



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Dec 2023

Post Graduate Diploma in Logistics & SCM Post Graduate Diploma in Materials Management - 2 years PAPER No. 12 (enrolment code- PMM, PSM, CMM, CSM)[ONLINE EXAM] **Inventory Management**

Date : 16.12.2023
Time : 10.00 a.m to 1.00 p.m.

Max. Marks : 70
Duration : 3 Hrs.

Instructions:

- From Part A – answer all questions (compulsory). Each sub questions carries 1 mark. **Total : 20 Marks**
- From Part B – Answer any 3 questions out of 5 questions. Each question carries 10 marks. **Total :30 Marks**
- Part C is a case study (compulsory) with questions. Read the case study carefully and answer the questions **Total: 20 Marks**

Part – A

[20 Marks]

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

Q.1 State whether the following statements are True or false. (5 Marks)

- The cost of receiving, unloading at warehouse, quality inspection costs etc are part of Ordering Cost.
- It is not mandatory for Organizations to report value of raw materials, WIP and Finished Goods.
- Inventory Management has **direct** impact on the profitability of the organization.
- Qualitative Method of Forecasting is used for new business, new item.
- MTO is manufacturing strategy where production orders are the result of sales orders.

Q.2 Fill in the blanks (Do not reproduce the Statement) : (5 Marks)

- Stock out cost is part of _____
- _____ These items are small in number but high in value.
- In _____ Wholesaler/Company supplies to Retailer and Retailer pays when goods are sold. But ownership remains with Wholesaler/Company.
- _____ is the inventory held to avoid stock out.
- In _____ Analysis, the criteria employed is criticality of the item

Q.3 Expand the following (5 Marks)

- a)BOM b) MSME c) ROP d)TPS e) SMED

Q.4. Match the following (5 Marks)

Column A		Column B	
1	Quality At Source	A	TPM
2	Made to Stock	B	FIFO
3	Perishable Items	C	FMCG
4	Inventory Accuracy	D	JIT
5	Zero Break Down	E	RFID

PART B **[30 marks]**
(Attempt any 3. Each question carries 10 marks)

Q 5. a) How you will turn Inventory Management into a Profit Centre? **(5 Marks)**

b) Identify the organization which is managing inventory efficiently. **(5 marks)**

	Company A	Company B	Company C
Average Inventory Rs	62000	85000	90000
Cost of Goods Sold Rs	560700	860900	990700

Q. 6.a) How you will implement VMI in your organization? What are merits of VMI? **(5 marks)**

b) What is importance of safety stock? What are various costs associated with it? How you will decide Safety stock? **(5 marks)**

Q. 7. Apollo EV Motors has following demand data for their EVs for past 6 months **(10 Marks)**

Period	January	February	March	April	May	June
Forecast demand	1500	2000	2300	1700	1000	1200

Work out forecast for July by calculating through following methods

- Last Period Method.
- Simple Average Method
- Moving Average Method (consider sale for last 4 months)
- Weighted Average Moving Method. (The weight assigned is 3,2,1,2,4,3 from Jan to June)

Q.8. Explain Selective Inventory Control Techniques.(10 Marks)

Q.9 Write short notes on any two (2X5=10 marks)

- | | | |
|------------------------|--------------------|--------------------------------------|
| a) JIT | b) MRP, MRP II | c)Qualitative Forecasting Techniques |
| d) Inventory Category. | e) Stock Valuation | |

PART C **20 marks]**

Q. 10. Case study – Compulsory

Foxchem Ltd is engaged in manufacturing of specialty chemicals. On an average company carries inventory of 50 lacs. Places 2000 order annually. Company has provided following details:

1. Procurement Department Salary & Expenses	Rs 10 lacs
2. Cost of bill payment	Rs 0.35 lacs
3. Cost of Collection of materials	Rs 0.20 lacs
4. Warehouse Department Salary	Rs 1.0 lac
5. Cost of Receiving materials	Rs 0.17 lac
6. Cost of obsolescence, spoilage	Rs 0.30 lac
7. Expenses of stores activities	Rs 0.70 lac
8. Cost of inspection	Rs 0.25 lac
9. Cost of Material handling	Rs 0.75 lac
10. Cost of interest incurred on inventory	Rs 6.0 lacs
11. Insurance premium on stocks	Rs 1.0 lac

Questions:

- Calculate Cost of placing order(Ordering Cost).
- Calculate Inventory Carrying Cost (Holding Cost)
- Work out Economic Order Quantity
- Supplier offers 1% discount if order quantity is 1000 units per order :
Find out :
 - Saving on account of price discount
 - Saving in ordering cost
 - Loss due to carrying extra inventory.
 - Advise company whether discount should be accepted or not? Why?