



PQ3AAX

SVBMS  
Prod & Quality mgt  
15/3/12.  
Marks : 75

Time : 2 Hrs 30 min

- Instructions :**
1. Answer any two sub-questions from each question. Q.5 is compulsory.
  2. Each question carries 15 marks. Figures to the right indicate marks.
  3. Only use of basic calculator is allowed.

- Q1.
- A) What is mean by production management? Explain its objectives
  - B) Explain Mass type of manufacturing system with advantages & disadvantages.
  - C) Discuss different purchasing methods.
- Q.2
- A) What is mean by ABC classification? Classify following items in A, B and C categories.

Item	Annual usage	Price/unit (in Rs.)
1	700	5.00
2	2,400	3.00
3	150	10.00
4	60	22.00
5	3,800	1.50
6	4,000	0.50
7	6,000	0.20
8	300	3.50
9	30	8.00
10	2,900	0.40
11	1,150	7.10
12	410	6.20

- B) What is mean by materials management? Explain its objectives.
- C) The ABC company uses 20000 units per year. The price is Rs. 2 per unit. The cost of carrying inventory is 20% of average inventory investment on annual basis. The cost to place an order is Rs. 160 per order. Lead time is 10 working days. Total working days are 250 days per annum. Safety stock is 700 units. Determine EOQ, Reorder point & Annual total cost.

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- Q.3 A) What is mean by COPQ? What are different costs considered while calculating COPQ.  
B) Discuss any eight points from Deming's fourteen points of TQM.  
C) Explain the term 'Quality Circle'. What are its principles?
- Q.4 A) What is mean by Lean thinking? Explain seven Muda's of manufacturing.  
B) Why ISO 9000 is required? What are its benefits?  
C) Explain Malcom Baldrige National Quality Award in detail.
- Q5 Read the case study & answer the following questions

### **Tata Engineering**

Tata Engineering is located in Jamshedpur, Bihar in India. The major product of the company is front axle & back axle, used in commercial vehicles as well as army vehicles. The company mainly focuses on manufacturing as per customer requirements.

The company faces a problem of less production. The production manager found that this is due to lack of multi-skilled development, lack of training to operators, no proper utilization of resources & non-involvement of staff in Kaizen program. Company's main motto is to achieve target production.

#### **Questions:**

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| 1) What are the problems in above case?                                | 3M |
| 2) What is mean by Kaizen? How it can be applied?                      | 7M |
| 3) How the technique 'Kaizen Gemba' will solve problems in above case? | 5M |