Reg. No.															

Question Paper Code	14160

MBA - DEGREE EXAMINATIONS, NOV / DEC 2025

Third Semester

Master of Business Administration

24MBO301 – GLOBAL SUPPLY CHAIN AND LOGISTICS MANAGEMENT

Regulations - 2024

Duration: 3 Hours Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks	K – Level	CO
1.	State the objectives of logistics management in a manufacturing firm.	2	K1	CO1
2.	How does a company decide whether to make or buy when outsourcing a logistics function?	2	K1	CO1
3.	List the advantages of hub-and-spoke model.	2	K1	CO2
4.	Describe how distribution networks add value to an e-commerce business.	2	K2	CO2
5.	How Vendor Managed Inventory helps both supplier and retailer?	2	K1	CO3
6.	Describe how virtual warehousing benefits online retailers like Amazon.	2	K2	CO3
7.	Show how packagingdesign reduces transportation costs.	2	K1	CO4
8.	Outline the 6 Rs of logistics and illustrate anyone with a short example.	2	K2	CO4
9.	How reverse logistics supports sustainability?	2	K1	CO5
10.	Outline the role of ERP in supply chain operations.	2	K2	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

			Marks	K – Level	CO
11.	a)	Examine how key performance drivers such as inventory, facilities, and transportation influence supply chain performance in FMCG firms.	13	K4	CO1
		OR			
	b)	Discover how effective supply chain strategies can enhance competitive advantage using an example.	13	K4	CO1
12.	a)	Apply distribution network design principles to develop a supply chain plan for an e-commerce startup.	13	K3	CO2
		OR			
	b)	Make use of examples to show how decision trees assist managers in supply chain risk analysis.	13	K3	CO2
13.	a)	Analyze how Economic Order Quantity (EOQ) principles can be applied to minimize total inventory cost for a product scenario.	13	K4	CO3
		OR			

b) Examine the causes and consequences of the bullwhip effect with a real-world illustration. *13 K4 CO3*

14. a) Evaluate how vehicle routing and scheduling techniques can be used to minimize distribution time in a logistics company. *13 K5 CO4*

OR

b) Explain how transportation mode selection affects overall supply chain performance. *13 K5 CO4*

15. a) Evaluate how the concept of Supply Chain Integration can be used to design a collaborative model for a global manufacturing firm. *13 K5 CO5*

OR

b) Explain how ERP and EDI enhance data visibility and decision-making in supply chain operations. *13 K5 CO5*

PART - C (1× 15 = 15 Marks)
(Compulsory)

16. a) **Case Study : Zara's Responsive Supply Chain** *15 K5 CO5*

Zara, a global fashion retailer under the Inditex group, is renowned for its ability to design, produce, and deliver new clothing collections to stores worldwide within just a few weeks. Unlike traditional fashion companies that rely on long production cycles and seasonal releases, Zara focuses on rapid design-to-store processes. The company's supply chain operates as a tightly integrated system, with design teams in Spain working closely with production units and logistics hubs. Most of its manufacturing for high-fashion items is located in or near Spain, allowing for faster response to changing customer trends. Zara's logistics center in La Coruña acts as the nerve center of its operations, dispatching products to stores twice a week based on real-time sales data.

One of Zara's key strengths lies in its use of data analytics for decision-making. Each store manager reports customer feedback, preferences, and sales patterns to the central design team daily. This enables designers to adjust styles, fabrics, and sizes quickly according to consumer demand. By maintaining a flexible production system, Zara can create small batches and avoid overproduction, which helps minimize markdowns and unsold inventory. The company's logistics strategy emphasizes speed and precision rather than cost minimization, a rare approach in the apparel industry. Every new item undergoes centralized quality checks before being dispatched globally, ensuring consistency across markets.

Technology plays a crucial role in Zara's logistics efficiency. The use of Radio Frequency Identification (RFID) tags on clothing allows for real-time inventory tracking in stores and warehouses. This digital synchronization reduces the bullwhip effect and ensures that

replenishment orders are generated automatically. Zara also relies on an advanced transportation network, using air freight for high-demand fashion items and trucks for replenishing nearby markets. By doing so, the company maintains a steady flow of goods while ensuring that customer shelves remain stocked with the latest designs. However, such a high-speed supply chain also comes with environmental and cost challenges, particularly regarding carbon emissions and waste generation.

In recent years, Zara has taken steps toward sustainability by introducing eco-efficient stores and recycling programs. The brand now faces the challenge of balancing its fast fashion model with the global demand for environmentally responsible practices. As customers become more conscious of sustainability, Zara must rethink its logistics and production strategies to maintain both responsiveness and ethical responsibility. The case of Zara illustrates that agility, data-driven decision-making, and vertical integration can provide competitive advantage—but these must evolve continuously to align with new market and environmental realities.

Questions

1. How can Zara maintain its fast-response supply chain while adopting sustainable logistics practices?
2. What lessons can other global retailers learn from Zara's integration of data analytics and logistics strategy?