INSTRUCTIONS:
1. From Part ‘A’, answer four questions (Compulsory). Each sub-question carries 01 mark. Total: 32 Marks
2. From ‘B’, answer any 3 out of 5 questions. Each question carries 16 marks. Total Marks: 48
3. Part ‘C’, is a case study with sub questions (Compulsory) Total Marks: 20
4. Use of calculator and/or mathematical table is permitted. Graph sheet can be used wherever necessary.
5. Please read the instruction on the answer sheet.

PART A - Compulsory (1 marks each Total = 32 marks)
Q.1. Fill in the blanks. (Do not reproduce the statement)
   a) _______ ___ _____________ technique is used to determine the progress of various phases of a
      project.
   b) Project involving more than Rs 1000 crores investment is called ______ project.
   c) A project is handed over to the customer at the ___________ phase.
   d) Dummy activity takes ___ time duration to complete.
   e) Numbering of events is done as per ______ rule.
   f) Continuous improvement is an inherent part of ______ process.
   g) Squared network is a technique used for project ________
   h) A combination of line and functional organization is ____ organization.

Q.2. State True or False
   a. Line of balance technique is derived from scalar process.
   b. PACE method is used to monitor the performance of a group of people.
   c. Work breakdown structure indicates the failure in the project progress
   d. Flow chart and Gantt chart are used for the same purpose
   e. Dummy activities are not used in AON networks.
   f. All critical path activities have maximum float.
   g. Free float is part of the total float that does not affect subsequent activities.
   h. Conflict is the result of disagreement between two individuals.
Q.3. Match the following

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event</td>
<td>a) Degree of commonality</td>
</tr>
<tr>
<td>Float</td>
<td>b) Probabilistic</td>
</tr>
<tr>
<td>PERT</td>
<td>c) Project evaluation</td>
</tr>
<tr>
<td>Team</td>
<td>d) Node</td>
</tr>
<tr>
<td>Payback period</td>
<td>e) Decision making</td>
</tr>
<tr>
<td>ICB</td>
<td>f) Activity</td>
</tr>
<tr>
<td>Laplace criterion</td>
<td>g) Benchmark</td>
</tr>
<tr>
<td>World class</td>
<td>h) Method of tendering</td>
</tr>
</tbody>
</table>

Q.4. Expand the following

a) PDM
b) DPR
c) IRR
d) CAPM
e) ICB
f) EIA
g) EMAS
h) BCWS

PART B (16 marks each Total = 48 marks)

(Answer any three)

Q.5.

a) Explain the concept of project within project using suitable example.
   b) What are the requirements of a successful manager?

Q.6.

a) What are the rules for change control in a project?
   b) Why environmental analysis must be included as part of project appraisal?

Q.7.

a) What are various techniques of handling uncertainty in project management?
   b) What are the formalities to be completed before handing over a project?

Q.8.

Distinguish between

a) Gantt chart and Network diagram
b) Activity on Node and Activity on Arrow
c) Resource leveling and Resource allocation
d) ISO 9001 and ISO 14001
Q.9. Write short notes on any four
   a) Matrix organization
   b) Resource allocation
   c) Project crashing
   d) Benchmarking
   e) Project audit

   **PART C**

   **20 marks**

   Que 10. compulsory

   Q.8. A project consists of 11 activities. The three time estimates of each of the activities 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>
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<td>I</td>
<td>H</td>
<td>2</td>
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<tr>
<td>J</td>
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<td>3</td>
</tr>
<tr>
<td>K</td>
<td>I,J</td>
<td>6</td>
</tr>
</tbody>
</table>

   Questions:
   a) Draw the network diagram
   b) Indicate the critical path
   c) Calculate the expected completion time of the project
   d) Calculate floats for each of the activities
   e) Calculate the variance for each activity
   f) What is the standard deviation of the project.