



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics & SCM
Paper 18 (Enrollment Code: PSM, CSM)
Advanced SCM & Logistics

Dec 2025

Date: 22.12.2025
Time: 2.00 pm to 5.00 p.m

Max. Marks 70
Duration 3 hours

Instructions

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| 1. Part A is compulsory. Each sub question carries one mark. | Total marks-20 |
| 2. In Part B answer any 3 questions. Each question carries 10 marks | Total marks-30 |
| 3. Part C is a case study with sub questions and it is compulsory. | Total marks-20 |

PART A

(20 marks)

Attempt all questions. Each sub-question carries 1 mark.)

Q. 1. Select the appropriate option. [5 marks]

- a) Which of the following is a reason for carrying safety stock?
 (i) To improve stock-holding levels (ii) To improve stock accuracy levels
 (iii) To cater for demand forecast errors (iv) To cater for a large storage capacity

- b) Supply chain mapping means the study of -----
 (i) Logistics network (ii) Activities sequence
 (iii) Value and non-value added activities (iv) Cost reduction areas.

- c) Air transport is the ----- means of delivery
 (i) Fastest (ii) Costliest (iii) Effective (iv) Fastest and costliest

- d) 3-PL involves using a supplier to provide ----- services
 (i) Logistics (ii) Design (iii) Marketing (iv) Contract manufacturing

- e) Which of the following is **NOT** a part of Logistics Costs?
 (i) Inventory holding cost (ii) Transportation costs (iii) Production costs (iv) Logistics administration costs

Q. 2. State True or False [5 marks]

- a) In Direct Distribution Network, consumers get their products through producer-owned retail stores.
- b) Two-bin system involves identification of stock level at specified periods of time
- c) Transportation is the operational area of logistics that geographically positions inventory
- d) Toyota Supply Chain did not believe in having long-term relationships with suppliers
- e) External integration requires close coordination among suppliers, retailers and distributors

Q. 3. Match the following: [5 marks]

	Column A		Column B
A	Lead Time	1	Graphical representation of data
B	Anticipation inventory	2	Shared benefits
C	Trend Projection	3	Buffer stock for meeting excess demand
D	Push system	4	Period between placement of order and receipt of material
E	Strategic Alliance	5	Producer-centric

Q.4. Expand the following: [5 marks]

- a) SCOR b) EOQ c) AGL d) CFPR e) SKU

PART B

(Total 30 marks)

(Answer any three. Each question carries 10 marks)

Q.5.

- a) Information is potentially the biggest performance driver in the supply chain. Given this statement, explain about the information-related performance metrics of the supply chain **[5 marks]**

- b) Small and medium enterprises (SMEs) are finding it difficult to implement effective SCM practices. In this context, discuss some of the problems being faced by SMEs in SCM implementation and how these can

be overcome.

[5 marks]

Q.6.

- a) Errors in demand forecasting can cause a number of blunders including misallotment of resources in Inventory, transportation, sourcing, pricing, and even in information management. do you agree with this statement? If so, explain some of the factors that responsible for forecast errors. [5 marks]
- b) Transportation cost in supply chain management has four basic components. Explain about each of these cost components with suitable examples. [5 marks]

Q.7.

- a) Organizations enter into strategic alliances as it provides the fastest and most reliable way for business growth. A popular framework for strategic alliance is the 4C framework. In this context, explain the components of strategic alliance. [5 marks]
- b) "Cross-docking" is the strategy used in supply chain to distribute products from suppliers to customers directly. In this context, explain the concept of cross-docking with a neat diagram and discuss the different types of cross-docking. [5 marks]

Q.8.

- a) In the context of developing a framework for supply chain, Professor Marshall Fisher has categorized products into two types – functional and innovative products – and supply chain into two types – efficient and responsive supply chains. In this context, explain the four-cell model (based on these two dimensions) developed by Professor Marshall Fisher, for developing a matching supply chain strategy. [5 marks]
- b) Explain the concept of carrying safety inventory in an organization. Bring out the differences between "Decoupling stocks" and "Anticipation Inventory" in an organization. Give relevant examples. [5 marks]

Q.9.

- a) Explain the concept of "Vendor Managed Inventory (VMI)" and bring out how it benefits both the organization as well as the vendor. Explain how you would proceed to implement VMI in your organization, Give relevant examples. [5 marks]
- b) The COVID-19 pandemic has exposed the weaknesses of a global supply chain network and many organizations are carrying out major re-structuring of their supply chain networks. In this context, discuss some of the future trends that can be expected in SCM. [5 marks]

PART C

(20 marks)

Q.10 Case Study (compulsory)

Read the case given below carefully and answer the questions given at the end.

ABC Ltd is a car manufacturing company. Their distribution system for marketing of finished goods is as follows:

- Finished cars are sent to central warehouse near the factory.
- From here, the finished goods are distributed to 7 regional warehouses in the country.
- Further, there are 27 depots from where the cars are sent to different stockists for sale.

The organization appointed an expert committee to streamline the distribution system. The findings of the committee are:

- Central warehouse, 7 regional warehouses, and 27 depots together have finished stock equal to 105 days all India sales.
- The marketing manager has no time to check the finished goods stock as he is busy with marketing functions.
- Several cars are lying for more than 2 years due to availability of new and better models.
- There are no norms for monitoring the stock positions and Indents for new cars were sent without checking the stocks.

The committee advised to put the finished goods warehousing under a separate Distribution Manager and advised to maintain the finished goods stock at 48 days all India sales in all the warehouses and depots together.

Questions

- a. Whether there is need to reduce existing numbers of warehouses and depots? [4 marks]
- b. What methodology will you suggest to identify and dispose of slow and non-moving stock of cars? [4 marks]
- c. Suggest a method to avoid accumulation of unsold stock in future. [4 marks]
- d. Is the central warehouse required? Why? [4 marks]
- e. Suggest a system for maintaining the stock level to 48 days all India sales at all warehouses and depots together. [4 marks]
