013608

August/September 2022
B.Tech. (ME) VI SEMESTER
Industrial Engineering (PEC-ME-302)

Time : 3 Hours]   [Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*

2. *Answer any four questions from Part-B in detail.*

3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART-A

1. (a) What is the difference between production and productivity?   (1.5)

     (b) Discuss how job costing is done.   (1.5)

     (c) Discuss standard costing.   (1.5)

     (d) What is the importance of 'standardization' and 'simplification'?   (1.5)

     (e) Define scheduling.   (1.5)

     (f) What is SCM? Discuss.   (1.5)

(g) Discuss forecast error. (1.5)

(h) Discuss Johnsons algorithms for n jobs-2 machines. (1.5)

(i) Discuss Safety stock level. (1.5)

(j) Describe the importance of material management. (1.5)

PART-B

2. (a) What are the major objectives of Production planning and control? How PPC help an industry to enhance its performance? (10)

(b) What is Therblig? List the table with details. (5)

3. (a) Describe direct and indirect cost associated with accidents. (5)

(b) Discuss the different steps in method study and also explain its procedure? Explain partial productivity, total factor productivity and explain the factors that affect the productivity? (10)

4. Describe Inventory control. What are the objectives of inventory control? (15)

5. (a) Differentiate between 100% inspection and sampling with suitable examples. (5)

(b) Discuss ABC analysis in details with example. (10)

6. A company requires 16000 units of raw material costing Rs. 2 per unit. The cost of placing an order is Rs. 45 and the carrying costs are 10% per year per unit of the average inventory. Determine: (i) the EOQ (ii) Cycle Time and (iii) Total variable cost of managing the inventory. (15)

7. What is forecasting? Discuss the different types of forecasting methods. (15)

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