



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Materials Management

Graduate Diploma in Materials Management.

Dec 2015

PAPER No. 10 (New)

INVENTORY MANAGEMENT

Date : 17.12.2015

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.

Part – A (compulsory)

32 marks

(Attempt all questions each question carries 1 mark)

Q1. State TRUE or FALSE

– 1 Mark each (8 Marks)

1. Perishable products and seasonal products fall in single period inventory model.
2. XYZ analysis is based on annual consumption value.
3. Increase in material cost increases ROI.
4. Dependent demands are calculated from BOM.
5. Annual maintenance contract is extension of the concept of VMI.
6. Delphi method is a part of quantitative forecasting technique.
7. A good warehouse layout can reduce costs.
8. Rotable spares can be repaired and reused.

Q2. Fill in the Blanks

– 1 Mark each (8 Marks)

1. Safety stock arises due to _____ in lead time and consumption.
2. _____ spares have life equivalent to life of machine.
3. _____ file is also called product tree.
4. The importance of WIP inventory is a function of two factors, _____ and _____.
5. _____ analysis is based on shelf life of the items.
6. Brisch system of codification is _____ digit system.
7. Loss of kerosene due to evaporation is called _____ loss.
8. Raw materials converted into final product are called _____ inventory.

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

1. GIT 2. FIFO 3. BOM 4. ERP. 5. ROL 6. MRO 7. PPC(group). 8. JIT.

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

- | A | B |
|-----------------------------|--|
| 1. VED analysis. | A. Materials handling. |
| 2. MSDS | B. Stock valuation. |
| 3. Sub-assembly. | C. Master production schedule. |
| 4. MRP. | D. Work in process. |
| 5. Market Research. | E. Stock in trade. |
| 6. Weighted average method. | F. Spare parts inventory. |
| 7. Ready for sale. | G. Hazardous materials. |
| 8. Pallet truck. | H. Qualitative technique of forecasting. |

PART - B

Write any three (3) of the following questions

- 16 marks each (48 Marks)

- Q5.** What do you understand by ABC, XYZ, and VED analysis of inventory?, Which one will you use for effective inventory management and why?
- Q6.** What costs/expenses you will take into account to calculate ordering cost? Calculate EOQ if annual demand is 500nos, ordering cost is Rs.100/- , Inventory carrying cost is 30% and price is Rs.200 per unit.
- Q7.** Write short notes on any two.
- 1) Safety stock.
 - 2) MRO items
 - 3) Types of demands in MRP.
 - 4) Valuation of stocks.
- Q8.** Fix reorder level for item having consumption of 800 to 1000 nos per annum and lead time of 6 to 8 weeks. What method of replenishment will you use for this item?
- Q9.** What is importance of materials handling in a warehouse? Considering materials handling a non value adding activity, what steps you will take for efficient system of handling?

PART – C

Q. 10 compulsory

(20 marks)

A process industry has many pumps, compressors and related machinery. There are about 10000 items of spare parts with a value of Rs. 50 crores. The company appoints you as manager in charge of inventory control of spare parts.

- 1) What steps you will take to analyze stock of spare parts?
- 2) What will be your replenishment system to ensure right quantity procurement?
- 3) How will you deal with non-moving spares?
- 4) What will be your action plan to optimize inventory?.
