

JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA  
PGDM / PGDM (M) / PGDM (SM)  
FOURTH TRIMESTER (Batch 2023-25)  
END TERM EXAMINATIONS, SEPTEMBER, 2024  
SET-2

Course Name	Supply Chain Management	Course Code	20522
Max. Time	2 hours	Max. Marks	40 MM

**INSTRUCTIONS:**

- Attempt all four questions.
- Distribution of marks for each question mentioned in the bracket.
- It is closed book / notes exam, no mobile/ electronic / digital medium is allowed. Only calculators are allowed.
- Answers should be rich in content, precise and to the point.

Q1)

Krishna Ayurveda Ltd (KAL) is an Indian company, based in Delhi. The company is a wholeseller and sells specialized ayurvedic cosmetics (P-1), personal care (P-2) and health supplement products (P-3). KAL do not manufacture products itself but has outsourced manufacturing to a manufacturer in Haridwar, Uttarakhand.

In Delhi NCR market, demand of P-1 is 5000 units a year, P-2 is 2000 units a year and P-3 is 800 units a year. KAL uses FTL road transportation to transport goods from Haridwar to its depot in Delhi. A fixed transportation cost of Rs 8000 is incurred each time an order is delivered. Presently, each product is ordered and delivered separately from Haridwar to KAL's depot in Delhi.

KAL is considering aggregating all three products in a single order i.e. delivery of three products from Haridwar to Delhi NCR on a single truck. Average product cost per unit is INR 200 per unit and holding cost at the KAL's depot is 20 percent. For each product ordered and delivered on the same truck, an additional fixed cost of Rs 1000 is incurred for receiving and storage.

Evaluate the optimal order size for each product if all three products are ordered jointly in a single order. Determine the overall annual inventory related costs (annual ordering costs + annual inventory holding costs) of this plan for KAL.

(Marks: 10)

Q2)

Wal-Mart and Seven Eleven Japan are renowned global retail chains whose success can be attributed to best practices in supply chain management. Both supply chains have achieved good strategic fit between their competitive strategy and supply chain strategy by implementing decisions in regards to various supply chain drivers.

2.1) Evaluate and differentiate the competitive strategy and supply chain strategy of Wal-Mart ("Supercentres" retail format only) and Seven Eleven Japan.

2.2) Analyse supply chain strategic decisions related to various supply chain drivers which these two supply chains have taken to achieve strategic fit between their competitive strategy and supply chain strategy.

**Q3)**

3.1) A new technology allows books to be printed in 10 minutes. Barnes and Noble has decided to purchase these machines for each store. It must decide which books to carry in stock and which books to print in demand using this technology. Do you recommend it for best sellers or for other books? Why?

3.2) Examine the Managerial levers to reduce safety inventory for a given service level.

(Marks: 4+4)

**Q4)**

Mumbai based Sky-Craft is a manufacturer of designer leather bags. The company utilizes "Drop Shipping" to fulfill orders placed by its customers through its website. Its manufacturing unit is in Mumbai and customers orders are drop shipped directly to customer premises using package carriers.

Due to the increased demand of its products, the company has opened distribution centres at each of the four metro cities. It has also built required information infrastructure to support its logistics network. Now, those products whose inventory is available at DCs are shipped directly from DC to customer's premises using package carriers i.e. "Distributor Storage with Carrier Delivery"

a) Analyse and compare the two distribution strategies in terms of various supply chain costs involved.

b) Analyse and compare the two distribution strategies in terms of various customer value or service factors.

(Marks: 4+4)