



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2023/2024

- COURSE NAME : LOGISTICS DISTRIBUTION AND
PROCUREMENT MANAGEMENT
- COURSE CODE : BPF 30603
- PROGRAMME CODE : BPA
- EXAMINATION DATE : JULY 2024
- DURATION : 3 HOURS
- INSTRUCTIONS :
1. ANSWER ALL QUESTIONS
 2. THIS FINAL EXAMINATION IS
CONDUCTED VIA
 Open book
 Closed book
 3. STUDENTS ARE **PROHIBITED** TO
CONSULT THEIR OWN MATERIAL
OR ANY EXTERNAL RESOURCES
DURING THE EXAMINATION
CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

- Q1** Distribution centres (DCs) and warehouses are integral components of the logistics and supply chain network, serving as strategic nodes that facilitate the efficient movement and storage of goods.
- (a) Explain **THREE (3)** significance of distribution centers and warehouses in optimizing logistics operations with examples.
(9 marks)
- (b) Differentiate **THREE (3)** cost components involved in logistics operations, using cost relationships as a framework.
(12 marks)
- Q2** You are a logistics consultant advising a company on the design and operation of its warehouses. The company deals with both temperature-sensitive products and dangerous goods. They seek your expertise in understanding the special design features required for temperature-controlled warehouses and dangerous goods warehouses.
- (a) Describe **THREE (3)** unique design requirements for dangerous goods warehouses with examples.
(9 marks)
- (b) Contrast between temperature-controlled warehouses and dangerous goods warehouses.
(12 marks)
- (c) Outline **TWO (2)** safety measures for dangerous goods warehouses to ensure compliance with regulations and minimize risks associated with storing hazardous materials.
(10 marks)
- Q3** In 2018, Amazon faced a security breach at one of its distribution centres in the United States. The breach occurred due to inadequate perimeter fencing and unsecured gates, allowing unauthorized individuals to gain access to the facility. As a result, several delivery vans were stolen, and valuable inventory was pilfered, causing significant financial losses for the company. Amazon's reputation also suffered as news of the security breach spread, leading to concerns among customers about the safety of their packages and personal information. The incident underscored the importance of implementing stringent security measures in distribution centres to protect against criminal activity and ensure the integrity of supply chain operations.
- (a) Outline **THREE (3)** security challenges faced by Amazon distribution centres (DCs) and the potential risks associated with unrestricted access to the premises.
(12 marks)
- (b) Examine **TWO (2)** importance of investing in robust security infrastructure and protocols to ensure the safety and security of Amazon DCs operations.
(10 marks)

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Q4 Tesla, Inc., a prominent electric vehicle (EV) manufacturer renowned for its innovative approach to sustainable transportation and energy solutions, maintains a global presence through manufacturing facilities and Gigafactories across multiple continents, while also sourcing materials and components from various suppliers worldwide.

The company fosters long-term partnerships with suppliers who demonstrate a commitment to innovation, sustainability, and quality, establishing procurement objectives aimed at diversifying its supplier base, reducing dependency on single sources, and implementing robust risk management practices.

To achieve these objectives, Tesla conducts thorough supplier evaluations, assesses geopolitical risks, and develops contingency plans to address potential disruptions, such as natural disasters, geopolitical tensions, or changes in regulatory environments. Additionally, the company emphasizes joint research and development initiatives, co-design projects, and supplier summits to explore new materials, technologies, and manufacturing processes.

Tesla implements Vendor Managed Inventory (VMI) practices to optimize inventory management and ensure the timely availability of materials and components from its suppliers. Through VMI, Tesla's suppliers take responsibility for managing inventory levels at Tesla's facilities, closely monitoring demand signals, and replenishing stock as needed, thus reducing inventory holding costs while improving supply chain efficiency and responsiveness.

Emphasizing standardization and product specification, Tesla streamlines procurement processes, enhances product consistency, and facilitates compatibility across its product lines. By establishing standardized specifications for materials, components, and manufacturing processes, Tesla ensures greater efficiency in procurement, production, and assembly, thereby maintaining consistency in quality, performance, and safety across its vehicles and energy products.

To manage its global supply chain effectively, Tesla employs a variety of modes of transport, carefully selecting air freight, sea freight, rail transport, and road transport based on factors such as distance, urgency, and cost considerations. Each mode of transport is chosen to suit the specific logistics requirements of Tesla's supply chain operations.

Tesla negotiates competitive pricing with its suppliers to optimize procurement costs while maintaining quality and sustainability standards, leveraging its purchasing power and economies of scale to secure favourable terms. Additionally, the company adopts Just-in-Time (JIT) delivery practices to minimize inventory holding costs and reduce lead times, ensuring materials and components are delivered precisely when needed, thus improving operational efficiency.

- (a) Examine **THREE (3)** procurement key objectives pursued by Tesla Inc. in aiming to optimize inventory levels, enhance supply chain efficiency, and fostering collaboration with suppliers.

(15 marks)

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- (b) Recommend Tesla's approach to supplier selection and quality assurance criteria contribute to the company's supply chain resilience and product quality.
(5 marks)
- (c) Evaluate the impact of standardization and product specification on Tesla's supply chain efficiency and product consistency.
(6 marks)

- END OF QUESTIONS -

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