PART A
(Compulsory- each sub-question carries one mark)

Q. 1. Fill in the blanks. (Do not reproduce the statement) [5 marks]

i) ________ is the stage in a team development when the team begins to work together.

ii) ________ is an entity that contributes towards the achievement of project activities.

iii) Least square method is also known as ________ projection.

iv) The costs incurred in a project that do not contribute to project objectives are ________ costs.

v) Project ________ is an uncertain event or occurrence that can have a positive or negative impact on a project.

Q. 2. State True or False. (Do not reproduce the statement). [5 marks]

i) The set of boundaries that define the range of a project is project specification.

ii) All types of projects are susceptible to risks.

iii) Crashing is the reduction of project duration by deploying extra resources.

iv) Net Present Value is the value at which cash inflow and cash outflow even each other out.

v) Learning curve is mostly used for project resource allocation.

Q. 3. Expand the following [5 marks]

i) PMBOK  ii) WBS  iii) CPIF  iv) EVM  v) WACC

Q. 4. Match A and B [5 marks]

<table>
<thead>
<tr>
<th>No.</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Resource loading</td>
<td>A  Process of assessing available resources for different activities</td>
</tr>
<tr>
<td>2.</td>
<td>Resource scheduling</td>
<td>B  The process of ensuring a constant requirement of resources</td>
</tr>
<tr>
<td>3.</td>
<td>Resource leveling</td>
<td>C  Processing and allocating organization resources to various project activities</td>
</tr>
<tr>
<td>4.</td>
<td>Resource allocation</td>
<td>D  Process of identifying quantifying and aggregating the amount of resources required</td>
</tr>
<tr>
<td>5.</td>
<td>Resource Management</td>
<td>E  Process of identifying quantifying and allocating resources in activities to optimize cost &amp; duration</td>
</tr>
</tbody>
</table>
PART B

[Total 80 marks]

Answer any four out of the following six questions: (20 Marks each)

Q.5. a) Explain project planning process. [10 marks]
   b) What are the factors involved in the market analysis? [10 marks]

Q.6. a) What is project budget? Explain. [10 marks]
   b) Explain project risk management. [10 marks]

Q.7. a) Explain the tools used for project control. [10 marks]
   b) Briefly explain the methods of project termination. [10 marks]

Q.8. Differentiate between [any two] [2 x 10 = 20 marks]
   a) Direct cost and indirect cost
   b) Fixed contract and Cost reimbursable contract
   c) Feed forward control and feedback control
   d) Financial control and budgetary control

Q.9. Write short notes on any four [4 x 5 = 20 marks]
   a) Project Management Information System
   b) Project audit
   c) Skills of a project manager
   d) Matrix organization
   e) Learning curve

Q.10. A company is about to begin a project to design a production process for producing a new product.
      The activities, their precedence relationships, and their durations as estimated are tabulated below.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity description</th>
<th>Activity duration</th>
<th>Immediate predecessor</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Initial study of the product design</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td>b</td>
<td>Primary process technology study</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>c</td>
<td>Vendor capability survey</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>d</td>
<td>Modification of facility for product design</td>
<td>14</td>
<td>b</td>
</tr>
<tr>
<td>e</td>
<td>Intermediate facility design</td>
<td>6</td>
<td>c</td>
</tr>
<tr>
<td>f</td>
<td>Intermediate product design</td>
<td>18</td>
<td>b, a</td>
</tr>
<tr>
<td>g</td>
<td>Specific process machinery design</td>
<td>11</td>
<td>d, e</td>
</tr>
<tr>
<td>h</td>
<td>Vendor involvement and integration</td>
<td>21</td>
<td>c</td>
</tr>
<tr>
<td>i</td>
<td>Final facility, product, process design</td>
<td>7</td>
<td>f, g</td>
</tr>
</tbody>
</table>

Questions:
   a) Construct the network diagram [5 marks]
   b) What is the critical path and estimated project duration? [8 marks]
   c) Compute early start, early finish, late start, late finish and float for each activities and present in a table. [7 marks]