

Plot No. 2, Knowledge Park-III, Greater Noida (U.P.) –201306

POST GRADUATE DIPLOMA IN MANAGEMENT (2024-26)
MID TERM EXAMINATION (TERM -IV)

Subject Name: **Supply Chain Management**

Time: **01.00 hrs**

Sub. Code: **PG41**

Max Marks: **20**

Note: Read the following case and answer the following questions:

10×2 = 20 Marks

Kindly write the all the course outcomes as per your TLEP in the box given below:

COs	Statement of Course Outcomes	Bloom's Taxonomy
CO-1	Understand theoretical and basic elements of supply chain management. Recognize and understand the practice of supply chain management systems to meet the customers' and stakeholders' expectations.	Remember-L-1, Understand-L-2
CO-2	To apply theoretical knowledge in the key decision-making areas like plant location, layout planning, Inventory and capacity planning, and project management for effectiveness in operational management.	Apply- L-3
CO-3	Develop the analysis to assess and solve supply chain-related problems effectively and efficiently.	Analyze-L-4, Create-L-6
CO-4	To analyze the supply chain data with mathematical models	Analyze-L-4
CO 5	To understand and justify the supply chain design process	Evaluate-L-5
CO 6	To understand and apply advanced Analytics for strategic decision-making and AI for improving overall business performance	Apply-L-3

Case Study 1: Sunrise Bakers CO1

Sunrise Bakers is a small family-run business in Jaipur that supplies fresh bread, cakes, and bakery items to around 400 households, restaurants, and small shops. The bakery has been in operation for 15 years under the management of Mr. Ramesh Bhandari. His business offers a combination of goods (baked products) and services (doorstep delivery and customized orders).

At the center of operations is a basic information system that records all customers' regular orders, addresses, and payment details. Every evening, the system calculates the total requirements for the next two days. Based on this, Mr. Ramesh purchases raw materials (flour, sugar, yeast, milk, butter) from wholesalers in the city. To avoid shortages, he adds a small margin of safety stock.

The bakery prepares products overnight, which are then loaded into small vans with cooling boxes at 5.00 am. Deliveries to households are completed before 9.30 am, while supplies to restaurants and shops continue until noon. On weekends, when there is higher demand, deliveries take longer, and additional helpers are employed.

Problems faced:

Demand variation: On festivals or holidays, demand for cakes and sweets increases sharply, making forecasting difficult.

Short shelf life: Unsold bakery items must often be discarded, increasing wastage.

Logistics disruptions: Traffic congestion delays deliveries, especially during peak hours.

Rising competition: Supermarkets and online food delivery apps attract many of his regular customers.

Labour dependency: Delivery depends on a few helpers; if they are absent, service is affected.
To tackle these challenges, Mr. Ramesh has started experimenting with online pre-orders, discounts on bulk purchases, and a loyalty scheme to retain customers.

Questions

Q. 1: (A). Describe the supply chain for Sunrise Bakers. (5 Marks)

Q. 1: (B). What are the main logistics problems that Sunrise Bakers faces? (5 Marks)

Case Study 2: AutoSpare Parts Ltd. CO2

AutoSpare Parts Ltd. is a medium-sized company based in Pune that supplies automobile spare parts to car repair workshops and retailers. The company deals with around 3,000 different parts such as filters, brake pads, spark plugs, and engine oils. For the last 10 years, it has operated on a traditional inventory system, where large stocks are kept in its central warehouse.

However, the company faces a serious inventory problem. Many fast-moving parts are often out of stock, causing delays in supply to customers, while slow-moving parts pile up in the warehouse, blocking space and increasing holding costs. In some cases, parts become obsolete before they are sold, resulting in losses.

To solve this, the management decided to adopt a Just-in-Time (JIT) supply chain system with selected suppliers. Under this arrangement, suppliers deliver parts in smaller quantities but more frequently, based on real-time customer demand. The company also upgraded its information system so that sales orders automatically trigger supplier orders. This helped in reducing excess inventory, freeing warehouse space, and lowering wastage.

Still, JIT brings new challenges:

Supplier dependency – If a supplier fails to deliver on time, AutoSpare cannot meet customer orders.

Transport costs – Frequent small deliveries have increased transportation expenses.

Uncertain demand – Sudden spikes in customer orders are difficult to handle with low inventory.

Despite these issues, the company continues to refine its JIT model because it reduces waste, improves cash flow, and makes operations more efficient in the long run.

Questions

Q. 2: (A). Describe the supply chain of AutoSpare Parts Ltd. before and after adopting JIT. (5 Marks)

Q. 2: (B). What inventory-related problems did the company face, and how does JIT help to solve them? (5 Marks)

Kindly fill the total marks allocated to each CO's in the table below:

COs	Marks Allocated
CO1	10 Marks
CO2	10 Marks

Blooms Taxonomy Levels given below for your ready reference:

L1= Remembering

L2= Understanding

L3= Apply

L4= Analyze

L5= Evaluate

L6= Create