



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics & SCM– 2years
Paper 22 (Enrollment code: CPS)
Paper 18 (Enrollment Code : PSM)
Advanced SCM &Logistics

Dec 2022

Date: 21.12.2022
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)
[5 marks]

Q. 1. Fill in the blanks.

- a) _____ estimates maximum amount of products that can be processed by a factory.
- b) _____ is the driver of supply chain that deals with inventory movement.
- c) Due to IT and TPL supply chain management has achieved a _____ performance.
- d) _____ model is a casual model.
- e) _____ means conformity in goals of partner organizations.

Q. 2. State True or False

[5 marks]

- a) Aggregate demand forecasts are more accurate. .
- b) Lane operations decisions are for long term.
- c) A supply alliance lowers the overall cost.
- d) Distributers supply goods to retailers.
- e) Factories and warehouses are examples of facilities.

Q. 3. Match the following:

[5 marks]

	Column A		Column B
A	Utilization	1	Qualitative forecast
B	Fill rate	2	Demand amplification
C	Bullwhip effect	3	Retailer-supplier partnership
D	Delphi method	4	Inventory metric
E	Quick response	5	Proportion of used capacity

Q.4. Expand the following:

[5 marks]

- a) EOQ b) VMI c) CPFR d) SCOR e) VICS

PART B

(Total 30 marks)

(Answer any three. Each question carries 10 marks)

Q.5.a) Define supply chain.

[5 marks]

b) What are the drivers of supply chain?

[5 marks]

Q.6.a) What are the decision phases of SCM?

[5 marks]

b) What do you understand by demand forecasting?

[5 marks]

Q.7.a) Discuss role of transportation in supply chain. . [5 marks]

b) Differentiate between push and pull systems. [5 marks]

Q.8.a) Discuss the role of IT in network design. [5 marks]

b) Explain mass customization. [5 marks]

Q.9. Write Short Notes **any two**. [2 x 5 = 10 marks]

A) Supply chain design

B) Seasonal stock

C) Obsolescence cost

D) Supply chain mapping

PART C

(20 marks)

Q.10 Case Study (compulsory)

Deere and Company is known for the supply of machinery that is used in agriculture, construction and forestry. It is also popular for the supply of diesel engines and lawn care equipment. The company was ranked 80th in the Fortune 500 America's ranking in 2004 and 307th in the Fortune Global 500 ranking in 2013. The company is dealing with a mix of heavy machinery for the consumer market and industrial equipment, which is made to order. Retail activity in this company is extremely seasonal because the majority of sales takes place between March and July. The company refilled the inventory of its dealers on a weekly basis using direct shipment and cross-docking operations from the source warehouses. These source warehouses are located near the manufacturing facilities of Deere and Company. But, the workings of this company proved to be costly and slow. The company, therefore, decided to launch an initiative of achieving 10% reduction in the supply chain's cost within four successive years.

The company then undertook a redesign program of the entire supply chain network. This has resulted in the commissioning of intermediate merge centres along with the optimisation of cross-dock terminal locations. During the seasonal peak, the company started consolidating shipments and using break-bulk terminals. It also hired a large number of third-party logistics providers to create a supply chain network that could be optimised strategically at a given point of time. Adopting these changes, the company was able to decrease the inventory of \$1 billion, minimise customer delivery lead times from 10 days to 5 or less and save annual transportation cost of around 5%.

Questions:

1, What is the aim and business of the company?

2. Why retail activity is considered extremely seasonal?
