B.Sc in Information Technology

YEAR 2

SUMMER EXAMINATIONS 2004

I.S. PROJECT MANAGEMENT

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Monday 10th May, 2:30pm – 5:30pm

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

Each question carries a total of 25 marks.
Q.1. An agreed work breakdown structure for a staff 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>Recruit staff to be trained</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Establish staff training needs</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Prepare training programmes</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Prepare training materials</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Prepare training centre</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Set examination</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Interview potential trainers</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Appoint trainers</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>Conduct training</td>
<td>15</td>
<td>4,5,8</td>
</tr>
<tr>
<td>10</td>
<td>Hold examinations</td>
<td>5</td>
<td>6,9</td>
</tr>
<tr>
<td>11</td>
<td>Publish results</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

(a) Prepare a PERT network diagram using activity-on-arrow or activity-on-node notation (either is acceptable). (15 marks)

(b) Calculate the float for all non-critical activities. (7 marks)

(c) State the critical activities, calculate the project duration and illustrate the critical path on your network diagram. (3 marks)

Q.2. (a) Discuss the topics that should be included in a Request for Proposal for a new information system. (10 marks)

(b) Fully explain FIVE clauses that should be included in the quotation which is sent in reply to the Request for Proposal. (15 marks)

Q.3. Explain in detail the product development roles of the quality assurance manager and the systems configuration manager. Indicate in your answer how these individuals would interact on a day-to-day basis with the project manager. (25 marks)

[Turn over]
Q.4.  (a) For a CASE tool of your choice, fully explain how it is used during the project life cycle for *project control* and *project reporting*. 
(b) Discuss the options that are available for recovering a project that is out of control.

Q.5.  (a) Explain TWO measurement techniques that can be use to estimate effort and duration of a systems project.
(b) Explain the different perspective of software measurement that impacts the project manager in the later phases of a project.
(c) Describe TWO measurement CASE tools that are available to the systems project manager.

Q.6. Write short notes on any FIVE of the following:

   i. Systems risk management;
   ii. Information Systems recruitment;
   iii. Dummy activities;
   iv. The advantages of acquiring commercial off-the-shelf (COTS) software;
   v. Managing quality during the project life cycle;
   vi. Software life cycle processes.