School of Business
MBA
ETE - Jun 2023

Time : 3 Hours   **Marks : 50**

Sem II - MSB22T1002 - Foundation of Logistics and Materials Management
Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1. Describe at least three supply chains that provide products to your school book store. Do they use cooperative supply chain methods to help reduce their costs?   K2 CO2 (2)

2. What are five typical characteristics of the production planning problem?   K2 CO3 (2)

3. How do the production plan and the MPS relate to sales and to the sales forecast?   K2 CO5 (2)

4. Explain the concept of reverse logistics and its role in managing service operations within the supply chain.   K2 CO1 (2)

5. What are stockout costs and capacity-associated costs?   K1 CO4 (2)

6. Explain with example a successful cost-saving initiative can be implemented in materials procurement.   K3 CO2 (5)

7. Suppose a manufacturer makes wagons composed of a box body, a handle assembly, and two wheel assemblies. Demand for the wagons is 500 a week. The wheel assembly capacity is 1200 sets a week, the handle assembly capacity is 450 a week, and final assembly can produce 550 wagons a week.   K4 CO3 (6)
a. What is the capacity of the factory?
b. What limits the throughput of the factory?
c. How many wheel assemblies should be made each week?
d. What is the utilization of the wheel assembly operation?
e. What happens if the wheel assembly utilization is increased to 100%?

8. Discuss how frequently should ABC analysis be conducted to ensure its effectiveness in materials management.   K4 CO1 (5)

9. Read the following case study and answer the questions that follow: K4 CO5 (8)
Case Study: XYZ Company is a global manufacturer of electronic devices. They are facing challenges in managing their inventory due to fluctuations in demand and long lead times from their suppliers. As a logistics manager, how would you address these challenges and improve the company's inventory management?

1. What strategies would you recommend to XYZ Company for demand forecasting and managing inventory levels?
2. How would you optimize the company's supplier relationships to mitigate the impact of long lead times?
3. Identify and explain two key performance indicators (KPIs) that you would use to measure and monitor the effectiveness of the company's inventory management efforts.

10. Reverse logistics has gained significant importance in recent years. Discuss the concept of reverse logistics and its role in managing product returns, recycling, and waste reduction. Provide examples of challenges and opportunities associated with reverse logistics implementation.   K5 CO5 (8)

11. Construct the role of technology in managing service operations. Discuss how organizations can leverage technology to enhance service quality, improve operational efficiency, and enhance the overall customer experience.   K5 CO4 (8)