



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

**June 2023**

**Date: 20.06.2023**  
**Time: 2.00 pm to 5.00 p.m**

**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) \_\_\_\_\_ is the technique of using borrowed funds. Leverage.
- b) \_\_\_\_\_ is the process of making predictions. Forecasting.
- c) \_\_\_\_\_ is the movement of a trucker driving a truck with an empty trailer.
- d) Agents responsible for supplying goods to retailers are \_\_\_\_\_.
- e) In \_\_\_\_\_ system organizations initiate production on customer demand.

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

**[5 marks]**

- a) Inventory consists of raw material and work in progress.
- b) Agents, retailers and whole sellers involved in distribution are called intermediaries.
- c) Tariff and exchange rates are not microeconomic factors.
- d) Demand for woolen clothes in winter is seasonal demand.
- e) Development chain does not focus on new product introduction.

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

**[5 marks]**

	Column A		Column B
A	Pipeline	1	Is an ideal mode of transport for movement of large load at low cost
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	Water	4	Transport carries shipment under 500 pounds
E	Package carrier	5	Is used for movement of crude petroleum products

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

**[5 marks]**

- |         |        |
|---------|--------|
| a) SKU  | b) DFL |
| c) DCOR | d) BTO |
| e). VMI |        |

**PART B**

(Total 30 marks)

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

**Q.5. a) Discuss the concept of supply chain.**

**[5 marks]**

**b) Explain any two metrics of supply chain.**

**[5 marks]**

Q.6. a) What is the importance of SCM in the organization? [5 marks]

b) Explain any two qualitative demand forecasting methods. [5 marks]

Q.7. a) Discuss the importance of operating decisions in the supply chain. [5 marks]

b) Elaborate on different costs associated with transportation. [5 marks]

Q.8. a) Explain any two levels of distribution channels. [5 marks]

b) Briefly discuss the framework of network design. [5 marks]

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

A) Standardization

B) Craft production

C) Cycle inventory

D) Value addition curve

### PART C

(20 marks)

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

One of the world's largest manufacturers of computer chips, Intel needs little introduction. However, the company needed to reduce supply chain expenditure significantly after bringing its low-cost "Atom" chip to market. Supply chain costs of around \$5.50 per chip were bearable for units selling for \$100, but the price of the new chip was a fraction of that, at about \$20.

**The Supply Chain Cost Reduction Challenge:** Somehow, Intel had to reduce the supply chain costs for the Atom chip, but had only one area of leverage—inventory.

The chip had to work, so Intel could make no service trade-offs. With each Atom product being a single component, there was also no way to reduce duty payments. Intel had already whittled packaging down to a minimum, and with a high value-to-weight ratio, the chips' distribution costs could not be pared down any further.

The only option was to try to reduce levels of inventory, which, up to that point, had been kept very high to support a nine-week order cycle. The only way Intel could find to make supply chain cost reductions was to bring this cycle time down and therefore reduce inventory.

**The Path to Cost Reduction:** Intel decided to try what was considered an unlikely supply chain strategy for the semiconductor industry: *make to order*. The company began with a pilot operation using a manufacturer in Malaysia. Through a process of iteration, they gradually sought out and eliminated supply chain inefficiencies to reduce order cycle time incrementally. Further improvement initiatives included:

- Cutting the chip assembly test window from a five-day schedule, to a bi-weekly, 2-day-long process
- Introducing a formal S&OP planning process
- Moving to a vendor-managed inventory model wherever it was possible to do so

**Supply Chain Cost Management Results:** Through its incremental approach to cycle time improvement, Intel eventually drove the order cycle time for the Atom chip down from nine weeks to just two. As a result, the company achieved a supply chain cost reduction of more than \$4 per unit for the \$20 Atom chip—a far more palatable rate than the original figure of \$5.50.

#### Questions:

1, **What are the aim and business of the company?**

2. **What are the challenges faced by the company?**

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