B.Sc in Information Technology

YEAR 2

SUMMER EXAMINATIONS 2002

I.S. PROJECT MANAGEMENT

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Friday 17th May, 10am - 1pm

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

Each question carries a total of 25 marks.
Q.1. As part of a major systems project a new e-commerce LAN is to be designed and installed and the work breakdown structure as illustrated in Table 1 has been agreed.

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>Prepare Requirements Specification</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Design LAN</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Purchase and await delivery</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Prepare test plan</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Prepare training plan</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Install communications</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Install hardware</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Install software</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>Conduct testing</td>
<td>5</td>
<td>4,6,8</td>
</tr>
<tr>
<td>10</td>
<td>Conduct training</td>
<td>14</td>
<td>5,8</td>
</tr>
<tr>
<td>11</td>
<td>Handover</td>
<td>1</td>
<td>9,10</td>
</tr>
</tbody>
</table>

(a) Prepare an activity-on-node network diagram for this project. (20 marks)

(b) State the activities which constitute the critical path and calculate the minimum duration required to complete this project. (5 marks)

Q.2. In the absence of historical data, give a full explanation, with examples where appropriate, of methods that can be used by project managers for software project estimation. Your answer should address issues like project size, duration and human resource requirements. (25 marks)

Q.3. (a) Explain the aim of Information Systems risk management. (4 marks)

(b) Compare and contrast risks addressed by a systems Project Manager and those risks addressed by a systems Operations Manager. (14 marks)

(c) Discuss the issues that a good disaster recovery strategy should address. (7 marks)

[Turn over]
Q.4.  
(a) Explain in detail the role of the Quality Assurance manager in a typical IS development project.  
(16 marks)

(b) As Quality Assurance Manager, you have been assigned the responsibility of securing ISO 9000 certification of your Quality System. Outline the process involved.  
(9 marks)

Q.5.  
You are an IT Director of a multinational organization and you are about to advertise to fill a vacant position of Project Manager for an MIS globalisation project.  

(a) Write a brief for the recruitment consultant detailing the content of the advertisement you would like to have prepared.  
(12 marks)

(b) Explain the principal clauses, which you would include in this Project Manager’s contract of employment.  
(13 marks)

Q.6.  
(a) Explain the terms project control and project reporting.  
(3 marks)

(b) Discuss in detail the control structures you would implement for the successful completion of an MIS development project.  
(15 marks)

(c) Explain how CASE tools are used throughout the entire life cycle of an IS development project.  
(7 marks)