MA-171

Third Year B. B. A. Examination
March / April – 2003
Manufacturing & Materials Management

Time : 3 Hours] [Total Marks : 70

Instruction : All questions are compulsory and carry equal marks.

1 (a) Define production management and explain its main functions. 7
(b) State different production systems/methods and explain the characteristics of mass production method. 7

OR

1 (a) Carry out the comparative study of rural site and urban site in detail relating to plant location. 7
(b) Highlight the main principles of material handling. 7

2 (a) Define work study and explain the objectives of it in detail. 7
(b) Short notes on the following:
   (i) Flow process chart 7
   (ii) Flow diagram.

OR

2 (a) Define the following:
   (i) Productivity 7
   (ii) Occasional elements
   (iii) Allowances
(b) Discuss the steps involved in time study. 7

3 (a) Highlight the main objectives of production planning and control in detail. 7
(b) With the help of the following table find the following:
   (i) CPM network diagram
   (ii) EST, EFT, LST and LFT

MA-171] 1

[Contd...]
(iii) Critical activities and critical path
(iv) Critical path duration
(v) Slack/float for each activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Predecessor</th>
<th>Time in days</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>B</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>-</td>
<td>16</td>
</tr>
<tr>
<td>D</td>
<td>C</td>
<td>8</td>
</tr>
<tr>
<td>E</td>
<td>A, B</td>
<td>16</td>
</tr>
<tr>
<td>F</td>
<td>E, D</td>
<td>8</td>
</tr>
<tr>
<td>G</td>
<td>D</td>
<td>6</td>
</tr>
<tr>
<td>H</td>
<td>F, G</td>
<td>6</td>
</tr>
</tbody>
</table>

3 (a) Short notes on the following:
   (i) Gantt Chart
   (ii) Operation and Route sheet.

(b) What are the different times to be considered in PERT? – Explain.

4 (a) Define Materials Management and explain main functions of it in brief.

(b) Define industrial purchasing and explain the steps involved in purchasing in brief.

OR

4 (a) What do you understand by centralised and decentralised purchasing? Explain their merits and demerits.

(b) Short notes on the following:
   (i) Vendor selection
   (ii) Purchasing through DGS&D.

5 (a) Short notes on the following:
   (i) Stores layout
   (ii) Accounting of stores.

(b) A small scale industry purchases an item at the rate of Rs. 75/- per piece. The monthly consumption is 2000
units. If the ordering cost is Rs. 400/- per order and
carrying cost is 35% per annum of average inventory.
Find out:
(i) EOQ
(ii) Number of orders / year
(iii) Order interval
(iv) Optimum cost / year

OR

5 (a) Define inventory and explain classification of inventory 7
in an industry.
(b) What do you about inventory control? Discuss its 7
any two techniques in detail.