INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Materials Management

June 2014

Graduate Diploma in Materials Management

PAPER No. 10

INVENTORY MANAGEMENT

Date   : 19.06.2014   Max. Marks :100

Time   : 10.00a.m. to 1.00 p.m.   Duration   : 3 Hrs.

Instructions:

1. The question paper is in three parts A, B & C.
2. Part A is compulsory. Each question carries one mark. Total : 32 Marks
3. In Part B, answer 3 questions out of 5. Each question carries 16 marks.Total : 48 Marks
4. Part C is a case study with sub questions and it is compulsory. It carries 20 marks.
5. Use of calculator is allowed wherever necessary.
6. Graph sheets can be used wherever necessary.

<u>Part – A</u> (compulsory)   32 marks

(Attempt all questions each question carries 1 mark)

Q1. State TRUE or FALSE – 1 Mark each (8 Marks)

1. The objective of inventory management is to maximize availability at minimum cost.
2. Consumable items are directly used in production of finished goods.
3. Activity based costing allocates cost on products based on direct labour.
4. "Simple average method" is one of the methods of " Time series analysis"
5. HML classification of inventory is based on annual consumption of the items in stock.
6. EOQ often gives inconvenient numbers.
7. Periodic review system is also called Optional replenishment system.
8. Materials ready for dispatch to customers are called WIP inventory.

Q2. Fill in the Blanks – 1 Mark each (8 Marks)

1. Hazardous materials have handling instructions specified in _____
2. Materials paid for but not received in stores are called _____.
3. R.O.I is calculated as ratio of _____ and _____..
4. Safety stock in periodic review system is _____than in perpetual review system.
5. Demand forecasting techniques are classified into _____and _____techniques.
6. Identification of items in inventory management is done through allocating numbers called _____
7. Insurance spares have _____life compared to maintenance spares.

8. FIFO method of valuation of inventory is advantageous in market condition of _____-prices.

Q3. **A. Expand the following abbreviations (1 mark each) - 8 Marks**

1. HIFO   2. BOM   3. EOQ   4. VMI

5. VED(class)   6. SIT   7. EDI   8. JIS(standard)

Q4. Match the following in column A with those in column B - 1 Mark each (8 Marks)

A	B
1. Insurance spares.	A. Production Inventories.
2. Pallets	B. Demand forecasting.
3. Shelf life	C. PQR analysis
4. Variety reduction.	D. MRP
5. Master production schedule.	E. Materials handling.
6. Pareto Analysis.	F. ABC analysis.
7. Delphi method.	G. Inventory control
8. Bought out components.	H. Classification of spares.

PART - B

Write any three (3) of the following questions – 16 marks each (48 Marks)

Q5. Classify inventory in groups and explain briefly. How will you control RM inventory?

Q6. Why forecasting of demand is necessary? Explain 3 types of demands. Describe qualitative technique of demand fore casting.

Q7. What are different types of spares? Explain methods of inventory control of spares.

Q8. Write short notes on **any two.**   **(2 x8 = 16 marks)**

    a) Weighted average method of valuation of inventory.

    b) Material handling systems.

    c) Activity based costing.

    d) MRP

    e) Bin system of inventory control.

Q9. What is Economic order quantity? Calculate EOQ If

    a) ordering cost is Rs. 200/-   b) Inventory carrying cost is 30%,

    c) total demand of item is 100 nos and   d) cost of item is Rs. 3000/-

PART – C

Q. 10 compulsory   **(20 marks)**

You are appointed as inventory control manager in a fabrication unit making equipment like "Heat Exchangers, Pressure vessels etc". Steel tubes, steel plates, and welding materials are their main items of consumption. There are 10 varieties of tubes in terms of quality and size, about 20 varieties of plates, and welding electrodes of different types. Their annual consumption of material is worth Rs.25 crores and their annual turn over is Rs. 50 crores. At present they have a stock of all materials(mainly tubes, plates and welding electrodes) worth Rs. 20 crores.

1) How will you analyse inventory?
2) What is your recommendation of stocks based on their annual business?
3) How will you achieve inventory reduction to a stock of 3 months?

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