



MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

THIRD YEAR FIRST SEMESTER

SCHOOL OF BUSINESS AND ECONOMICS

BACHELOR OF COMMERCE

COURSE CODE: BCM 3149

COURSE TITLE: LOGISTICS SYSTEM

DATE: 28TH MARCH, 2022

TIME: 0830-1030

INSTRUCTIONS TO CANDIDATES

1. Answer Question **ONE** and any other **THREE** questions
2. Do **NOT** write on this Question paper

QUESTION ONE

- (a) Explain five reasons why an organization might choose to hold stocks of different products. **(5mks)**
- (b) Logistics system is about creating value-value for customers and suppliers of the firm, and value for the firm's stakeholders. Explain five reasons why logistics system has become an increasingly important value-adding process of organizations in the world today. **(5mks)**
- (c) Examine five elements of a good forecast in purchasing and supply management **(5mks)**
- (d) Describe five benefits of proper materials handling in purchasing and supply management. **(5mks)**
- (e) Explain five factors of logistics components which affect the choice and route of transportation in purchasing and supply management. **(5mks)**

QUESTION TWO

- (a) Explain five interrelationships of logistics with marketing in purchasing and supply organizations. **(5mks)**
- (b) XYZ Company intends to employ the Economic Order Quantity (EOQ) as a tool of inventory management. Advise XYZ Company on five shortcomings associated with the use of EOQ technique of inventory management in the organization. **(5mks)**
- (c) In the entire logistics and supply chain Management System, packaging is not as costly as transportation, but 10% of the total integrated logistics can be attributed to packaging, packaging singularly affects many integrated logistics supply chain management activities. Explain five reasons why a product packaging expense shall be incurred by an organization in logistics and supply chain management. **(5mks)**

QUESTION THREE

- (a) Sople (2012) observes that logistics information system is a vehicle for supply chain competency of business enterprises in the World today. Explain five ways in logistics information system can be used

to increase the level of competitiveness of an enterprise in the industry. **(5mks)**

- (b) According to Richards (2018) there are emerging issues and trends in supply chain which affects today's warehouse management. Describe the five areas of emerging issues and trends that challenge today's warehouse and logistics managers in warehouse management. **(5mks)**
- (c) Examine five principles of good routing and scheduling in logistics Transportation management. **(5mks)**

QUESTION FOUR

- (a) The XMK Company has been experiencing increasing challenges of total cost of ownership for the last ten years. You have been appointed as a supply chain manager of the organization. Describe five ways in which Just-In-Time technique of inventory management will be used in decreasing total cost of ownership of the organization. **(5MKS)**
- (b) Explain five reasons why the concept of logistics is based on the system approach in purchasing and supply management. **(5mks)**
- (c) Logistics system is a collection of interrelated functional activities which are repeated many times throughout the channel through which raw materials are converted into finished products and consumer value is added. Describe five components of a typical logistics system which are performed in an organization's supply chain. **(5mks)**

QUESTION FIVE

The number of heart surgeries performed at Heart Ville General Hospital has increased steadily over the past several years. The hospital's administration is seeking the best method for forecast the demand for such surgeries in year 6. The data for the past 5 years are shown. Six years ago, the forecast for year 1 was 41 surgeries, and the estimated trend was an increase of 2 per year.

YEAR	DEMAND
1	45
2	50
3	52
4	56
5	58

(a) The hospital's administration is considering the following forecasting methods.

- i. Three year simple moving average, **(2mks)**
- ii. Exponential smoothing with $\alpha = 0.6$ and $\alpha = 0.9$ **(2mks)**
- iii. Three year weighted moving average, using weights $3/6, 2/6$ and $1/6$ with more recent data given more weight **(2mks)**
- iv. Regression model, $y = 42.6 + 3.2x$, and x is the index for the year (eg. $x=1$ for year 1, $x=2$ for year 2 for year 2 etc.) **(2mks)**
- v. Advise the management of Heart Ville General Hospital which of the three forecasting methods-simple moving average, exponential smoothing and regression model is appropriate for the organization. Give the reason for your answer. **(2mks)**

(b) Explain five factors which have influenced the development of logistics systems in purchasing and supply management. **(5mks)**

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