



**UNIVERSITY EXAMINATIONS: 2013/2014**

**EXAMINATION FOR THE MASTER OF BUSINESS ADMINISTRATION**

**PSM 510 LOGISTICS MANAGEMENT (EVENING)**

**DATE: APRIL, 2014**

**TIME: 3 HOURS**

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**INSTRUCTIONS: Answer Question One and Any Other Three Questions**

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**QUESTION ONE (31 MARKS)**

Logistics *management* is literally thousands of years old, dating back to the earliest forms of organized trade. Yet as an area of study, logistics first began to gain attention in the 1900s in the distribution of farm products as a way to support an organizations business strategy and provide time and place utility. In 1901, John F. Cromwell discussed the costs and factors affecting the distribution of farm products in the US.

Later in his *Approach to Business Problems* ( 1916), Arch W. Shaw discussed the strategic aspects of logistics. During that same year, L.H. H. Weld introduced the concepts of marketing utilities( time, place, possession) and channels of distribution.

In 1922, Fred E. Clark identified the role of logistics in marketing.

With the onset of World War 11, logistics was further developed and refined. Because logistics efforts clearly contributed to the Allied forces victory in world war 11, logistics began to receive increased recognition and emphasis.

Effective logistics management has been recognized as a key element in improving both the profitability and the competitive performance of firms.

The marketing effort must integrate the ideas of having the right product, at the right price, combined with the right promotion, and available in the right place- these are the 4 Ps of marketing.

Logistics plays a critical role, particularly in support of getting the product to the right place

Place – Customer service is the output of the logistics system and represents the firms expenditure for logistics. Logistics adds Time and Place utility.

**Required:**

- a) What are the factors underlying the development and interest in Logistics Management in this case study? (8 Marks)
- b) Distinguish between Supply Chain Management and Logistics Management and discuss the role logistics plays in the economy. (8 Marks)
- c) Three key modes of transportation are recognized in the case study which were then applicable which have now expanded to five. Explain the economic and service characteristics of the five modes of transportation and explain how the East African Community can leverage these indicating in your opinion with reasons which will be the top 2 (define your preferred unit, volume, value etc). (15Marks)

**QUESTION TWO (23 MARKS)**

- a) Railroads have the largest percentage of intercity freight ton – miles but motor carriers have the largest revenue. How can you explain these using valid examples? ( 11 Marks)
- b) How can warehouse layout and design affect productivity and efficiency? Illustrate your answer? (12 Marks)

**QUESTION THREE (23 MARKS)**

Logistics system are important for domestic supply chain integration, they are absolutely essential for successful global manufacturing and marketing. Domestic logistics focuses on performance movement and storage activities to support supply chain integration in a relatively controlled environment. Global logistics must support operations in a variety of different national, political and economic settings while also dealing with increased uncertainty associated with the distance, demand, diversity and documentation of international commerce.

What would be the logistics challenge in the following regions:

- a) North America
- b) Europe
- c) Pacific rim
- d) Africa

(23 Marks)

#### **QUESTION FOUR (23 MARKS)**

Quality was regarded as a defensive tool rather than a competitive weapon to develop new products and increase market share. Emphasis was on quality control hence reliance on inspection rather than on prevention. Hence the belief that higher quality was more costly.

- a) Describe briefly the three elements of cost of quality and give examples constituting each element. (9 Marks)
- b) List and briefly describe the four elements of Total Quality Management. (8 Marks)
- c) Why do TQM programmes fail in organizations? Illustrate your answer. (6 Marks)

#### **QUESTION FIVE (23 MARKS)**

Warehousing is used for the storage of inventories during all phases of the logistics process. Two types of inventories exist; Raw materials, components and parts (Physical supply) and Finished goods (physical distribution)

- a) Discuss, giving examples the factors you would take into account in deciding the size of a warehouse. (11 Marks)
- b) Why is holding inventory necessary yet it is a very costly affair? Describe three ways of measuring productivity of a warehouse that you can use in performance management for warehousing staff. (12 Marks)

#### **QUESTION SIX (23 MARKS)**

ABC Company limited is a National Milk Processor with operations throughout the country. They have hired you as their consultant to help streamline the bottle procurement processes and especially the quantities of bottles they need at any one given time.

- a) What assumptions would you make in determining the number of bottles required to adequately bottle milk for sale? (15 Marks)
- b) What would change in your requirements if instead of bottles you use metallic cans? ( 8 Marks)