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**GARISSA UNIVERSITY**

**UNIVERSITY EXAMINATION 2020/2021 ACADEMIC YEAR THREE**

**SECOND SEMESTER EXAMINATION**

**SCHOOL OF BUSINESS AND ECONOMICS**

**FOR THE DEGREE OF BACHELOR OF BUSINESS MANAGEMENT**

**COURSE CODE: BBM 345**

**COURSE TITLE: LOGISTICS AND INVENTORY MANAGEMENT**

**EXAMINATION DURATION: 2 HOURS**

**DATE: 07/04/2021 TIME: 12.00-2.00 PM**

**INSTRUCTION TO CANDIDATES**

* **The examination has FIVE (5) questions**
* **Question ONE (1) is COMPULSORY**
* **Choose any other TWO (2) questions from the remaining FOUR (4) questions**
* **Use sketch diagrams to illustrate your answer whenever necessary**
* **Do not carry mobile phones or any other written materials in examination room**
* **Do not write on this paper**

**This paper consists of TWO (2) printed pages *please turn over***

**QUESTION ONE (COMPULSORY)**

The computer company Dell has long been seen as one of the most agile businesses in the industry. The success of Dell is in large part due to its highly responsive supply chain, which is capable of building and delivering customized products in a matter of days with minimal inventory. Dell’s ability to operate a build-to-order strategy is based partly on the modular design of many of their products but more particularly on a very high level of synchronization with their suppliers. There is a high level of visibility across the Dell supply chain with suppliers receiving information on Dell’s order book every two hours. Ahead of this information, suppliers are provided with capacity forecasts from Dell to enable them to produce at a rate that is planned to match actual demand. Each of Dell’s factories is served from a ‘vendor hub’, operated by third-party logistics service providers, the purpose of which is to keep a buffer of inventory from which Dell can draw as required. Suppliers are required to keep a defined level of inventory at these hubs and Dell only takes ownership of the inventory when it reaches their factories. Dell adopts a very proactive approach to demand management by using the price mechanism to regulate demand for specific products or features. If a product is in short supply the price will rise and/or the price of an alternative substitute product will fall. This facility to actively manage demand enables a very close matching of supply and demand.

**Required;**

1. Each of Dell’s factories is served from a ‘vendor hub’, operated by third-party logistics service providers, highlight any five roles of 3PLs (5 marks)
2. Explain seven developing trends in logistics you would advise the management of dell to pay attention to (7 marks)
3. Suggest to Dell four models that they can use manage stock levels and inventory (8 marks)
4. To be effective, inventory management must have some requirements. Discuss five of these requirements (10 marks)

**QUESTION TWO**

1. The Economic Order Quantity (EOQ) calculates the inventory order volume which minimizes the sum of the annual costs of holding inventory. Explain five assumptions made by the model (10 marks)
2. Fleet management can provide massive benefits to your business. Discuss five advantages of a fleet management system (10 marks)

**QUESTION THREE**

1. Discuss the factors considered when assessing and selecting modes of transport (10 marks)
2. Define Inter-modal transportation and explain the four types of intermodal transportation (10 marks)

**QUESTION FOUR**

1. Unitization and consolidation of goods entail the process of combining goods into standard units which are larger and similar. Explain five reasons for unitization and consolidation (10 marks)
2. Discuss the advantages of palletization (10 marks)

**QUESTION FIVE**

1. Highlight five factors affecting the choice of a packaging method (10 marks)
2. Hazardous goods are goods that are in a position or capable of causing harm to humans, animals and environment if poorly handled. Explain examples of goods categorized as hazardous in logistics (10 marks)