

# **23BAE743 Logistics and Supply Chain Management**

## **Question Bank - Unit 3**

### **2 Mark Questions & Answers, 16 Mark Questions**

#### **INTEGRATION OF LOGISTICS AND SCM**

1. What is the definition of integrated supply chain design?

Integrated supply chain design refers to the coordination and alignment of all key elements in the supply chain, including suppliers, production, logistics, and customer service, to ensure a seamless flow of materials, information, and resources across the entire supply chain.
2. What is the role of logistics in supply chain management (SCM)?

Logistics in SCM is responsible for the efficient movement, storage, and delivery of goods, ensuring that products are available at the right time and in the right place, optimizing costs and improving customer satisfaction.
3. What is the difference between logistics and supply chain management (SCM)?

Logistics primarily focuses on the movement and storage of goods, while supply chain management encompasses the broader coordination of all activities across the supply chain, from raw materials procurement to product delivery to end customers.
4. Define mass customization in the context of supply chain management.

Mass customization is a strategy that combines the efficiency of mass production with the ability to customize products to individual customer specifications, allowing companies to meet diverse customer needs without sacrificing cost-effectiveness.
5. What does the customer relationship process involve in an integrated supply chain design?

The customer relationship process involves managing interactions with customers, understanding their needs, and ensuring that products or services meet those needs through efficient order fulfillment, communication, and after-sales support.
6. What is the supplier relationship process in supply chain management?

The supplier relationship process involves selecting, managing, and maintaining relationships with suppliers to ensure a consistent supply of quality materials and services that meet production needs and timelines.
7. What is the focus of strategic supply chain strategies?

The focus of strategic supply chain strategies is to align supply chain operations with the overall business objectives, optimizing cost, quality, and speed while enhancing customer satisfaction and gaining a competitive advantage.

8. How does Amazon's inventory management system work?

Amazon's inventory management system uses advanced technologies such as real-time data tracking, predictive analytics, and automation to optimize stock levels, reduce stockouts, and ensure fast delivery times to customers.

9. What is the concept of lean supply chains?

Lean supply chains focus on minimizing waste, reducing inventory, and improving process efficiency through practices like just-in-time inventory, continuous improvement, and reducing unnecessary steps in the supply chain.

10. What is the difference between outsourcing and offshoring in supply chains?

Outsourcing involves contracting third-party vendors to handle specific business functions, while offshoring refers to relocating those functions to a different country, often to take advantage of lower labor costs or specialized skills.

11. Define virtual supply chains.

Virtual supply chains are digital networks that leverage technology to enable companies to connect with suppliers, customers, and other partners in real-time, allowing for efficient collaboration, information sharing, and decision-making without the need for physical infrastructure.

12. Explain the importance of the order fulfillment process in supply chain management.

The order fulfillment process is crucial in ensuring that customer orders are accurately processed, packed, and delivered on time. It impacts customer satisfaction, retention, and the overall efficiency of the supply chain.

13. How does Amazon's inventory management system contribute to its supply chain success?

Amazon's inventory management system contributes to supply chain success by providing real-time data, allowing for accurate demand forecasting, minimizing stockouts, and enabling faster order processing and delivery through automated warehouses and predictive analytics.

14. How does the supplier relationship process affect supply chain performance?

The supplier relationship process affects supply chain performance by ensuring reliable and high-quality material supplies, reducing lead times, and fostering collaboration to solve problems, thus enhancing efficiency and reducing costs across the supply chain.

15. What is the relationship between customer relationship management and integrated supply chain design?

Customer relationship management (CRM) in an integrated supply chain design helps maintain strong customer relationships by ensuring timely deliveries, managing customer expectations, and providing responsive service, leading to increased customer loyalty and satisfaction.

16. Explain the role of supply chain strategies in achieving competitive advantage.

Supply chain strategies help a company achieve a competitive advantage by optimizing operations such as cost reduction, improving product quality, enhancing delivery speed, and offering superior customer service, which collectively contribute to differentiating the company in the market.

17. How does mass customization affect supply chain design?

Mass customization requires a supply chain design that is flexible and responsive, able to handle customer-specific requirements while maintaining efficiency. This often involves using modular components and advanced manufacturing technologies to meet individualized demands without increasing costs.

18. What is the impact of lean supply chains on operational efficiency?

Lean supply chains improve operational efficiency by eliminating waste, reducing inventory levels, streamlining processes, and enhancing flow, all of which result in lower costs, faster production cycles, and improved product delivery times.

19. Describe the concept of offshoring in supply chain management.

Offshoring in supply chain management refers to relocating business functions, such as manufacturing or customer service, to a foreign country, typically to reduce operational costs or access specific resources or expertise.

20. How does a virtual supply chain differ from a traditional supply chain?

A virtual supply chain relies on digital tools and technologies to connect stakeholders in real-time, enabling flexible, global collaboration and decision-making. In contrast, a traditional supply chain often relies on physical infrastructure and linear communication methods.

21. Explain the concept of integration in supply chain design.

Integration in supply chain design refers to coordinating and aligning different parts of the supply chain—such as suppliers, manufacturers, and distributors—into a unified system to enhance efficiency, responsiveness, and communication.

22. What role does logistics play in supply chain management?

Logistics in SCM is responsible for the transportation, storage, and delivery of goods, ensuring that products are available in the right quantity, at the right time, and in the right place to meet customer demand.

23. What is a key difference between logistics and supply chain management?

Logistics is concerned specifically with transportation and warehousing, while supply chain management also includes supplier relationships, production, and customer service, creating an end-to-end flow of goods and information.

24. What is the purpose of supply chain strategies?

Supply chain strategies aim to align supply chain operations with business goals, optimize resource usage, reduce costs, and enhance product quality and customer service, contributing to a competitive advantage.

25. How does Amazon manage its inventory efficiently?

Amazon manages its inventory using advanced forecasting algorithms, real-time tracking, automated warehouses, and a vast distribution network to maintain optimal stock levels and ensure quick delivery to customers.

26. What technology does Amazon use to optimize its inventory management?

Amazon uses technologies such as RFID, data analytics, machine learning, and artificial intelligence to track inventory in real-time, predict demand, and optimize stock levels across its network of fulfillment centers.

27. What is a lean supply chain?

A lean supply chain focuses on eliminating waste, reducing inventory, and improving efficiency by streamlining processes and removing any non-value-adding activities in the supply chain.

28. What is outsourcing in supply chain management?

Outsourcing is the practice of contracting external vendors to perform specific tasks or services, such as manufacturing or customer support, in order to reduce costs or access specialized expertise.

29. What is a virtual supply chain?

A virtual supply chain is a digital network that uses technology to connect suppliers, manufacturers, and customers, allowing for real-time information sharing, collaboration, and decision-making without the need for physical infrastructure.

30. How do lean supply chains benefit companies in competitive markets?

Lean supply chains reduce waste, improve efficiency, and cut costs, allowing companies to offer lower prices, quicker deliveries, and higher-quality products, thereby improving competitiveness in the market.

### **Part – B**

1. Describe the key components of a supply chain and explain the role of each in the overall process.
2. Explain the concept of lean supply chain management and its significance in reducing waste and improving efficiency.

- 3.** How would you apply the principles of Just-in-Time (JIT) inventory management in a manufacturing company to optimize stock levels?
- 4.** Analyze the impact of poor demand forecasting on a company's supply chain, particularly focusing on inventory levels, customer satisfaction, and costs.
- 5.** Design a strategy to integrate Green Supply Chain Management (GSCM) principles into a company's existing supply chain while maintaining cost-effectiveness.
- 6.** Evaluate the effectiveness of third-party logistics (3PL) providers in enhancing a company's supply chain efficiency, considering factors like cost, flexibility, and customer service.
- 7.** What are the different types of inventory, and how do they contribute to the smooth operation of a supply chain?
- 8.** Discuss the relationship between transportation management and customer satisfaction in a global supply chain context.
- 9.** How can a company use technology, such as blockchain or IoT, to enhance transparency and traceability within its supply chain?
- 10.** Compare the benefits and challenges of centralized vs. decentralized supply chain models in terms of operational efficiency and cost control.
- 11.** Propose a solution for a company facing issues with inventory overstocking and stockouts due to fluctuating demand patterns.
- 12.** Assess the role of Supplier Relationship Management (SRM) in improving the sustainability and cost-effectiveness of a company's supply chain.
- 13.** List and explain the various factors that affect transportation cost in a supply chain.
- 14.** Describe how Sales and Operations Planning (S&OP) can align demand forecasting, production planning, and inventory management in a company.
- 15.** Develop a plan for integrating sustainable logistics practices into a company's existing transportation strategy without sacrificing cost efficiency.