B.Sc in Information Technology
YEAR 2

SUPPLEMENTAL EXAMINATIONS 2002

I.S. PROJECT MANAGEMENT

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Answer question Q.1. AND any THREE other questions.

Each question carries a total of 25 marks.
Q.1. The work breakdown structure for a Systems Training programme is illustrated in Table 1.

Table 1.

<table>
<thead>
<tr>
<th>Activity No</th>
<th>Activity Description</th>
<th>Duration (days)</th>
<th>Dependency Activity Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Define training requirements</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Approve training programme</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Prepare training manuals</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Install training hardware</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Install training software</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Appoint trainers</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Conduct training</td>
<td>5</td>
<td>3,5,6</td>
</tr>
<tr>
<td>8</td>
<td>Prepare graduate certificates</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Graduation</td>
<td>1</td>
<td>7,8</td>
</tr>
<tr>
<td>10</td>
<td>Conduct training review</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

(a) Prepare a PERT network diagram for this project. You may use Activity-on-Node or Activity-on-Arrow format, either is acceptable. (20 marks)

(b) Using the critical path method, calculate the time required to complete the project. Illustrate the critical path on your network diagram. (5 marks)

Q.2. (a) Explain in detail the process of project control. (15 marks)

(b) Discuss recovery options that are available to a Project Manager of a project that is running late and over budget. (10 marks)

Q.3. (a) CoCoMo and Function Point Analysis are two methods of software estimation. Give a detailed account of each method. (25 marks)
Q.4.  (a) Explain alternative options that can be used for recruiting Information Systems staff.  
(b) Discuss the skills and personal characteristics of a successful Information Systems Project Manager.  
(c) Explain in detail the main clauses you would include in an Information Systems Project Manager’s Employment Contract.

Q.5.  (a) Distinguish between systems development risks and systems operations risk  
(b) Discuss the issues that you would include in a Disaster Recovery strategy.  
(c) In an Information Systems context, discuss how the events of September 11, 2001 have influenced the thinking of risk managers.

Q.6.  Write short notes on any FIVE of the following:
   i. Project Management CASE tools  
   ii. The Project Manager’s perspective of software quality  
   iii. The Gantt chart  
   iv. Dummy activities  
   v. Information Systems manpower planning  
   vi. Software configuration management