8E4050

B. Tech. VIII Semester (Main/Back) Examination-2014
MECHANICAL ENGINEERING # ⑧ME②
OPERATIONS MANAGEMENT

Time : 3 Hours   Min. Passing Marks : 24   Total Marks : 80

Instruction to Candidates :
Attempt any **five** questions, selecting **one** question from **each** unit. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

Unit-'I'

1. What is the importance of production function. Distinguish production management and operations management. [16]

OR

1. (a) How is operations strategy related to business strategy? How does operations strategy impact business strategy? [8]

(b) Explain the concept of productivity. What are the factor affecting the productivity? [8]

Unit-'II'

2. (a) What is continuous and batch production? What are its characteristics, advantages and limitations? [8]

(b) Explain the factors affecting process planning. [8]

OR

2. (a) Define the term process planning. [4]

(b) Explain the various steps involved in process planning. [12]

Unit-'III'

3. (a) What is MRP II? How does it differ from MRP? Explain. [8]

(b) What is master production? Explain the functions of master production schedule. [8]

OR

3. Describe the various steps involved to MRP system. State the benefits and limitations of MRP. [16]

Unit-'IV'

4. Explain following

(a) Routing

(b) Scheduling [16]

OR

4. (a) What do you understand by planning and control? Give its objectives. [8]

(b) Explain the follow up of PPC. [8]

Unit-'V'

5. (a) Explain what do you mean by a material with independent demand. Give an example and explain why its demand is independent? [8]

(b) A firm uses every year 16000 units of a raw material costing Rs. 1.5 per unit Ordering cost is Rs. 12 per order and holding cost is 5% per year of average inventory.

(i) Find EOQ

(ii) The firm follows EOQ purchasing policy. It operates for 300 days per year. Procurement time is 14 days and safety stock is 400 units. Find the reorder point, the maximum inventory and average inventory. [8]

OR

5. What are objectives and functions of material management? Derive EOQ. [16]