Q.1. Fill in the blanks. (Do not reproduce the sentence)

a) The _______ organization represents the structure in direct vertical relationships through which authority flows.

b) The _____ approach examines inter-relationships and interdependency of organizational parts.

c) ________ is defined as uncertainty surrounding an event.

d) Matrix organization achieves efficiency, economy, and _______.

e) Constraints that are due to physical limitations are ________.

f) The check points in projects are called ____________.

g) __________ is a graphical depiction of project path.

h) Insurance is an example of risk ____________.

Q.2. State True or False

a. Project objectives are always economical in nature.

b. Line of balance is a management technique to determine the value of completed tasks in a project.

c. CPM stands for crucial performance measures.

d. Maturity is a phase in project life cycle.

e. A committed project team is the first and foremost requirement for the success of a project.

f. Independent float is that part of total float that does not affect subsequent activities.

g. PERT is activity oriented network analysis.

h. Hurwicz approach to decision making is based on the criterion of realism.
Q. 3. Expand the following
   a) EIA
   b) GERT
   c) TEFR
   d) PDM
   e) ICB
   f) IAA
   g) LRM
   h) PIR

Q. 4. Match the following

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Gantt chart</td>
<td>a) Contract type</td>
</tr>
<tr>
<td>2) WBS</td>
<td>b) Crashing</td>
</tr>
<tr>
<td>3) Event</td>
<td>c) Network</td>
</tr>
<tr>
<td>4) IRR</td>
<td>d) Planning tool</td>
</tr>
<tr>
<td>5) Resource leveling</td>
<td>e) Node</td>
</tr>
<tr>
<td>6) Earned value</td>
<td>f) Project appraisal</td>
</tr>
<tr>
<td>7) Cost plus</td>
<td>g) Activities</td>
</tr>
<tr>
<td>8) Fulkerson rule</td>
<td>h) Work accomplished</td>
</tr>
</tbody>
</table>

PART B 48 marks

(Answer any three. Each question carries 16 marks)

Q.5. a) Project is a conversion model. Substantiate the statement. (8 marks)
     b) Explain project within project with suitable examples? (8 marks)

Q.6. a) What are the requirements of a successful project manager? (8 marks)
     b) What is project risk? What are the steps involved in managing risk? (8 marks)

Q.7. a) Explain concept and methods of project crashing. (8 marks)
     b) What is project closure? Discuss the steps involved. (8 marks)

Q.8. Distinguish between
     a) Precedence Diagram and Network diagram
     b) Functional organization and divisional organization
     c) Project and production
     d) Risk reduction and risk acceptance (4x4 = 16 marks)
Q.9. Write short notes on any four

a) Matrix organization
b) Resource leveling
c) Project Budget
d) S curves
e) Project management software

Q.8. A project consists of 9 activities. The three time estimates of each of the activities along with the precedence relationships are given below.

<table>
<thead>
<tr>
<th>Job</th>
<th>Predecessor</th>
<th>Time (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>to</td>
</tr>
<tr>
<td>A</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>C</td>
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<td>D</td>
<td>B</td>
<td>11</td>
</tr>
<tr>
<td>E</td>
<td>C</td>
<td>5</td>
</tr>
<tr>
<td>F</td>
<td>A,B</td>
<td>14</td>
</tr>
<tr>
<td>G</td>
<td>D,E</td>
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<tr>
<td>H</td>
<td>C</td>
<td>18</td>
</tr>
<tr>
<td>I</td>
<td>F,G</td>
<td>5</td>
</tr>
</tbody>
</table>

Questions:

a) Calculate the expected time and the variance for each activity. (5 marks)
b) Draw the critical path diagram & indicate the critical path (6 marks)
c) Calculate the expected completion time of the project (2 marks)
d) Calculate floats for each of the activities (5 marks)
e) What is the standard deviation of the project (2 marks)