INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management - 2 years
Post Graduate Diploma in Supply Chain Management & L.

March 2020

PAPER No. 14
INVENTORY MANAGEMENT

Date : 03.03.2020 **Max. Marks :100**
Time : 10.00a.m. to 1.00 p.m. **Duration : 3 Hrs.**

Instructions:

1. Part A is compulsory. Each question carries one mark. Total : 20 Marks
2. In Part B, answer 3 questions. Each question carries 20marks .Total : 60 Marks
3. Part C is a case study with sub questions and it is compulsory. Total 20 marks.
4. Use of calculator is allowed wherever necessary. Graph sheets can be used wherever necessary.

Part – A (compulsory) **(Total 20 marks)**

(Attempt all questions each question carries 1 mark)

Q.1. Fill in the blanks. (Do not reproduce the statement) [5 marks]

i) Inventory _________ is the loss in inventory physical value and the reported accounting stock value.
ii) The difference between the actual demand and the forecast demand is known as forecast ________.
iii) Minimum quantity of stock to avoid loss of sale due to non-availability is called _________stock.
iv) To bring more control over the pull system of production ________ is used.
v) Verification of stock carried out continuously throughout the year is called _________ verification.

Q. 2. State True or False (Do not reproduce the statement) [5 marks]

a) In vendor managed inventory the supplier of goods replenishes the inventory held by the buyer.

b) A smoothing constant determines the relevance of previous data to the forecast.

c) MPS stands for Master Planning System.

d) The forecasted probability of preventing a stock out is service level.

e) The actual price at which the transaction was performed is known as standard cost.

Q.3. Expand the following: **[5 marks]**

a) COGS b) GAAP c) DPMO d) LIFO e) MAD

Q. 4. Match the following : **[5 marks]**

Column A			Column B
Sl. No.	Description		Description
1.	Backordering	A	Inventory valuation
2.	FSN analysis	B	Use of panel of experts
3.	Delphi method	C	Purchases and ships once order is received
4.	Make to stock	D	Frequency of issue
5.	Specific cost method	E	Derived from sales forecast

PART - B

Write any three (3) of the following questions – 20 marks each (60 marks))

Q.5 a) What is inventory? What are the reasons for keeping it? **[10 marks]**
b)Explain ABC and VED inventory analysis methods. **[10 marks]**

Q.6 a) Describe quantitative methods of forecasting. **[10 marks]**
b) Explain in detail the process of MRP. **[10 marks]**

Q.7 a) Describe the seven major SPC tools **[10 marks]**
b) What are the measures for controlling finished goods inventories? **[10 marks]**

Q.8 a) What is retail shrinkage? What are its primary causes? **[10 marks]**
b) Differentiate between stock verification and stock evaluation. **[10 marks]**

Q. 9 Write short notes on any four:**[4 x 5 = 20 marks]**

a) WIP inventory
b) Quality at source
c) Methods of calculating forecast error
d) Vendor managed inventory
e) Advantages of ERP

PART – C (20 marks)

(Compulsory)

Q. 10 An item purchased from a vendor costs Rs 20/- each and the annual demand for the item is 1000 units. It costs Rs 5/- every time an order is placed and the carrying cost is 20% of the unit cost. Delivery lead-time is 5 days and average daily demand is 3 units.

Questions:

a) Derive the EOQ formula
b) Calculate EOQ
c) Calculate ordering cost
d) Calculate holding cost.
e) Calculate ROP

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