

**B.Tech. MECHANICAL ENGINEERING  
COMPUTER INTEGRATED MANUFACTURING**

**Term-End Examination, 2019**

**BME-013 : PRODUCTION MANAGEMENT**

**Time : 3 Hours**

**Maximum Marks : 70**

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**Note : Attempt any five questions. Use of scientific calculator is allowed.**

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1. (a) Discuss the factors affecting the location choice of a facility. [7]
- (b) List the different types of facility layout. What are the advantages and disadvantages of product layout ? [7]
2. (a) Explain the procedure of performing break-even analysis. [7]



- (b) What do you understand by project scheduling ? Explain the trade-off in network crashing. [7]
3. (a) A firm believes that its annual profit depends on its expenditures for research. The information for the preceding six years is given below. Estimate the profit when the expenditure is 6 units. [7]

Year	Expenditure for Research (X)	Annual Profit (Y)
1	2	20
2	3	25
3	5	34
4	4	30
5	11	40
6	5	31
7	6	?

- (b) Explain the different production planning strategies. [7]
4. (a) What are the input and output of MRP ? How an MRP can reduce the inventory investment ? [7]

- (b) What do you understand by ERP systems ?  
What are the difficulties that may be encountered  
in implementing ERP ? [7]
5. (a) Explain different capacity strategies that are  
followed by the managers in industries. [7]
- (b) Discuss the importance of inbound and outbound  
logistics in a supply chain with the help of suitable  
example. [7]
6. (a) What is method study ? Explain the different  
steps involved in method study. [7]
- (b) What are the different causes of bullwhip  
effect ? Explain the performance attributes of a  
supply chain. [7]
7. (a) Alpha industry estimates that it will sell 12,000  
units of its product for the forthcoming year. The  
ordering cost is ₹ 100 per order and the carrying  
cost per unit per year is 20% of the purchase  
price per unit. The purchase price per unit is  
₹ . 50 [7]

Find :

- (i) Economic order quantity (EOQ)
  - (ii) Time between successive orders
- (b) (i) List the important steps for implementing JIT. [7]
- (ii) Describe the advantages of JIT system.

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