



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Logistics & SCM
Post Graduate Diploma in Materials Management - 2 years
PAPER No 12 (enrolment code -PGMM, PGSM)
Inventory Management

June 2025

Date : 21.06.2025
Time : 10.00 a.m to 1.00 p.m

Max. Marks: 70
Duration : 3 Hrs.

Instructions:

1. From Part A, contains 4 main questions (with 5 sub-questions) each question carries 1 mark Total of 20 marks
2. From part B answer any5 questions out of 5 questions. Each question carries 10 marks – Total of 30 marks
3. Part C –Case study compulsory , answer all questions
-Total 20 marks
3. Use of standard calculator is permitted.

PART – A

[20 marks]

(Compulsory- each sub-question carries one mark)

Q.1. Fill in the blanks (5 Marks)

- Aligning the delivery of materials to the schedule of requirements is called _____ (ii). The ordering quantity which results in the least total cost of the item is called _____
- Classification of inventories based on the unit price of material is called _____ Classification
- In _____ system, the next order is placed when the sum of stock in hand and stock on order becomes lower than the reordering level
- A Bill of Material which shows the parent and its direct components is called _____ Bill

Q.2. Match the following- (5 Marks)

Column A

Column B

1	Manual counting of stores items	a.	forecasting
2	Lost opportunity costs	b.	Pareto's law
3	Open Stores system	c.	Stock verification
4	ABC analysis	d.	Material stored near Production line
5	.Box Jenkins technique	e.	High inventories

Q.3. Expand the following (5 Marks)

- LIFO
- MPS
- ABM
- VMI
- DPMO

Q4. Say True or False (5 Marks)

- Fixing of norms may help in other aspects but doesn't contribute to control of Inventories
- Job shop is characterized by low volume and low variety of goods
- Safety stock takes care of variations in customer preferences
- Understocking cost is a notional cost
- 'P' system is also called Perpetual Review System

PART B

[30 marks]

(Attempt any 3. Each question carries 10 marks)

Q5 a) An automotive company intends to launch a new model of SUV. Which method of forecasting will it use? Explain any TWO methods of Qualitative forecasting (5 marks)

b) ERP systems have evolved as a natural advancement of the MRP and then MRP-II systems. What advantages do ERP systems give to an organization? (5 marks)

Q6 a). The final assembly of a chair requires a leg assembly, a seat and a back assembly. (5 marks)

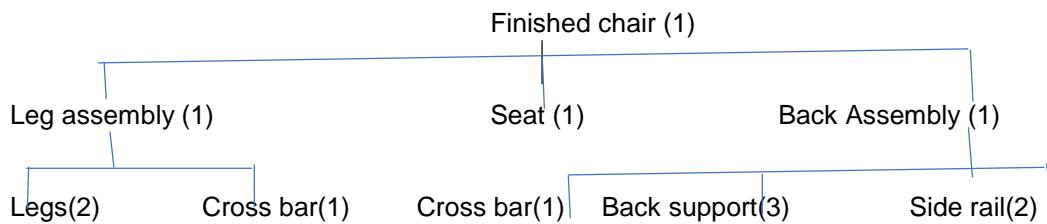
Each leg assembly requires 2 legs and a cross bar.

Each back assembly requires 2 side rails one cross bar and 3 back supports.

On hand inventory – leg assembly – 2 , back assembly -1, cross bars -6, side rails -4, back support -10

i). Draw the Product structure Tree for 10 chairs,

ii) Prepare the Bill of Materials for 10 chairs



b). What is “Negative “stock? Why does it happen? (5 marks)

Q7 a) Cost of the items is only one part of the cost of Inventories. What are the other costs associated with inventories. Write in brief (5 marks)

b) Stock taking, stock valuation and Stock audit are important activities which ultimately influence the profitability of an organization. Explain the relevance of stock valuation (5 marks)

Q8 a) Why should Inventory be controlled? Explain any THREE methods of Inventory control (5 marks)

b) Explain the key Inputs of an MRP system (5 marks)

Q 9 - Write short notes on any TWO – (5x 2=10 marks)

- (i). Vendor Managed Inventory ii). Limitations in Forecasting
- iii). Ishikawa Diagram iv). Kraljic Matrix

PART -C

[20 marks]

(compulsory)

Q.10 Calculate the Inventory carrying cost and ordering cost for a company, whose accounts reveal the following –

- a) No. of Purchase orders issued – 2800
- b) Average inventory value – RS 60,38,240/-
- c) Cost of Purchase Dept personnel – Rs 3,89,200/-
- d) Cost of Receipt & Inspection Dept personnel – RS 79,900/-
- e) Communication & Overheads of Purchase Dept – RS 4,22,000/-
- f) Travelling & follow up expenses – RS 387,289/-
- g) Cost of Stores personnel & stores overhead – RS 489205/-
- h) Taxes & insurance on inventory – 0.5%
- i) Interest rate – 20%
- j) Cost of bill payment – RS 10000/-
- k) Cost of material handling at warehouse – Rs 40000/-
- l) Obsolescence & pilferage – RS 25756/-

Questions:

- i) Calculate the inventory carrying cost as a % of inventory(5 marks)
- ii) Calculate the ordering cost per order(5 marks)
- iii) What is the meaning of economic order quantity? Why is it used? (5 marks)
- iv) What is the limitation of EOQ concept (5 marks)