B. Tech.

(SEM. VI) EXAMINATION, 2006-07

PRODUCTION PLANNING CONTROL

Time : 3 Hours] [Total Marks : 100

Note : Answer all questions. Marks are shown against each question.

1 Attempt any four parts : 5x4=20
   a. Distinguish between product, service and project.
   b. State objectives of production, planning and control (PPC) department.
   c. Distinguish between jobshop, batch and mass production system.
   d. What are major objectives of plant layout.
   e. Enlist various methods of demand forecasting and explain any two of them in detail.
   f. Enlist various factors which are to be considered for replacement of an equipment.

2 Attempt any two parts : 5x4=20
   a. What is routing? What are major factors to be considered for routing process?
   b. What is meant by scheduling? What are limiting factors in production scheduling ?
   c. What are functions performed by the dispatching sections in a production control department? What is meant by followup ?

V-4103] 1 [Contd...
3 Attempt any two parts: 10×2=20
   a. Explain ABC analysis and FMS analysis as used in inventory control.
   b. What is economic order quantity? A company uses annually 12000 units of a particular type of component costing Rs.1.25 per unit. Placing each order costing Rs.15 and carrying costs are 16% per year per unit of average quantity. Find economic order quantity.
   c. State duties and functions of purchasing department? Compare between centralized purchasing and decentralized purchasing system.

4 Attempt any two parts: 10×2=20
   a. Differentiate between simplification and standardization, giving suitable examples.
   b. Explain various steps in value engineering job plan.
   c. What is FAST? Explain procedure for drawing FAST diagram with the help of suitable example.

5 Attempt any two parts: 10×2=20
   a. A small project has 7 activities and the time in days for each activity is given below:-

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration (Days)</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
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<tr>
<td>C</td>
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<td>E</td>
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<tr>
<td>F</td>
<td>10</td>
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<tr>
<td>G</td>
<td>3</td>
</tr>
</tbody>
</table>

V-4103] 2 [Contd..
Further it is given that A and B can start at the beginning of the project. Where 'A' is completed 'C' and 'D' can start. 'E' can start only when 'B' and 'D' are finished it. Activity 'F' can start when 'B' 'C' & 'D' are completed. 'G' can start when 'E' is finished. 'F' and 'G' are final activities.

Draw network diagram and find project completion time.

b) Describe various steps involved in material requirement planning (MRP)

c) Write short note on Enterprise Resource Planning (ERP)