



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Graduate Diploma in Materials Management

June 2015

PAPER No. 10 (OLD)
INVENTORY MANAGEMENT

Date : 18.06.2015
Time : 10.00a.m. to 1.00 p.m.

Max. Marks :100
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.
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Part – A (compulsory)
(Attempt all questions each question carries 1 mark)

32 marks

Q.1 State whether the following statements are True or False.

- 1.1 ERP is extension of MRP
- 1.2 At EOQ Ordering Cost and Inventory Cost would be the lowest.
- 1.3 Machines do not die like human beings; they are condemned before they die.
- 1.4 Forecasting is more accurate for larger group.
- 1.5 EOQ can be applied to perishable items.
- 1.6 In Job Shop there relatively large work in process inventory.
- 1.7 ROL is insensitive to change in demand.
- 1.8 Stock in trade inventories is called Finished Goods

Q.2 Fill in the blanks:

- 2.1 PQR classification is based onof items.
- 2.2 Safety Stock is kept due to variation in And
- 2.3 Inspection cost is part ofCost
- 2.4 is the level at which stocks are just sufficient to meet demands during lead time.
- 2.5 Service Level is defined as
- 2.6Demand can be worked out precisely but notDemand. .
- 2.7 There is no WIP in Process.

2.8 In a JIT system material movement is controlled by

Q.3. Match A and B

Marks: 08

A	B
3A.1) Push System	3B.1) Not usable
3A.2) 'Q' System	3B.2) Over Stocking cost
3A.3) Obsolscnt spares	3B.3) JIT
3A.4) KU	3B.4) 'C' Class item
3A.5) Obsolete spares	3B.5) MRP
3A.6) 'P'System	3B.6) Under stocking cost
3A.7) KO	3B.7) 'A' Class item
3A.8) Pull System	3B.8) Going to be out of use

Q.4. Expand the following:

- | | | | |
|---------|------------|---------|-----------|
| 1. SKU, | 2. MRP II, | 3. EERP | 4. JIT II |
| 5. HIFO | 6. AGV | 7. JIS | 8. MPS |

Part – B

48 marks

Answer any three questions from the following, each question carries 16 marks

- Q.5** (A) Prepare ABC Analysis. Classify the items as A., B, and C.
 80% Value as 'A' category.
 15% Value as 'B' category
 5% Value as 'C' category

Item No	101	102	103	104	105	106	107	108	109	110	111	112
annual Consumption	360	300	1800	1800	480	2400	3600	180	500	300	1000	1000
Cost Rs /unit	100	1050	6	5	50	1	2	500	48	2	1	1

- (B) What are various variety reducing and quantity reducing techniques ?

- Q.6** (A) Why are Safety Stocks required?
 (B) How do you decide how much safety stock you must hold for each item?

- Q.7** (A) The annual demand of X is 10,000 nos, Ordering Cost is Rs 200, Inventory Carrying Cost is 20%, Price is Rs 60/- per unit. Party offers 1% discount Order if placed for 2000 nos and above. Find out i) EOQ
 ii) Total Saving iii) Advise whether 1% discount should be accepted.
 Show working.
 (B) Discuss stocking policy for for various types of spares.

Q.8 What will be your stocking policy for following items:

	Fast moving	Slow Moving	Non Moving
<i>A Items</i>			
<i>B Items</i>			
<i>C Items</i>			

	Vital	Essential	Desirable
<i>A Items</i>			
<i>B Items</i>			
<i>C Items</i>			

Q.9 Answer any four of the following:

Write Short Notes on:

- (A) Making profit from scrap
- (B) Reasons for normal losses in storage
- (C) Various reports from MRP System
- (D) VMI
- (E) Two Bin/ Three Bin System

Part – C

20 marks

Case Study (Compulsory) (Answer all questions)

Q 10. Make a careful study of the case presented and answer all the questions asked.

Sonata Electronics is a medium scale unit engaged in manufacturing of electronics systems which are used in automobiles industry. Mahindra & Mahindra is their major client. Due to increase in the raw material prices and slow down in the automobile industry both the organizations are under pressure. M & M put pressure on the Sonata Electronics for cost reduction and reduced inventory their end and ask for short notice supplies. Mr Devendrakumar CEO of Sonata Electronics is in dilemma. He has received a suggestion from Ms Akshata, Purchase Manager of Sonata to implement ERP System and restructure Materials Department. She has expressed confidence to save substantially if materials department is run and organized professionally.

1. Why ERP should be implemented ?
2. What Types of data/information will you collect to reduce inventory?
3. What steps you will take to reduce inventory costs and cost of material?
4. Prepare strategy for long term supply of items required by Mahindra & Mahindra.
