



**INDIAN INSTITUTE OF MATERIALS MANAGEMENT**  
**Post Graduate Diploma in Logistics & SCM– 2years**  
**Paper 18 (Enrollment Code: PSM)[ ONLINE EXAM]**  
**Advanced SCM & Logistics**

**Dec 2023**

**Date:** 19.12.2023  
**Time:** 2.00 pm to 5.00 pm

**Max. Marks 70**  
**Duration 3 hours**

**Instructions**

1. Part A is compulsory. Each sub question carries one mark.
2. In Part B answer any 3 questions . Each question carries 10 marks
3. Part C is a case study with sub questions and it is compulsory.

**Total marks-20**  
**Total marks-30**  
**Total marks-20**

**PART A**

**(20 marks)**

**Q. 1. Fill in the blanks.**

**[5 marks]**

- a) The two drivers of a supply chain are \_\_\_\_\_ and \_\_\_\_\_
- b) \_\_\_\_\_ is the technique of using borrowed funds
- c) Time required to complete the entire process is called \_\_\_\_\_ time
- d) A good method to validate the forecast is the \_\_\_\_\_ method
- e) \_\_\_\_\_ is the process of making predictions.

**Q. 2. State True or False**

**[5 marks]**

- a) Strategic alliances are a symbiotic relationship between the partners
- b) Agents, retailers and whole sellers involved in distribution are called intermediaries.
- c) Push system is also called consumer centric system
- d) Uncertainty in network design decision making process can be identified using a decision tree
- e) Functional products have a fast technology clock speed

**Q. 3. Match the following:**

**[5 marks]**

	Column A		Column B
A	Inventory turnover ratio	1	Farther the supply chain partner, greater is the error
B	Intermodal	2	Transports small packages from letters to shipments weight of around 150 pounds
C	Air	3	Uses more than one mode of transportation
D	Bullwhip effect	4	Transport carries shipment under 500 pounds
E	Package carrier	5	Measurement matrix of a supply chain

**Q.4. Expand the following:**

**[5 marks]**

- (i) SCOR      (ii) SKU      (iii) LTL      (iv) DCOR      (v) CPFR

## **PART B**

**(Total 30 marks)**

**(Answer any three. Each question carries 10 marks)**

- Q.5.** a) What do you understand by process cycle time? Suggest some ways in which you can identify the process cycle time [5 marks]  
b) Explain the facility related matrices of a supply chain. [5 marks]
- Q.6.** a) What are the various components of transportation cost? Explain [5 marks]  
b) Explain any two qualitative demand forecasting methods. [5 marks]
- Q.7.** a) Explain any TWO approaches to supply chain process restructuring [5 marks]  
b) Explain the 4C framework of strategic alliances [5 marks]
- Q.8.** a) Compare and contrast efficient supply chain with a responsive supply chain [5 marks]  
b) What is a distribution channel? Explain some factors which will influence distribution network design [5 marks]
- Q.9. Write Short Notes any two. [2 x 5 =10 marks]**
- A) Errors in forecasting  
B) Push and pull systems of a supply chain  
C) Mass customization  
D) Vendor Managed Inventory

## **PART C**

**(20 marks)**

### **Q.10 Case Study (compulsory)**

Mr Giorgio, the recently appointed Director of Logistics of M/s Barilla Pastas was frustrated. He had minutely studied the distribution system at Barilla and had proposed a new system which he called JITD, Just in time distribution. He had proposed that instead of delivering products to their distributors on the basis of whatever orders the distributors placed, Barilla's own Logistics Dept would specify the "appropriate" delivery quantities – those that would more effectively meet the end customer's needs and at the same time distribute the workload and costs on Barilla's manufacturing and logistics systems more evenly. He claimed that a 5% reduction in supply chain cost will double the profits of Barilla

The distributors were angry. They refused to provide sales data upon which Barilla could make delivery decisions and improve demand forecasting. Barilla's own sales and Marketing was resisting. Everyone felt that their importance and necessity would be eroded and power will shift to the Logistics Dept

### **Questions :**

- Q1. Suggest 5 ways in which supply chain costs can be reduced [5 marks]  
Q2 Explain briefly the various components of transportation costs [5 marks]  
Q3 Explain any TWO types of distribution networks [5 marks]  
Q4 Why is Mr Giorgio asking for data from the distributors? [5 marks]

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