer' where, as a red-dressed 'sinner', she kissed a black saint easily interpreted as a Jesus figure. Her image had become increasingly sexual whilst also holding on to a critical social theme: for example, her pointed illustration of white-only imagery in the Catholic Church. At this point in her career, Madonna took full control of her image in the \$60m (A48m; £33m) deal with Time-Warner that created her record company Maverick. In 1991, she published a coffee-table soft-porn book entitled *Sex* that exclusively featured pictures of herself in erotic poses. Her image and music also reflected this erotic theme.

In her 'Girlicious' tour, her singles 'Erotica' and 'Justify my Love' and her fly-on-the-wall movie 'In bed with Madonna' she played out scenes of sadomasochistic and lesbian fantasies. Although allegedly a period of her career she would rather forget, Madonna more than survived it. In fact, she gained a whole new demography of fans who not only respected her artistic courage, but also did not miss the fact that Madonna was consistent in her message: her sexuality was her own and not in need of a male gaze. She used the media's love affair with her, and the cause célèbre status gained from having MTV ban the video for 'Justify my Love', to promote the message that women's sexuality and freedom is just as important and acceptable as men's. Changing gear in 1996, Madonna finally took centre stage in the lead role in the film *Evita* that she had chased for over five years. She beat other heavyweight contenders for the role including Meryl Streep and Elaine Page, both with more acceptable pasts than Madonna. Yet she achieved the image transition from erotica to saint-like persona of Eva Peron and won critical acclaim to boot. Another vote of confidence from the 'establishment' came from Max Factor, who in 1999 signed her up to front its relaunch campaign that was crafted around a glamour theme.

Procter and Gamble (owners of the Max Factor make-up range) argued that they saw Madonna as 'the closest thing the 90s has to an old-style Hollywood star . . . she is a real woman'. With many pre-release leaks, Madonna's keenly awaited album 'Ray of Light' was released in 1998. Radio stations worldwide were desperate to get hold of the album being billed as her most successful musical voyage to date. In a smart move, Madonna had teamed up with techno pioneer William Orbit to write and produce the album. It was a huge success, taking Madonna into the super-trendy

techno sphere, not the natural environment for a pop star from the early 1980s. Madonna took up an 'earth mother/ spiritual' image and spawned a trend for all things Eastern in fashion and music. This phase may have produced more than just an image as it is the time in Madonna's life which locates the beginning of her continued faith in the Kabbalah tradition of Eastern spiritual worship. By 2001, her next persona was unveiled with the release of her album 'Music'. Here her style had moved on again to 'acid rock'. With her marriage to British movie director Guy Ritchie, the ultimate 'American Pie' had become a fully-fledged Brit babe earning the endearing nick name of 'Madge' in the British press.

By 2003 some commentators were suggesting that an interesting turn of events hinted that perhaps 'the cutting-edge' Madonna, 'the fearless', was starting to think about being part of rather than beating the establishment when she launched her new CheGuevara-inspired image. Instead of maximising the potential of this image in terms of its political and social symbolism during the Second Gulf War, in April 2003 she withdrew her militaristic image and video for the album 'American Life'. That action timed with the publication of her children's book *The English Roses*, based on the themes of compassion and friendship, which sparked questions in the press around the theme 'has Madonna gone soft?' By late 2003 she had wiped the military image from the West's collective memory with a glitzy high-profile ad campaign for the Gap, the clothing retailer in which she danced around accompanied by rapper Missy Elliot to a retrospective remix of her 1980s' track 'Get into the Groove'. Here Madonna was keeping the 'thirty-somethings', who remembered the track from first time around, happy. They could purchase jeans for themselves and their newly teenage daughters whilst also purchasing the re-released CD (on sale in store) for them to share and a copy of *The English Roses* (also promoted in the Gap stores) for perhaps the youngest member of the family. Late 2005 saw the release of the 'Confessions on a Dance Floor' album that was marketed as her comeback album after her lowest-selling 'American Life'. It and the linked tour achieved one of the highest-selling peaks of her career. The album broke a world record for solo-female artists when it debuted at number one in 41 countries. By February 2007 it had sold 8 million copies. Here Madonna focused on the high-selling principal of remix, choosing samples of the gay-iconic disco favourites of Abba and Giorgio Moroder to be at the heart of her symbolic reinvention of herself from artist to DJ. By cross-marketing the album image with Dolce & Gabbana in its men's fashion shows, Madonna cashed in on her regaining the dance-pop crown.

Will this, her latest album, stand the musical test of time? Who knows? But for now it seems to have more than met the moment.

### **Question One**

- a) Describe and explain the strategy being followed by Madonna in terms of the explanation of competitive strategy (10 marks)
- b) Why has she experienced sustained success over the past two decades? (10 marks)
- c) What might threaten the sustainability of her success? (10 marks)

### **Question Two**

You have just been appointed as a strategic manager, in your planning, you have decided to conduct an assessment of the external environment. Use any one of the tools to conduct an assessment of the external environment for any industry of your choice. (20 marks)

**Total: 50 marks**

## **SECTION B: ANSWER ANY TWO (2) QUESTIONS**

### **Question Three**

The strategic management process encompasses three distinct stages, strategy formulation and analysis, strategy implementation and strategy evaluation, monitoring and control.

Describe the activities involved in strategy evaluation, monitoring and control stage in detail. (25 marks)

### **Question Four**

Your organization has just introduced three additional products to its portfolio. You have decided to bench mark with best practices in terms of Organisational structures as you think that the current functional structure may no longer be appropriate. You have, therefore, decided to adopt the divisional structure.

- a) Outline any three (3) benefits of Benchmarking. (6 marks)
- b) Describe the divisional structure, and explain why you think it is appropriate. What could be the disadvantages of such a structure? (14 marks)
- c) Give five (5) reasons why strategies may fail. (5 marks)

**Total: 25 marks**

### **Question Five**

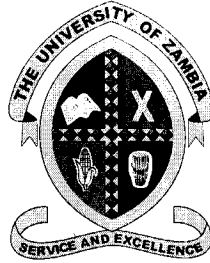
- a) Outline any three (3) factors a firm should take into account as it considers penetrating international markets. (9 marks)
- b) Describe any two (2) foreign market entry strategies a firm can use. Bring out their associated advantages and risks. (16 marks)

**Total: 25 marks**

### **Question Six**

Use Ansoff's growth strategy mix (intensive strategies) to explain the strategic options available to a business. Use practical examples. (25 marks)





# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

## **BSc - LTM Sessional Examination**

**Tuesday 26<sup>th</sup> January, 2021**

## **LTM 3132: INTERNATIONAL LOGISTICS AND PURCHASING POLICY**

### **INSTRUCTIONS TO CANDIDATES**

1. Time Allowed: **3 hours**
2. There are TWO (2) Sections in this paper.
3. Section A is Compulsory
4. Section B has SIX (6) questions, and you are required to any FIVE (5) questions
5. Write your Examination Number and NRCard Number on the answer booklet.
6. Use pencils and graph papers (provided) for drawings
7. Cell phones and programmable calculators are not allowed in the examination room.
8. Maximum marks obtainable are one hundred (100).
9. Each question carries equal marks

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: COMPULSORY

### QUESTION 1

You have been a new Purchasing Manager for VIL Earth Movers for only three months and currently are not happy with goods procured overseas. You have reviewed three items purchased from Singapore. There are no formal quotations and the items have been purchased through a US agent. They have purchased on an Ex Works basis (Incoterms). Matters have got worse last week when you discovered that Cobalt, supplied by a US company, is now three months overdue. You decided that you would conduct a 'spot check' and call unannounced on ABS Enterprises who supplies the Cobalt. They were embarrassed by having to disclose that they were purchasing the Cobalt from a Taiwanese Foundry and they, in turn, were sub-contracting the machining of the Cobalt to a Taiwanese sub-contractor! You insisted on a full set of quality control plans. These were delivered to your Office today – all in the Taiwanese language. You are still waiting for a definite delivery date. Meantime, your company is paying liquidated damages of 1% a week on a contract for an off-shore oil development company. Their contract is worth US 3 million Dollars. The Cobalt has a value of US150, 000 Dollars. There is no damages provision in the contract with ABS Enterprises. You have had a brief meeting with the Technical Director and Quality Manager of VIL Earth Movers. You were pleasantly surprised when both said that in principle they have nothing against buying from overseas. You have agreed to produce a report at tomorrow's Management Meeting, whose Agenda items include the following issues:

- Proposed actions to obtain delivery of the Cobalt
- The future use of Incoterms
- A procurement process for overseas buying
- How to select 'candidates' for overseas buying.

Task:

In respect of each facet of your report – state and discuss points you will need to address at the Management Meeting.

- |      |   |           |
|------|---|-----------|
| i.   | Proposed actions to obtain delivery of the Cobalt.      | (4 marks) |
| ii.  | The future use of Incoterms.                            | (4 marks) |
| iii. | A procurement process for overseas buying.              | (4 marks) |
| iv.  | How to select 'candidates' for overseas buying.         | (4 marks) |
| v.   | State four benefits of Supplier Performance Evaluation. | (4 marks) |

**Total: 20 marks**

**SECTION B Attempt any other FOUR (4) Questions in this Section**

**QUESTION 2**

- a) Outline the development of Logistics. (5 marks)
- b) Distinguish Purchasing and Procurement, highlighting THREE (3) different types of purchase. (7 marks)
- c) Describe FOUR (4) ways in which Logistics Management can support the management and reduction of costs. (8 marks)

**Total: 20 marks**

**QUESTION 3**

- a) Identify THREE (3) operating objectives of Logistics and Purchasing in Business. (6 marks)
- b) Explain THREE (3) reasons which lead to increased Reverse Logistics. (6 marks)
- c) Elaborate FOUR (4) functions of Warehousing. (8 marks)

**Total: 20 marks**

**QUESTION 4**

- a) State FOUR characteristics of the service. (4 marks)
- b) Mention FOUR (4) benefits of outsourcing. (4 marks)
- c) Contrast Logistics and Supply Chain Management. (4 marks)
- d) Explain FOUR (4) reasons advanced against Holding Inventories. (8 marks)

**Total: 20 marks**

**QUESTION 5**

- a) Discuss THREE (3) main modes of transportation in logistics. (12 marks)
- b) Describe the following Philosophies:
  - i. Inventory (2 marks)
  - ii. Lean Supply (3 marks)
  - iii. Materials Requirement Plan (MRP) (3 marks)

**Total: 20 marks**

### QUESTION 6

- a) Identify FOUR (4) strategies of managing different Logistics risks such as information risk. (4 marks)
  - b) Explain THREE (3) roles played by the Freight Forwarders in International Trade. (6 marks)
  - c) Describe FIVE (5) principles of Total Quality Management. (10 marks)
- Total: 20 marks**

### QUESTION 7

- a) Identify FOUR (4) benefits for procurement of the use of electronic systems to help the sourcing process. (4 marks)
  - b) Describe TWO (2) groups of INCOTERMS to be selected. (4 marks)
  - c) Explain the following Incoterms:
    - i. Ex-Works (3 marks)
    - ii. FOB (3 marks)
    - iii. DAT (3 marks)
    - iv. CIF (3 marks)
- Total: 20 marks**

**END OF EXAMINATION**



**The University of Zambia**  
Graduate School of Business  
Operations Research and Management (TLM 3510)  
January 2022 Final Exam

Instructions

Answer any 3 Question.

Show all Calculations

Time: 3 Hours

**Question 1.**

- A. The PC Tech company assembles and then tests two models of computers, Basic and XP. For the coming month, the company wants to decide how many of each model to assemble and then test. No computers are in inventory from the previous month, and because these models are going to be changed after this month, the company doesn't want to hold any inventory after this month. It believes the most it can sell this month are 600 Basics and 1200 XPs. Each Basic sells for \$300 and each XP sells for \$450. The cost of component parts for a Basic is \$150; for an XP it is \$225. Labour is required for assembly and testing. There are at most 10,000 assembly hours and 3000 testing hours available. Each labour hour for assembling costs \$11 and each labour hour for testing costs \$15. Each Basic requires five hours for assembling and one hour for testing, and each XP requires six hours for assembling and two hours for testing. PC Tech wants to know how many of each model it should produce (assemble and test) to maximize its net profit, but it cannot use more labour hours than are available, and it does not want to produce more than it can sell.
- i. Formulate the Linear model for this problem expressed in standard form (algebraic model) clearly showing the objective function and constraints
  - ii. Solve the model to maximise the net profit for PC Tech using Simplex LP method and provide a summary discussion of your recommendation for PC Tech company
- B. Write brief notes on each on LP problems
- i. Transportation Planning
  - ii. Assignment Problems
  - iii. Product Mix Problem
  - iv. Trim loss problems
  - v. Diet Problem

**Question 2.**

- A. You have been invited to lead in an "Operations Management" learning seminar where various young and emerging entrepreneurs are looking at learning operations management and sustainable supply chains. You have been tasked to prepare and lead a breakout session of facility location. Prepare and write a detailed discuss on following concepts:
- i. A justification on why companies go global
  - ii. What challenges companies face in going global
- B. You are a student of operations management seated at the Dee's having a drink after your first test in Operations Management when a discussion ensues on the table adjacent to you.
- i. The pundits have started discussing the evolution of production to operations management "production management evolving from the bespoke production to operations

management" as per their argument. Discuss the key milestones clearly articulating the contributions of each milestone in the evolution of production management.

- ii. After a few drinks, you all become friends and the pundits from a named private university ask you to discuss the concept of Forecasting in Operations Management. Despite the few drinks consumed, you recall you answering the question in the test. Discuss the concept of demand forecasting, clearly detailing forecasting definition and rules, relevance of forecasting, the general characteristics and elements of forecasting, the steps in forecasting process, and the choice process (choosing) of the forecasting model.
- iii. Resulting from your detailed and concise explanation the has surpassed the pundits expectations, the Pundits request for a change in venue to honour you with 3 Kegs. After the first Keg, excitement ensues and you remember to provide additional information on Forecasting. Provide a detail write up on the two broad types of forecasting methods clearly providing examples for each.

### Question 3.

- A. Sid Das Brick Distributors in Jamaica currently employs 1 worker whose job is to load bricks on outgoing company trucks. An average of 24 trucks per day, or 3 per hour, arrive at the loading platform, according to a Poisson distribution. The worker loads them at a rate of 4 trucks per hour, following approximately the exponential distribution in his service times.

Das believes that adding an additional brick loader will substantially improve the firm's productivity. He estimates that a 2-person crew loading each truck will double the loading rate ( $\mu$ ) from 4 trucks per hour to 8 trucks per hour. Analyze the effect on the queue of such a change, and compare the results to those achieved with one worker. What is the probability that there will be more than 3 trucks either being loaded or waiting?

- B. Truck drivers working for Sid Das earn an average of \$10 per hour. Brick loaders receive about \$6 per hour. Truck drivers waiting in the queue or at the loading platform are drawing a salary but are productively idle and unable to generate revenue during that time. What would be the hourly cost savings to the firm if it employed 2 loaders instead of 1?
- C. Sid Das is considering building a second platform or gate to speed the process of loading trucks. This system, he thinks, will be even more efficient than simply hiring another loader to help out on the first platform.

Assume that the worker at each platform will be able to load 4 trucks per hour each and that trucks will continue to arrive at the rate of 3 per hour. Then apply the appropriate equations to find the waiting line's new operating conditions. Is this new approach indeed speedier than hiring a second loader, as Das has considered in the per your solutions above?

**Question 4.**

- A. D's Gardens, a supplier of Storage Shed's wants to forecast storage sheds for January 2022 by using a 3-month moving average. Table actual shed sales is provided below.

Month (2021)	Actual Sales
Jan	10
Feb	12
Mar	13
Apr	16
May	19
Jun	23
Jul	26
Aug	30
Sep	28
Oct	18
Nov	16
Dec	14

- i. Use a 3 month Moving average to compute the forecast for sales for next January. Management has decided that they will allocate weights to the past 3 months with more weight given to the most recent month and least weight to least recent month. Table of weights is provided below.

Weight Applied	Period
3	Last month
2	Two months ago
1	Three Months ago

- ii. Using a 3-month weighted moving average, compute the forecast of sales for the next January using the information provided.
- iii. Provide a report to management based on the two results in A and B and provide advice to management on the forecasting
- B. Sharp, Inc. a company that markets painless hypodermic needles in hospitals, would like to reduce its inventory cost by determining the optimal number of hypodermic needles to obtain per order.
- i. Given an annual demand of 1,000 units, order start-up cost of \$10 per order, and holding cost of \$0.50 per unit per year, calculate the optimal number of units per order?
- ii. Given a 250-day working year at Sharp, Inc. a company, calculate the number of orders (N) to be made per year and expected time between the orders (T)

**Question 5.**

- A. Discuss the following in clearly detailing objective and useful concepts for each.

- i. Office Layout
- ii. Retail Layout
- iii. Warehouse Layout
- iv. Fixed-position Layout
- v. Process-oriented Layout
- vi. Work Cell Layout
- vii. Product-oriented layout

- B. Guzani Chibe Inc. specialises in producing and supplying Green Energy Solar Fans. would like to evaluate their labour and multifactor productivity with its new fan production system installed at the Mazabuka factory to support decision process of whether or not to install in all factories. The Mazabuka factory has factory 4 staff on an 8 hour shift per day (and payroll costs for K640 per day) and overhead of K400 per day. John Phiri process and completes 8 geysers per day. The new computerised system will allow to the processing of 14 fans per day. While staff costs and work hours remain constant, the total overheads with the computerised system implemented increase to K800 per day.

Calculate the Labour and Multifactor productivity on the old and new system and write a report to management

**Question 6.**

- A. John Phiri and Daughters currently maintains factories in Mazabuka and Mukushi to supply specialised Green Energy Solar Geysers to retailers of Geysers in Kapri-Mposhi and Kabwe. The transportation and production costs per unit, factory supply capacity, and retailer demand capacity are provided in the table below.

	Kabwe	Kapiri-Mposhi	Factory Capacity
<b>Existing Factories</b>			
<b>Mazabuka</b>	K14	K11	600
<b>Mukushi</b>	K9	K12	900
<b>Retailer Demand</b>	500	1000	1500

Retailers in Kapri-Mposhi and Kabwe are requesting for an addition 500 Geysers as a result of an anticipated increased electricity bills and increased load management of electricity. John Phiri and Daughters are deciding on opening a third factory in Lusaka to meet the demand.

	Kabwe	Kapiri-Mposhi	Factory Capacity
<b>Proposed Site (Factories)</b>			
<b>Lusaka</b>	K9	K10	500
<b>New Retailer Demand</b>	300	200	500

- Using the Northwest Corner Method, find the initial solution to the John and Daughters transportation costs with the inclusion of Lusaka as a new factory based on the increased demand
  - Using the stepping-stone method, test the initial solution and provide an improved transportation table for John Phiri and Daughters
- B. A restaurant chain purchases ingredients from 4 different food suppliers. The company wants to construct a new central distribution centre to process and package the ingredients before shipping them to their various restaurants. The suppliers transport ingredient items in 40-foot truck trailers, each with a capacity of 38 000 pounds. The location coordinates of the four suppliers and the three potential sites are as shown below

<u>Potential Sites</u>			<u>Suppliers</u>			
Site	X	Y	A	B	C	D
1	360	180	X 200	100	250	500
2	420	450	Y 200	500	600	300
3	250	400	Wt 75	105	135	60

Use the load distance method to determine the appropriate site for the location of the new distribution centre



## Formula

### Multiple server

$$P_0 = \frac{1}{\left[ \sum_{n=0}^{M-1} \frac{1}{n!} \left( \frac{\lambda}{\mu} \right)^n \right] + \frac{1}{M!} \left( \frac{\lambda}{\mu} \right)^M \frac{M\mu}{M\mu - \lambda}} \quad \text{for } M\mu > \lambda$$

$$L_s = \frac{\lambda\mu(\lambda/\mu)^M}{(M-1)!(M\mu - \lambda)^2} P_0 + \frac{\lambda}{\mu}$$

$$W_s = \frac{\mu(\lambda/\mu)^M}{(M-1)!(M\mu - \lambda)^2} P_0 + \frac{1}{\mu} = \frac{L_s}{\lambda}$$

$$L_q = L_s - \frac{\lambda}{\mu}$$

$$L_q = L_s - \frac{\lambda}{\mu}$$

$$W_q = W_s - \frac{1}{\mu} = \frac{L_q}{\lambda}$$

### Single Server

$L_s =$	$L_q =$	$P_0 =$
$= \frac{\lambda}{\mu - \lambda}$	$= \frac{\lambda^2}{\mu(\mu - \lambda)}$	$= 1 - \frac{\lambda}{\mu}$
$W_s =$	$W_q =$	$P_{n \geq k} =$
$= \frac{1}{\mu - \lambda}$	$= \frac{\lambda}{\mu(\mu - \lambda)} = \frac{L_q}{\lambda}$	$= \left[ \frac{\lambda}{\mu} \right]^{k+1}$
	$\rho =$	
	$= \frac{\lambda}{\mu}$	

## Reference

- Albright, et al., (2011)  
 Heizer, et al., (2017)  
 Gupta and Hira (2019)



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**UNDERGRADUATE SESSIONAL EXAMINATIONS**  
**OPERATIONS MANAGEMENT – TLM3510**

**DATE: 05 FEBRUARY 2021**

**DURATION: 3 HOURS**

**INSTRUCTIONS**

- Answer **ANY TWO (2) QUESTIONS** from **SECTION A** and **ANY TWO QUESTIONS** from **SECTION B**.
- In total, **ANSWER FOUR QUESTIONS**.
- Use clearly labelled diagrams to illustrate your examples

## SECTION A

Answer any TWO questions from this section.

### QUESTION 1

- a) As a newly employed operations manager, the CEO of your organization has tasked you to discuss what distinguishes goods from services to new interns. Using a table format, present 5 distinguishing factors. [10]
- b) Measurement of productivity is an excellent way to evaluate a country's ability to provide an improving standard of living for its people. Describe in detail three variables critical to productivity improvement. [10]
- c) An Operations Manager successfully addresses 10 critical decisions. Outline these 10 critical decisions. [5]

[Total Marks = 25]

### QUESTION 2

- a) Globalization means talent, customers and suppliers are worldwide. Many domestic business operations have decided to change to some form of international operation. Discuss six (4) reasons why these businesses have globalised. [8]
- b) Your CEO has tasked you to demonstrate how two competitive strategies: Low Cost and Rapid Response can be implemented while focusing on the 10 critical decisions that operations manager make. Using any two companies of your choice, demonstrate how each competitive strategy has been implemented. [12]
- c) How does an operations management strategy change during a product life cycle? [5]

[Total Marks = 25]

### QUESTION 3

- a) Juliet Bolt, president of the Bolt Electronics, Inc., has two design options for the new line of high-resolution monitors for CAD workstations. The production run is for 100,000 units.  
Design option A has a 0.90 probability of yielding 60 good monitors per 100 and 0.10 probability of yielding 65 good monitor per 100. This design will cost K100, 000  
Design option B has a 0.80 probability of yielding 64 good units per 100 and a 0.20 probability of yielding 59 good units per 100. This design will cost K1, 350,000.

Good or bad each monitor will cost K75. Each monitor will sell for K150. Bad monitors are destroyed and have no salvage value.

- i. Use the decision tree to determine the Expected Monetary Value (EMVs) to enable Ms. Bolt make the decision. **[10]**
- ii. If Ms. Bolt increases all of Design B yields from 59,000 to 64,000 by applying an expensive phosphorus to the screen at an added manufacturing cost of K250, 000. Prepare a modified decision tree. What's are the pay-offs and which branch has the greatest EMVs. **[10]**
- b) Current engineering has changed the approach to product design. Describe current engineering in relation to product design and development. **[5]**

**[Total Marks = 25]**

## SECTION B

Answer Any 2 questions in this Section)

### QUESTION 4

- a) Discuss the limitation of the operations research (OR) methodology to problem solving.

[6]

- b) Use the graphical method to solve the problem:

$$\text{Maximize } Z = 2x_1 + x_2,$$

Subject to:

$$x_2 \leq 10$$

$$2x_1 + 5x_2 \leq 60$$

$$x_1 + x_2 \leq 18$$

$$3x_1 + x_2 \leq 44$$

and

$$x_1 \geq 0, x_2 \geq 0.$$

[10]

- c) The Move-It Company has two plants producing forklift trucks that then are shipped to three distribution centers. The production costs are the same at the two plants, and the cost of shipping for each truck is shown for each combination of plant and distribution center:

		Distribution Centre		
		1	2	3
Plant	A	K800	K700	K400
	B	K600	K800	K500

A total of 60 forklift trucks are produced and shipped per week. Each plant can produce and ship any amount up to a maximum of 50 trucks per week, so there is considerable flexibility on how to divide the total production between the two plants so as to reduce shipping costs. However, each distribution center must receive exactly 20 trucks per week.

Management’s objective is to determine how many forklift trucks should be produced at each plant, and then what the overall shipping pattern should be to minimize total shipping cost.

Formulate this problem as a transportation problem by constructing the appropriate parameter table. [9]

[Total Marks = 25]

**QUESTION 5**

a) Discuss any two areas of operations research applications in organisations of your choice. [6]

b) The Primo Insurance Company is introducing two new product lines: special risk insurance and mortgages. The expected profit is K5 per unit on special risk insurance and K2 per unit on mortgages.

Management wishes to establish sales quotas for the new product lines to maximize total expected profit. The work requirements are as follows:

Department	Work-Hours per Unit		Work-hours Available
	Special Risk	Mortgage	
Underwriting	3	2	2400
Administration	0	1	800
Claims	2	0	1200

- i. Formulate a linear programming model for this problem. [5]
- ii. Use the graphical method to solve this model. [7]
- iii. Verify the exact value of your optimal solution from part (ii) by solving algebraically or using the method by Brutus Forcius for the simultaneous solution of the relevant two equations. [7]

**QUESTION 6**

- a) Explain the various steps in the operations research (OR) development process. [7]
- b) Work through the simplex method (in algebraic form i.e by hand) step by step to solve the following problem.

$$\text{Maximize } Z = X_1 + 2X_2 + 4X_3,$$

Subject to

$$3X_1 + X_2 + 5X_3 \leq 10$$

$$X_1 + 4X_2 + X_3 \leq 8$$

$$2X_1 + 2X_3 \leq 7$$

and

$$X_1 \geq 0, X_2 \geq 0, X_3 \geq 0$$

[11]

c) Consider the following problem.

$$\text{Maximize } Z = 2X_1 + 3X_2,$$

Subject to

$$X_1 + 2X_2 \leq 4$$

$$X_1 + X_2 \leq 3$$

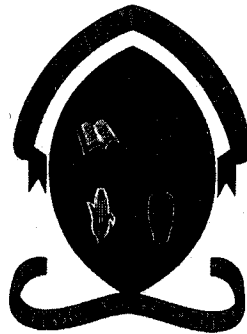
and

$$X_1 \geq 0, X_2 \geq 0.$$

- i. Find the exact values of your optimal solution by performing elementary row operations for augmented matrix to find the solution of the two equations. [7]

[Total Marks = 25]

**END OF EXAMINATION**



**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**COURSE NAME; TLM 3511- FACILITIES DESIGN**

**DURING: 14:00 – 17:00 HOURS**

**DATE: MONDAY 24 JANUARY 2022.**

**TIME ALLOWED: 3 HOURS PLUS 5 MINUTES READING TIME**

**INSTRUCTIONS TO CANDIDATES**

1. Check that you have the correct examination paper in front of you
2. The paper consists of Two sections, Section A contains simple question answers and carries 20 Marks and any other (4) questions in Section B carrying 20 Marks each.
3. All answers should be in an answer booklet given to you.
4. Write down the number of questions attempted on the cover page.
5. Begin each question on a new page.
6. There shall be no form of any communication between students during the examination. Any attempt to make such will lead to disqualification.

**DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO BY THE INVIGILATOR**



### **SECTION A:**

1. What is Facilities Design related to transport and logistics studies?
2. Mention any two objectives of Facilities Design
3. On what principle does Facilities Design focus on?
4. State the two types of queues at airport terminal facility
5. List two methods of check-in at airport terminal facility for passengers
6. Where would you apply Facility planning tools?
7. Facilities Planning is not synonymous to facilities layout.... TRUE or FALSE
8. What does Facilities location refer to?
9. What is site analysis in Facilities Design?
10. Why is accessibility important when considering Facilities Design project?

**SECTION B:** Answer any four questions. Each question carries 20 marks

#### **Question 1.**

Zambia Medicines and Medical Supplies Authority are planning to have a project of constructing a high-tech facility in Lusaka and you have been engaged to give technical guidance on the design.

In your view, you have subdivided the phases into 8 phases but you decided to give instructions on Facility planning considerations as the initial phase. In your own words describe the five (5) phases you would consider.

**Question 2.**

**Write notes on the following types of airport terminal designs**

- i) Finger Pier
- ii) Satellite
- iii) Transporter
- iv) Linear

**Question 3.**

As a transport and logistics graduate how would you describe Facilities planning process? **[20 marks]**

**Question 4.**

There are certain problems experienced in transport and logistics management in facilities in line with goods handling and storage.

- i) With your acquired knowledge in transport and logistics studies identify and write notes on such problems. **[15 marks]**
- ii) How would you classify five (5) such facility location problems?

**[5 marks]**

**Question 5.**

There are several factors that affect evaluation of airport terminal facility configurations. In your own words identify five (5) of such factors and write notes on each of them

**[20 marks]**

THE END



THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS (GSB)

# Final Examination

## LOGISTICS AND TRANSPORT FUNDAMENTALS

TLM3521

Duration: 3 Hours  
Date: 16<sup>th</sup> Sep 2021  
Time: 09:00 – 12:00  
Venue: SPORTS HALL

**\*Special Instructions:**

1. This is a **CLOSED** book exam, therefore **NO** books or any study materials can be used; answer booklets will be provided.
2. Question paper **MUST** be handed back to the invigilator together with answer sheets.



## Section A (20 Marks) Answer ALL questions

Short paragraph questions

1. What do you understand by the term “Logistic Channel”? List an example of two logistics channels: **(5 marks)**.
2. What is Logistics? In your explanation include the perspective of inflow and outflow, the mission and brief history **(5 marks)**.
3. In the area of distribution logistics, the term material management is common, Explain your understanding of the term “**Material Management**” MM, **(5 Marks)**.
4. In import and export Logistics, the word incoterm is critical, what is your understanding on the term “Incoterms” **(5 Marks)**.

## Section B (30 Marks). Attempt ANY TWO questions.

Discussion questions.

1. One of the new terms in contemporary logistics is “**Reverse Logistics**”, What is your understanding of the term reverse Logistics? Please explain in detail and narrate all the factors. **(15 marks)**
2. Using a practical example of your choice, discuss your understanding of the term “Supply Chain” Include New trends, challenges and Solutions. **(15 Marks)**
3. Sean Tembo owns a company which supplies fruits and vegetables to Shoprite and other supermarkets, Explain in terms the “**Seven Rs**” how his company would manage logistics related issues, list and explain the **Seven Rs**. **(20 Marks)**.



THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS (GSB)

# *Deferred* Examination

## LOGISTICS AND TRANSPORT FUNDAMENTALS

TLM3521

Duration: 3 Hours

Date: 2nd Dec 2021

Time: 09:00 – 12:00

Venue: SPORTS HALL

### **\*Special Instructions:**

1. This is a **CLOSED** book exam, therefore **NO** books or any study materials can be used; answer booklets will be provided.
2. Question paper **MUST** be handed back to the invigilator together with answer sheets.



## Section A (20 Marks) Answer ALL questions

Short paragraph questions

1. What do you understand by the term "Logistic Channel"? List an example of two logistics channels: **(5 marks)**.
2. What is Logistics? In your explanation include the perspective of inflow and outflow, the mission and brief history **(5 marks)**.
3. In the area of distribution logistics, the term material management is common, Explain your understanding of the term "**Material Management**" MM, **(5 Marks)**.
4. In import and export Logistics, the word incoterm is critical, what is your understanding on the term "Incoterms" **(5 Marks)**.

## Section B (30 Marks). Attempt ANY TWO questions.

Discussion questions.

1. One of the new terms in contemporary logistics is "**Reverse Logistics**", What is your understanding of the term reverse Logistics? Please explain in detail and narrate all the factors. **(15 marks)**
2. Using a practical example of your choice, discuss your understanding of the term "Supply Chain" Include New trends, challenges and Solutions. **(15 Marks)**
3. Sean Tembo owns a company which supplies fruits and vegetables to Shoprite and other supermarkets, Explain in terms the "**Seven Rs**" how his company would manage logistics related issues, list and explain the **Seven Rs**. **(20 Marks)**.



THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS (GSB)

# Final Examination

## LOGISTICS AND TRANSPORT FUNDAMENTALS

TLM3521

Duration: 3 Hours  
Date: 27<sup>th</sup> Jan 2022  
Time: 09:00 – 12:00  
Venue: SPORTS HALL

**\*Special Instructions:**

1. This is a **CLOSED** book exam, therefore **NO** books or any study materials can be used; answer booklets will be provided.
2. Question paper **MUST** be handed back to the invigilator together with answer sheets.





## Section A (20 Marks) Answer ALL questions

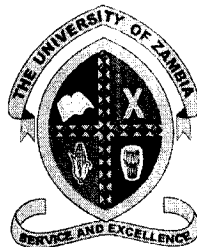
### Short paragraph questions

1. In the area of Logistics and distribution, What do you understand by the term "Logistic Channel"? List an example of two logistics channels: **(5 marks)**.
2. What is **Logistics**? In your explanation include the perspective of inflow and outflow, the mission and brief history **(5 marks)**.
3. In the area of distribution logistics, the term material management is common, Explain your understanding of the term "**Material Management**" MM, **(5 Marks)**.
4. In import and export Logistics, the word incoterm is critical, what is your understanding on the term "Incoterms" **(5 Marks)**.

## Section B (30 Marks). Attempt ANY TWO questions.

### Discussion questions.

1. One of the new terms in contemporary logistics is "**Reverse Logistics**", What is your understanding of the term reverse Logistics? Please explain in detail and narrate all the factors. **(15 marks)**
2. Using a practical example of your choice, discuss your understanding of the term "Supply Chain" Include New trends, challenges and Solutions. **(15 Marks)**
3. A company which supplies fruits and vegetables to Melisa and other supermarkets, Explain in terms the "**Seven Rs**" how this company would manage logistics related issues, list and explain the **Seven Rs**. **(20 Marks)**.



# **THE UNIVERSITY OF ZAMBIA**

## **GRADUATE SCHOOL OF BUSINESS**

**BSc - LTM Deferred Examination**

**Monday 07<sup>th</sup> April, 2021**

**TLM 3570: INTERNATIONAL LOGISTICS AND PURCHASING POLICY**

**Instructions to Candidates:**

- i. Time Allowed: **3 hours**
- ii. There are Seven (7) questions in this paper, and carries TWO Sections:  
Section A: Compulsory (20 marks)  
Section B: Attempt any FOUR (4) questions (80 marks)
- iii. Indicate clearly the number of questions attempted questions
- iv. Maximum marks obtainable are one hundred (100).

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A: COMPULSORY**

### **ATTEMPT QUESTION 1 AND ANY OTHER FOUR (4) QUESTIONS IN SECTION B**

#### **QUESTION 1**

Vincentia Pleasure Resorts is a national chain of lodges and leisure clubs, operating in several locations in the Northern part of Zambia. In 2017 financial year, it had a sales turnover of K540 million and an operating profit of K92 million. All purchasing is undertaken centrally by a team of four assistant buyers, reporting to the director Logistics. The total spend on food, alcoholic beverages and consumables is K64 million. One of Vincentia Pleasure Resorts' main competitors is Lazing Pleasures, another national chain of hotels and leisure clubs. Its sales turnover in the last financial year was K472 million, generating an operating profit of K42 million. Some of the purchasing is done centrally, by two assistant buyers and a purchasing manager, but about 25% of purchasing is devolved to individual hotel managers, who buy food ingredients and some consumables from local suppliers. Lazing Pleasures' total purchasing spend is K58 million.

The Boards of Directors of the two hotel chains have made a strategic decision to merge the two purchasing and supply functions. The managing director of Vincentia Pleasure Resorts has been quoted in the National Financial Press (Kumatwi), saying 'Our two companies spend a lot of time, money and resources to compete with each other to win customers. It does not make commercial sense to compete in the acquisition of food, alcoholic beverages and consumables. We believe that significant savings could be made by bringing together the two companies' purchasing and supply functions and this will have an impact on the bottom lines of both companies.' The merger of the two purchasing and supply functions will be effective from 1 January next year and the aim is to add value. Of the combined purchasing spend of the two companies; K122 million, a savings target of 10% in the first year has been set.

The Logistics and Purchasing Managers of the two hotel chains have been set the task of implementing the merger. As a starting point, they have shared information about the purchasing and supply performance of their companies. This information is shown in Table 1.

**Table 1: Information about the Purchasing and Supply Performance:**

	<b>Vincentia Pleasure Resorts</b>	<b>Lazing Pleasures</b>
Number of full-time staff in purchasing	5	3
Number of suppliers	4,258	16,894
Average value of stock held per hotel	K28,240	K15,986
Storage area for stock (per hotel)	145 sq metres	65 sq metres
Average cost of raising a purchase order	K43.52	K56.82
Average number of contracts reviewed annually	115	207
Payment terms to suppliers	30 days	60 days
% of deliveries received late from suppliers	9%	12%
% of deliveries from suppliers rejected	4%	3%
% deliveries sent to the wrong hotel	5%	4%
% deliveries to hotels with incorrect contents	12%	17%

A meeting has been arranged between the purchasing managers of the two hotels, who will be the joint heads of purchasing in the new operation. The purpose of this meeting is to investigate ways by which the savings of K12.2 million might be made.

**Required:**

- Define the term 'added value' as used in the case. **(3 marks)**
- Suggest FIVE (5) measurable improvements to the merged Logistics and Purchasing function that the joint heads of purchasing might introduce. **(5 marks)**
- Describe SIX (6) criteria that could be used by the hotels for measuring supplier performance. **(6 marks)**
- With the aid of the relationship spectrum, indicate the likely position of an outsourced relationship and describe it. **(6 marks)**

**Total (20 marks)**

## **SECTION B**

### **ATTEMPT ANY OTHER FOUR (4) QUESTIONS IN SECTION B**

#### **QUESTION 2**

- a) Identify THREE (3) factors that influence the closeness of the buyer-supplier relationship. **(3 marks)**
- b) Provide an explanation of the use of THREE (3) INCOTERMS in the context of sourcing from international suppliers, using the marine vessel. **(3 marks)**
- c) Explain FOUR (4) different types of risks that result in the vulnerability of the Logistics. **(4 marks)**
- d) Using the diagram, defend the relevance of Porter's Value Chain Model. **(10 marks)**

**Total (20 marks)**

#### **QUESTION 3**

- a) With an appropriate example in each case, contrast the Push and Pull Inventory Management Philosophies. **(8 marks)**
- b) Explain THREE (3) main inputs of a materials Requirements Planning (MRP) system. **(6 marks)**
- c) Explain TWO (2) fundamental principles essential to evaluate the alternative transportation strategies. **(6 marks)**

**Total (20 marks)**

#### **QUESTION 4**

- a) Mention FOUR (4) benefits of Lean supply. **(4 marks)**
- b) Warehouse Management Systems (WMS) is a software solution to control movement and storage of materials within a warehouse, transportation management, order management, and a complete accounting system. Further, the warehouse layout needs to fit specific needs. Outline THREE (3) considerations to be made while planning the layout and operation. **(6 marks)**
- c) Distinguish the "Master" air waybill and the "House" air waybill. **(4 marks)**
- d) Describe THREE (3) interdependent activities of Logistics and Supply Chain Management. **(6 marks)**

**Total (20 marks)**

### **QUESTION 5**

- a) Explain FOUR (4) reasons for increased reverse logistics. **(4 marks)**
- b) Identify THREE (3) operating objectives of Logistics and Purchasing in Business. **(6 marks)**
- c) Using the diagram, defend the relevance of Porter's Value Chain Model. **(10 marks)**

**Total (20 marks)**

### **QUESTION 6**

- a) Outline any FOUR (4) principles of Total Quality Management (ISO 9001:2008). **(6 marks)**
- b) Describe FOUR (4) typical sources of added value. **(4 marks)**
- c) Explain THREE (3) reasons advanced against Holding Inventories. **(6 marks)**
- d) Mention FOUR (4) services which are provided by Freight forwarder of your own choice. **(4 marks)**

**Total (20 marks)**

### **QUESTION 7**

- a) The CEO instructed the buyer to assess several hundred suppliers that might be capable of delivering the right products and services on time and to budget. Explain TWO (2) liquidity ratios and ONE (1) profitability ratio that the procurement function might have used to assess the viability of potential suppliers. **(6 marks)**
- b) Explain the relationship between the concepts of e-commerce and e-business. **(4 marks)**
- d) Describe FOUR (4) criteria that you would use to evaluate a new supplier. **(4 marks)**
- e) Explain THREE (3) challenges that a firm might encounter by buying globally. **(6 marks)**

**Total (20 marks)**

**END OF EXAMINATION**



# **THE UNIVERSITY OF ZAMBIA GRADUATE SCHOOL OF BUSINESS**

## **BSC - TLM Sessional Examination**

**Thursday 16<sup>th</sup> September, 2021**

## **LTM 3570: INTERNATIONAL LOGISTICS AND PURCHASING POLICY**

### **INSTRUCTIONS TO CANDIDATES**

1. Time Allowed: **3 hours**
2. There are TWO (2) Sections in this paper.
3. Section A is Compulsory
4. Section B has SIX (6) questions, and you are required to any FIVE (5) questions
5. Write your Examination Number and NRC Number on the answer booklet.
6. Use pencils and graph papers (provided) for drawings
7. Cell phones and programmable calculators are not allowed in the examination room.
8. Maximum marks obtainable are one hundred (100).
9. Each question carries equal marks

**DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## SECTION A: COMPULSORY

Attempt Question 1 and any other FOUR Questions in Section B.

### QUESTION 1

CCBN Engineering Limited has been in business since the 1900's and has three locations in Eastern Province. Their Head Office and main manufacturing site is in Lundazi. This site makes complex tubular assemblies for defence organisations, oil and gas and transportation. There is a site at Kacholola making handles for rackets, and a site in Lumwana manufacturing aerospace Duct assemblies up to 8" diameter.

The procurement organisation is currently decentralised. At Lundazi, there is a Purchasing Manager, whereas at Kacholola and Vubwi, each site has a Chief Buyer in charge of small procurement teams. There is a new Chief Executive of CCBN who fervently believes that he needs a new approach for the Group in the way procurement is structured. Over the past month, he has, quietly, been obtaining some salient facts, among them, include:

- Each site operates as a 'Profit Centre' and the Site Director has to deliver a targeted Return on Capital Employed;
- There are no Group purchase contracts;
- Five major purchases account for 70 percent of total Group expenditure – they are all raw material including different specifications of tubing;
- There are more than 40 suppliers for the five major purchases;
- No formal tendering has taken place, on any site, for more than two years;
- Capital equipment is purchased by the Group Chief Engineer;
- The company has embraced modern logistics practices including JIT and OTIF (On Time In Full);
- There is no savings plan for purchasing;
- The purchasing teams do not liaise.

The Chief Executive intends to consider an alternative purchasing structure that can deliver benefits for the Group and each operational site. On the basis of your knowledge and the salient facts above what advice could you give him?

*Required:*

- a) State THREE (3) alternative structures that could be considered. **(6 marks)**
- b) Mention THREE (6) business benefits that could accrue from a changed purchasing structure. **(6 marks)**
- c) Explain FOUR (4) reasons why organizations prefer to keep inventories. **(4 marks)**
- d) Describe FOUR (4) different Sourcing Strategies. **(4 marks)**

**Total: 20 marks**



## SECTION B

Attempt any other **FOUR** Questions in Section B.

### QUESTION 2

- a) Distinguish Purchasing and Procurement, highlighting **THREE (3)** different types of purchase. **(7 marks)**
- b) Illustrate the formula for computing Return on Investment and explain its meaning in relation to the performance of the Logistics function. **(5 marks)**
- c) Describe **FOUR (4)** ways in which Supply Chain Management can support the management and reduction of costs. **(8 marks)**

**Total: 20 marks**

### QUESTION 3

- a) Give **TWO (2)** measures which are may be in place to protect Businesses in International trading. **(4 marks)**
- b) Identify **THREE (3)** operating objectives of Logistics and Purchasing in Business. **(6 marks)**
- c) Explain **FOUR (4)** principles of Total Quality Management. **(4 marks)**
- d) Explain **THREE (3)** reasons which lead to increased Reverse Logistics. **(6 marks)**

**Total: 20 marks**

### QUESTION 4

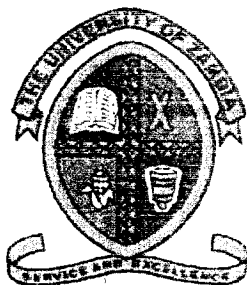
- a) Mention **FOUR (4)** benefits of outsourcing. **(4 marks)**
- b) Explain **TWO (2)** advantages and **TWO (2)** disadvantages of sourcing globally. **(4 marks)**
- c) Contrast Logistics and Supply Chain Management. **(4 marks)**
- d) Elaborate **FOUR (4)** functions of Warehousing. **(8 marks)**

**Total: 20 marks**

### QUESTION 5

- a) Describe any **THREE (3)** main modes of transportation in logistics and compare each mode's merits and demerits. **(9 marks)**
- b) Discuss the following Philosophies:
  - i. Economic Order Quantity **(2 marks)**
  - ii. Just-in-time **(4 marks)**
  - iii. Materials Requirement Plan (MRP) **(5 marks)**

**Total: 20 marks**



## UNIVERSITY OF ZAMBIA

### BSc in Transport and Logistics Management

#### Purchasing Principles and Processes TLM 3581

#### 2022 Final Sessional Examinations

#### **Instructions**

1. Time : 09hrs – 12hrs Date: 24<sup>th</sup> January, 2022
2. There are Seven (7) questions in this paper, section A is compulsory, attempt any three questions from section B.
3. Note that **ONLY** the first five questions answered will be considered and no marks will be awarded for any additional question(s) attempted.
4. Marks for each question are indicated in the brackets.
5. **Duration:** 3 hours
6. Make sure that presentation of your answers is as legible as possible as the examiner will not award marks for illegible answers.

## **SECTION A (COMPULSORY)**

### **QUESTION ONE**

Discuss main differences and contractual requirements of transactional and relationship procurement. (20 marks)

### **QUESTION TWO**

A procurement department surveyed ten most commonly used components last year.

Item Number	101	102	103	104	105	106	107	108	109	110
Unit cost	5	11	15	8	7	16	20	4	9	12
Annual Demand	48 000	2000	300	200	4800	1200	18000	300	5000	500

- Calculate the percentage of annual usage for each item (10 marks)
- Sort the items into A, B or C categories. (10 marks)

## **SECTION B (ATTEMPT ANY THREE)**

### **QUESTION THREE**

Game theory provides a number of critical features that can add significantly to our negotiation preparation.

Discuss the following four negotiation games, chicken, trust, stag hunt and prisoner's dilemma. (20 marks)

### **QUESTION FOUR**

Procedures are formal arrangements by means of which policies linking strategies are implemented.

Discuss procurement procedures that provide information enabling staff to execute and managers to control the system. (20 marks)

### QUESTION FIVE

The table below shows the details of the shipment of household appliances. Decompose the data below, using a 4 – quarter moving average to calculate the seasonal variations.

Year	1				2				3				3				4			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Shipment	4009	4321	4224	3944	4412	4522	4655	4430	4493	4806	4551	4485	4599	4797	4415	4258	4245	4900	4585	4533

(20 marks)

### QUESTION SIX

Explain clearly the following ten (10) INCOTERMS which are rules for any mode of transport.

- I. EXW Ex Works
- II. FCA Free Carrier
- III. CPT Carriage Paid To
- IV. CIP Carriage and Insurance Paid To
- V. DAT Delivered at Terminal
- VI. DAP Delivered at Place
- VII. FAS Free Alongside Ship
- VIII. FOB Free On board
- IX. CFR Cost and Freight
- X. CIF Cost Insurance and Freight

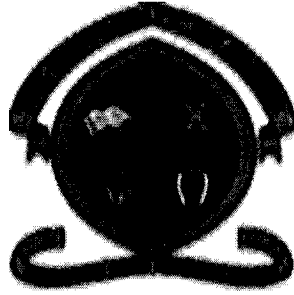
(20 marks)

### QUESTION SEVEN

Explain the following terms as applied in procurement practice

- I. Supply Chain Management
- II. Lean Organisation
- III. Total Quality Management
- IV. Economic Order Quantity
- V. Collusive Tendering
- VI. Freight Agents
- VII. Negotiation Ethics
- VIII. Countertrade
- IX. Outsourcing
- X. Independent Demand

(20 marks)



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**UNDERGRADUATE SESSIONAL EXAMINATIONS**  
**STRATEGIC SUPPLY-CHAIN MANAGEMENT –TLM 4510**

**DATE: 21 JANUARY, 2022**

**DURATION: 3 HOURS**

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**INSTRUCTIONS**

- Answer **ALL** the questions in **SECTION A**
- Choose **THREE** questions from **SECTION B**
- Use clearly labelled diagrams to illustrate your examples

## SECTION A

### SECTION A: COMPULSORY QUESTION

#### Question 1

NEO Builders are in the process of selecting a supplier to construct a bridge in Kwekwe Town. The company has already employed a Project Manager but they are in need of a reliable supplier.

- i. Describe in detail the steps that NEO Builders should follow in the selection of the supplier. [16]
- ii. NEO Builders have established a criterion for selecting the suppliers. To each criterion, a weight has been allocated. For example, the engineering/innovation/research skills is allocated 0.20. The weight for information systems capacity; and quality systems and performance is half the weight for engineering/innovation/research skills. The weight for distribution/delivery capacity and facilities/location is half that of information systems capacity. The weight for production process capacity is 0.5 while that of integrity (environmental compliance/ethics) is 0.20. Finally, the weight for financial and managerial strength is 0.15. Which supplier will be considered for the project. [20]

Table1: Evaluation Data.

Criteria	Scores A	Scores B	Scores C
Engineering/Innovation/research skills	5	3	2
Production Process Capacity	2	1	1
Distribution/delivery capacity	4	5	5
Quality systems and performance	2	3	3
Facilities/Location	2	2	2
Financial and managerial strength	4	4	5
Information systems capacity	2	1	3
Integrity (environmental compliance/ethics)	5	3	1

- iii. Explain the 4Rs in the definition of Logistics. [4]

[Total Marks = 40]

## **SECTION B**

**Answer Any 3 questions in this Section**

### **QUESTION 2**

- a) Supply-chain networks encounter several sources of wastes. These wastes contribute to the non-performance of the supply-chain networks. Describe two sources of supply-chain wastes. [10]
- b) Outline five metrics for measuring supply-chain performance. [10]

**[Total Marks = 20]**

### **QUESTION 3**

- a) The bullwhip effect has a number of negative effects in real supply chains, which can cause significant inefficiencies and supply-chain networks are seeking for solutions. As a newly appointed Supply-Chain Manager, discuss five strategies for counteracting the Bullwhip Effect. [15]
- b) Outline any two Business to Consumer E-Commerce models that are cardinal in supply chain management. [5]

**[Total Marks = 20]**

### **QUESTION 4**

- a) ABC has transformed its business operations by providing an online platform for transacting with its industrial customers. The transformation is enforced by several benefits associated with E-Commerce.
  - i. Discuss four benefits of E-Commerce [8]
  - ii. Outline any three types of E-Commerce platforms [6]
- b) There are several sourcing strategies and each has advantages and disadvantages. In your own words, describe the Keiretsu Networks. [6]

**[Total Marks = 20]**

### **QUESTION 5**

- a) Your company has instructed you to conduct an assessment on the existing transportation modes for goods in Zambia. In the report, you are instructed to assess

any three transportation modes by providing their advantages and disadvantages. Using a table format, present the findings. [15]

- b) ABC company has encountered logistics damage risks and it is now in the process of developing mitigation strategies. Propose two mitigation strategies to ABC company.

[5]

[Total Marks = 20]

**END OF EXAMINATION**





**THE UNIVERSITY OF ZAMBIA  
GRADUATE SCHOOL OF BUSINESS**

**COURSE NAME; TLM 4521- FREIGHT AND TRANSPORT OPERATIONS**

**DURING: 14:00 – 17:00 HOURS**

**DATE: WEDNESDAY 19 JANUARY 2022.**

**TIME ALLOWED: 3 HOURS PLUS 5 MINUTES READING TIME**

**INSTRUCTIONS TO CANDIDATES**

1. Check that you have the correct examination paper in front of you
2. The paper consists of Two sections, Section A contains simple question answers and carries 20 Marks and any other (4) questions in Section B carrying 20 Marks each.
3. All answers should be in an answer booklet given to you.
4. Write down the number of questions attempted on the cover page.
5. Begin each question on a new page.
6. There shall be no form of any communication between students during the examination. Any attempt to make such will lead to disqualification.

**DO NOT TURN THIS PAGE UNTIL TOLD TO DO SO BY THE INVIGILATOR**

## **SECTION A:**

1. In transport MAD stands for.....
2. Density is a cost that does not change with production    True    False
3. What is Stowability in freight transport?
4. What does TEUs explain in maritime freight shipment
5. Mention two ways of structuring freight transport and logistics rate
6. Multimodal transport is related to two aviation navigation systems  
True    False
7. What is the difference between red number plate and black number on trucks in Zambia?
8. Explain axle load management in Zambia
9. What type of road licence is issued to transport operators in Zambia?
10. State two main variable costs in freight transport and operations

**SECTION B:** Answer any four questions. Each question carries 20 marks

### **Question 1.**

You as an expert in freight transport and you have been requested by the Ministry of Transport and Logistics to assist in reducing congestion on city roads in Lusaka by not allowing freight vehicles within the Central Business District. These vehicles have not caused congestion but regrettably have contributed to the degradation of environment and affecting most people in the way to do business.

How would you resolve this national problem to ensure that our cities are clean and safe for people to work or do their business properly in a safe environment but not affecting the movement of goods for production to enhance the economy?

**Question 2.**

Traditionally, Warehousing is regarded as a storage facility of inventory and other materials in the supply chain. The current research and other innovative approaches have discovered that Warehousing are shifting facilities to enhance movement of freight to specified destinations.

- A) Mention types of warehousing that you are familiar with.
- B) What are the advantages and disadvantages of warehousing?
- C) How does cross-docking relate to warehousing facility?

**Question 3.**

In freight transportation various international documentations are required for cargo to be shipped to destinations. In your own words state five of such documents and write notes on each of them.

**Question 4.**

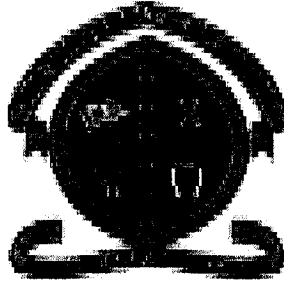
Among freight transport services provided in the market, road freight is the easiest mode to enter without major regulatory restrictions and financial implications.

With any freight transport firm of your own choice identify the common operational costs and illustrate how you would calculate them.

**Question 6.**

With appropriate examples, describe the road freight licensing system in Zambia. Explain the objectives of the system.

THE END



**THE UNIVERSITY OF ZAMBIA**  
**GRADUATE SCHOOL OF BUSINESS**

**UNDERGRADUATE SESSIONAL EXAMINATIONS**  
**PROJECT AND CONTRACT MANAGEMENT – TLM 4531**

**DATE: 21<sup>ST</sup> JANUARY 2022**

**DURATION: 3 HOURS**

**INSTRUCTIONS**

- Answer **ALL** the questions in **SECTION A**
- Choose **THREE** questions from **SECTION B**
- Use clearly labelled diagrams to illustrate your examples
- **DO NOT TURN OVER UNTIL YOU ARE TOLD TO DO SO**

## **SECTION A: Question 1 is compulsory and must be attempted**

### **QUESTION 1**

Read the case below and then answer the questions that follow;

You have just acquired a job as a Project Manager on a Water Utility Companies Data Base Clean-UP project under the Water Resources Management Authority (WRMA) that is being jointly financed by the Zambian and American Governments. This is a National Wide Project that is expected to last for one year, starting November 2021 to November 2022. It is hoped that once this project is successfully implemented, it will contribute towards the revamping of the Water Utility Companies and this would consequently lead to quality delivery of water and sanitation services by these Companies. Improvement in the service delivery of the Water Utility Companies is one significant milestone in so far as reducing the infection rates of COVID Pandemic is concerned. Therefore, this project is being regarded as being very critical and relevant to the current prevailing COVID 19 situation, which has rocked not only Zambia but the entire World.

One of your preliminary assignments in this Project as the Project Manager is to facilitate the development of the Project Charter document which is an important input into the development of the Project Management plan which is a consolidated document containing important elements such as the Cost Baseline, Schedule Baseline and the Scope Baseline as well as other subsidiary Plans.

- a. Advise on the Meaning of the term Project Charter **(2 Marks)**
- b. Discuss at least 6 important inclusions in the Project Charter **(12 Marks)**
- c. Identify and discuss any 4 risks that would impede this project and state how these would be managed **(12 Marks)**
- d. Advice on the meaning of the term Risk Analysis and explain why this is important on this Project **(4 Marks)**
- e. Critically examine 5 Facilitating Knowledge areas that the Project Team needs to apply on this project, that is, in a bid to conform to Modern Day Project Management **(10 Marks)**

**[Total Marks = 40]**

**SECTION B: Attempt any 3 questions from this Section. Please note that each question in this Section carries 20 Marks.**

**QUESTION 2**

‘A contract is a legally enforceable agreement between two or more parties with mutual obligations’. The agreement may be simple or complex, usually (but not always) reflecting the simplicity or complexity of the product’.

- a. Identify and Discuss any 2 types of appropriate contracts that can be applied in a contractual Relationship      **(10 Marks)**
- b. A contract may not necessarily be valid as the validity may be affected by some factors. Identify and critically examine 5 Factors that may affect the validity of the contract      **(10 Marks)**

**[Total Marks = 20]**

### QUESTION 3

You have signed a contract to build a garage for Messer Bwezani the owner of one of the best hotels in the southern Region of Africa. The table below summarizes the precedence relationships among the activities within this Project.

#### Construction of the Messer's Bwezani Garage

ID (days)	Description	Predecessor(s)	Time
A	Pour foundation	None	3
B	Erect frame	A	4
C	Roof	B	4
D	Windows	B	1
E	Doors	B	1
F	Electrical	B	3
G	Rough-in frame	C, D, E, F	2
H	Door opener	E, F	1
I	Paint	G, H	2
J	Cleanup	I	1

Based on the above Information in the table:-

- Construct the Project Network Diagram (6 Marks)
- Compute Slack for each activity and identify the critical Path (6 Marks)
- Advise on the meaning of the terms Merge Activity and Burst Activity and state the Merger and Burst Activities if there are any in this Project Network Diagram (6 Marks)
- One of the fast tracking techniques you can apply on this Project to finish early if there are incentives for finishing early is Overlapping Phase to Phase Relationship. Advise on the meaning of the term 'Overlapping Phase to Phase Relationship' and state one limitation of this technique (2 Marks)

[Total Marks = 20]

#### **QUESTION 4**

Project Management is new Profession that has gained momentum over- time and whose body of knowledge keeps advancing through research and experience, under the auspices of international institutions such as the Project Management Institute (PMI).

- a) Identify and discuss any 5 likely ethical dilemmas a Project Manager would experience in the practice of the Project Management Profession (10 Marks)
- b) Discuss any 5 benefits of applying Project Management to Projects (10 Marks)

**[Total Marks = 20]**

#### **QUESTION 5**

‘Contract management is the process that enables both parties to a contract to meet their obligations in order to deliver the objectives required from the contract. It also involves building a good working relationship between customer and provider’.

- a. Critically examine 5 potential pitfalls in Contract Management that require timely identification and management (10 Marks)
- b. Identify and discuss 5 Critical Success Factors for Contract Management (10 Marks)

**[Total Marks = 20]**

**END OF EXAMINATION**





## UNIVERSITY OF ZAMBIA

### BSc in Transport and Logistics Management

Simulation Modelling and Optimisation TLM 4541

2022 Final Sessional Examinations

#### Instructions

1. Time : 09hrs – 12hrs Date: 17<sup>th</sup> January, 2022
2. There are Seven (7) questions in this paper, attempt any five questions.
3. Note that **ONLY** the **first five** questions answered will be considered and no marks will be awarded for any additional question(s) attempted.
4. Marks for each question are indicated in the brackets.
5. **Duration:** 3 hours
6. Make sure that presentation of your answers is as legible as possible as the examiner will not award marks for illegible answers.

### QUESTION 1

A Travelling Salesman has planned to visit 5 cities to deliver the items to clients. He would like to start from a particular city and, visit each city once and return to the city. The travelling cost in Kwacha is given in the table below. Find the least of the travelling salesman problem.

	A	B	C	D	E
A	-	2	5	8	1
B	6	-	3	9	2
C	8	7	-	4	8
D	13	4	7	-	5
E	1	3	2	8	-

(20 Marks)

### QUESTION 2

Dorica is a manager at a transport company who schedules all his clients for 30 minutes appointment. Some of the clients take more or less than 30 minutes depending on the type of route is involved. The following summary shows the various categories of routes, their probabilities and the time actually needed to complete the work.

ROUTE	TIME REQUIRED	No. of PATIENTS
LUAPULA	45 MINUTES	40
COPPERBELT	60 MINUTES	15
CENTRAL	15 MINUTES	15
MUCHINGA	15 MINUTES	20
WESTERN	45 MINUTES	10

Simulate the manager's schedule for six hours and find out the average waiting time for the clients and the idleness for the manager. Assume that all the clients show up at the office at exactly their scheduled, arrival time, starting at 08:00.

Use the following random numbers for handling the above problem, 40, 82, 11, 34 25, 66, 17 and 79.

(20 Marks)

### QUESTION 3

- (a) The two matrices below represent the pheromone matrix for two ants that seek food over the same distance but in take different routes as indicated.

(i) Cost Matrix (Distance)

	Tree	Car	Hut	Pond
Tree	0	5	15	4
Car	5	0	4	8
Hut	15	4	0	1
Pond	4	8	1	0

(ii) Pheromone Matrix

	Tree	Car	Hut	Pond
Tree	0	4	10	3
Car	4	0	1	2
Hut	10	1	0	1
Pond	3	2	1	0

Develop the mathematical model that would be used to simulate the pheromone levels on the ground and its cost implications. Furthermore if the pheromone levels between the house and the car increased fivefold what would be the implications in the model. Assume  $\rho = 0.5$ .

(20 Marks)

#### QUESTION 4

- (a) As a logistics planner you are faced with the challenge of filling items in the bag with a fixed capacity of 15. Please note that once an item is selected it cannot be split.

	1	2	3	4
Profit	10	10	12	18
Weight	2	4	6	9

Use the least cost branch and bound method to solve the 0/1 knapsack problem given above.  
(10 Marks)

- (b) Use either the dynamic programming method or the search method to solve the following knapsack problem whose limiting capacity is 8.

Profit	1	2	5	6
Weight	2	3	4	5

(10 Marks)

#### QUESTION 5

Find the initial basic feasible solution of the following transportation problem by northwest corner cell method and optimize the solution using the MODI or U-V method.

Destination					
	P	Q	R	S	Supply
A	3	1	7	4	250
B	2	6	5	9	350
C	8	3	3	2	400
Demand	200	300	350	150	

( 20 marks)

### QUESTION 6

Consider the following transshipment problem involving 4 sources and 2 destinations. The supply values of the sources S1, S2, S3, and S4 are 200 units, 250 units, 300 units, and 450 units respectively. The demand for the destinations D1 and D2 are 600 units and 600 units respectively.

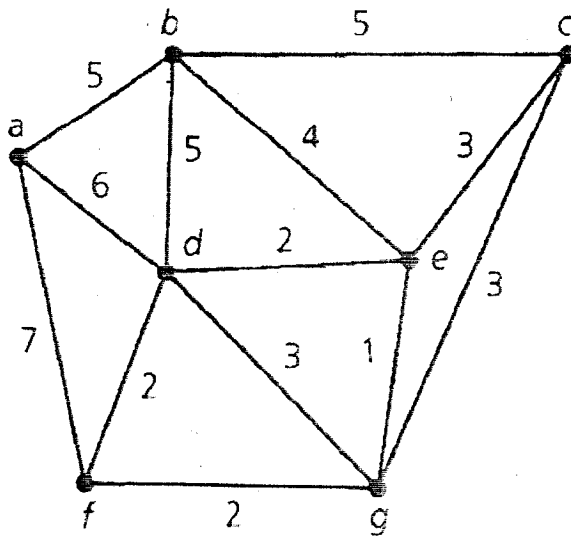
The transportation cost per unit between different sources and destinations are summarized in the table below. Draw the transshipment pattern. (20 marks)

	S1	S2	S3	S4	D1	D2
S1	0	6	24	7	24	10
S2	10	0	6	12	5	20
S3	15	20	0	8	45	7
S4	18	25	10	0	30	6
D1	15	20	60	15	0	10
D2	10	25	25	23	4	0

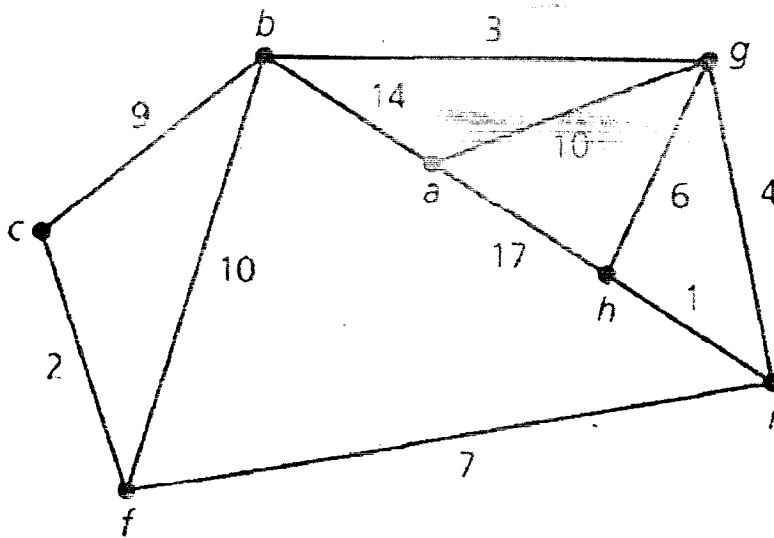
### QUESTION 7

Attempt EITHER part A or part B of this question

A. Calculate the shortest path in the network from vertex from vertex A.



B. Determine the shortest path in the network from vertex A to each of the vertices C, F and I



(20 marks)



## UNIVERSITY OF ZAMBIA

### BSc in Transport and Logistics Management

#### Modelling and Simulation TLM 4541

#### 2021 Deferred/Supplementary Examinations

#### Instructions

1. Time : 09hrs – 12hrs Date: 06<sup>th</sup> April, 2021
2. There are Six (6) questions in this paper, attempt any five questions.
3. Note that **ONLY** the **first five** questions answered will be considered and no marks will be awarded for any additional question(s) attempted.
4. Non programmable calculators are allowed
5. Marks for each question are indicated in the brackets.
6. **Duration:** 3 hours
7. Make sure that presentation of your answers is as legible as possible as the examiner will not award marks for illegible answers.

### QUESTION 1

A Travelling Salesman has planned to visit 5 cities to deliver the items to clients. He would like to start from a particular city and, visit each city once and return to the city. The travelling cost in Kwacha (00) is given in the table below. Find the least cost route of the travelling salesman problem.

	A	B	C	D	E
A	-	2	5	8	1
B	6	-	3	9	2
C	8	7	-	4	8
D	13	4	7	-	5
E	1	3	2	8	-

(20 Marks)



## **QUESTION 2**

Consider the following transshipment problem involving 4 sources and two destinations. The supply values of the sources S1, S2, S3 and S4 are 200 units, 250 units, 300 units and 450 units respectively.

The demand values of the destinations D1 and D2 are 600 units and 600 units respectively. The transportation cost per unit between different sources and destinations are summarized in the following table. Solve the transshipment problem.

	S1	S2	S3	S4	D1	D2
S1	-	6	24	7	24	10
S2	10	-	6	12	5	20
S3	15	20	-	8	45	7
S4	18	25	10	-	30	6
D1	15	20	60	15	-	10
D2	10	25	25	23	4	-

(20 Marks)

## **QUESTION 3**

Frank, a manager at a transport company, schedules all his clients for 45 minutes appointments. Some of the clients take more or less than 45 minutes depending on the type of route involved. The following summary shows the various categories of routes, their probabilities and the time actually needed to complete the work.

ROUTE	TIME REQUIRED	No. of PATIENTS
LUAPULA	45 MINUTES	40
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Simulate the manager's schedule for six hours and find out the average waiting time for the clients and the idleness for the manager. Assume that all the clients show up at the office at exactly their scheduled, arrival time, starting at 08:00.

Use the following random numbers for handling the above problem, 40, 82, 11, 34 25, 66, 17 and 79.

(20 Marks)

#### **QUESTION 4**

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### **QUESTION 5**

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	1	2	3	4
Profit	10	10	12	18
Weight	2	4	6	9

Use the least cost branch and bound method to solve the 0/1 knapsack problem given above. (10 Marks)

- (b) Use either the dynamic programming method or the search method to solve the following knapsack problem whose limiting capacity is 8.

Profit	1	2	5	6
Weight	2	3	4	5

(10 Marks)

### QUESTION 6

- (a) Develop the mathematical particle swarm optimization model and explain its constituent elements. (10 Marks)
- (b) Use Kruskal's or Prim's algorithm to find the minimum spanning in the diagram below. (10 Marks)

