



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Logistics & SCM - 2 years

Paper 18 (Enrollment Code: PSM, CSM)

June 2025

Advanced SCM & Logistics

Date: 24.06.2025

Max. Marks 70

Time: 2.00 pm to 5.00 p.m

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)

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

Q.1 Select the right answers from the given choices

[5 marks]

a) A supply chain is a sequence of firms that perform activities required:

- i. To find products which are similar
- ii. to facilitate wholesalers' inventory selections
- iii. to create and deliver goods to consumers
- iv to support the acquisition of raw materials

b) 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

c) Which usually comes first?

- i. Complete integration
- ii. Segmented integration
- iii. External integration
- iv. Internal integration

d). 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

e) What is Economic Order Quantity?

- i. The size of a standard delivery vehicle
- ii. The optimal size for an order in a simple inventory system
- iii. The order size for a periodic review system
- iv. The order size that minimizes the delivery costs

Q.2. State True or False

[5 marks]

- a) In a typical supply chain, information flows only from producer to customer
- b) Operations decisions involve periods ranging from three months to one year
- c) In Direct Distribution Network, consumers get their products through producer-owned retail stores
- d) Two-bin system involves identification of stock level at specified periods of time
- e) External integration requires close coordination among suppliers, retailers and distributors.

Q.3 Abbreviations – expand it

[5 marks]

a) SKU b) VMI c) MSE d) SCOR e) CPFR

Q.4 Match the following

[5 marks]

	Column A		Column B
1.	Lead Time	A	Vertically integrated firms
2.	Ford Supply Chain	B	Identifying supply chain processes
3.	Long-term forecast	C	Shared Benefits
4	Strategic Alliance	D	Period between placement of order and receipt of material
5	Chain Supply Mapping	E	Larger standard deviation of error

PART B**[Total 30 marks]**

(Answer any three. Each question carries 10 marks)

Q 5.

- a) Enumerate the drivers of supply chain and explain how their performance metrics help in determining the performance of supply chain. **[5 marks]**
- b) What are the key objectives of supply chain management? **[5 marks]**

Q 6.

- a) What do you understand by the term "Demand Forecasting"? What are its characteristics? **[5 marks]**
- b) What is "Strategic Alliance"? What are the reasons which push an organization to go for strategic alliance? **[5 marks]**

Q 7.

- a) What is a distribution system? Explain with the help of neat diagrams, the centralized vs decentralized distribution systems. **[5 marks]**
- b) Discuss the role of IT in Distribution Network Design. **[5 marks]**

Q 8.

- a) What do you understand by Supplier Integration? How does it help in New Product Development? **[5 marks]**
- b) What is Supply Chain Integration? Explain the internal and external integration of Supply Chain. **[5 marks]**

Q 9. Write short notes on any two. (2 x 5 = 10 marks)

- a) Decoupling Inventory
- b) Greening of Supply Chain
- c) Supply Chain Mapping
- d) Global Supply Chain Design

PART C**[20 marks]**

Q 10. Read the case given below carefully and answer the questions at the end.

Truck Manufacturing Company (TMC) is a medium sized specialized Light Commercial truck body manufacturer located in South India with an annual turnover of more than Rs. 500 cr. TMC has about 30 vendors located within a radius of 200 km. The remaining 5 vendors are spread across the country. Its other features are:

- a. The company Manufactures 20% of its final product, components and sub-assemblies to stock.
- b. Builds most final assemblies of major items to order. It has ability to produce high quality final products with engineering modifications to customer's specification.
- c. Has approximately 500 shop employees, 15 departments, and 10 distributors where final mounting truck bodies on chassis are performed
- d. Annually sells 25-50% of its product to the export market (in Nepal, Bhutan, and Sri Lanka)
- e. Experiences problems with delayed delivery from chassis manufacturer Often the delivery time is the contentious issue
- f. Has bottlenecks in the plant and in engineering as the mix of orders and order processing shifts. Sometimes institutional customers also change their requirements at the last minute which are difficult to handle at the last minute

Currently its concerns relate to information, distribution, and performance measurement.

Questions:

1. Highlight on the complexity of managing SCM function TMC **[5 marks]**
2. Suggest architecture for the Management Information System including information flow, material flow, and money flow between various entities **[5 marks]**
3. List some important performance indicators to evaluate the effectiveness of SCM at TMC. **[5 marks]**
4. Give your other suggestions for performance improvement of the company. **[5 marks]**