



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 any 5 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)

- i). 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 _____
- iii). Classification of inventories based on the unit price of material is called _____ Classification
- iv). In _____ system, the next order is placed when the sum of stock in hand and stock on order becomes lower than the reordering level
- v). A Bill of Material which shows the parent and it's 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)

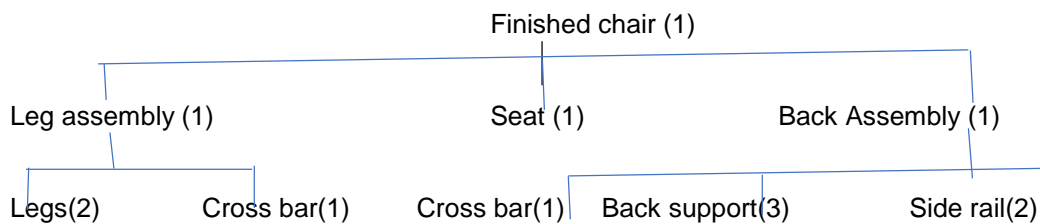
- i). LIFO ii). MPS iii). ABM iv). VMI v). DPMO

Q4. Say True or False (5 Marks)

- i). Fixing of norms may help in other aspects but doesn't contribute to control of Inventories
- ii). Job shop is characterized by low volume and low variety of goods
- iii). Safety stock takes care of variations in customer preferences
- iv). Understocking cost is a notional cost
- v). '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 –
- No. of Purchase orders issued – 2800
 - Average inventory value – RS 60,38,240/-
 - Cost of Purchase Dept personnel – Rs 3,89,200/-
 - Cost of Receipt & Inspection Dept personnel – RS 79,900/-
 - Communication & Overheads of Purchase Dept – RS 4,22,000/-
 - Travelling & follow up expenses – RS 387,289/-
 - Cost of Stores personnel & stores overhead – RS 489205/-
 - Taxes & insurance on inventory – 0.5%
 - Interest rate – 20%
 - Cost of bill payment – RS 10000/-
 - Cost of material handling at warehouse – Rs 40000/-
 - Obsolescence & pilferage – RS 25756/-

Questions:

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