B.Sc in Information Technology

YEAR 2

SUMMER EXAMINATIONS 2005

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. A work breakdown structure for selecting and acquiring a new ‘off-the-shelf’ Information System 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 terms of reference</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Gather functional requirements</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Gather quality requirements</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Define selection criteria</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Decide evaluation methods</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Identify packages/vendors</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Shortlist suitable packages</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Evaluate packages</td>
<td>15</td>
<td>4,5</td>
</tr>
<tr>
<td>9</td>
<td>Evaluate vendors</td>
<td>3</td>
<td>5,7</td>
</tr>
<tr>
<td>10</td>
<td>Choose most suitable solution</td>
<td>5</td>
<td>6,8,9</td>
</tr>
<tr>
<td>11</td>
<td>Finalise contract</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Place order</td>
<td>3</td>
<td>11</td>
</tr>
</tbody>
</table>

Use an appropriate project planning technique to calculate:

i. the float for all non-critical activities;
ii. the shortest time to complete the project. (25 marks)

Q.2. (a) Compare and contrast:

i. The weekly reporting requirements of a team of programmers to their team leader.
ii. The monthly reporting requirements of the project manager to the professional project team. (9 marks)

(b) Explain how information for the reports in part (a) would be gathered. (4 marks)

(c) A recent report has confirmed that a significant systems project will not meet its original completion date. Because a window of opportunity will be missed the client is seriously considering terminating the project. What action would you recommend that would convince the client that you could retrieve the situation? (12 marks)
Q.3. (a) Explain in detail the role of the quality assurance manager in a systems project. (15 marks)

(b) Discuss quality assurance CASE tools that are available for systems projects. (5 marks)

(c) Following a selection and interview process for a quality assurance specialist to join the QA team you have narrowed the choice to three candidates. What criteria would you now apply in order to choose the best candidate to suit the team? (5 marks)

Q.4. (a) Media reports continue to contain accounts of IS project failure.

In the context that there are already in place methodologies, models, frameworks, standards and good practice guidelines, discuss why project still continue to fail. (20 marks)

(b) Explain how the events of September 11, 2001 and the Asian tsunami of December 26, 2004, might influence the thinking of Information Systems project managers. (5 marks)

Q.5. (a) Explain why historical records and delphi estimation are important in the domain of project management. (6 marks)

(b) In a project estimating context, explain what you understand by the term resource loading. (7 marks)

(c) Describe in details how Function Point Analysis is used for project estimation purposes. (12 marks)

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

i. Quality in the user interface;
ii. The role of the configuration manager;
iii. Calculating a consultant’s daily chargeout rate;
iv. Project control structures;
v. Capability maturity in a systems organisation;
vi. Outsourcing to contract developers. (5 x 5 marks)