B.Sc in Information Systems and Information Technology

STAGE 2

SEMESTER 2 SUMMER EXAMINATION 2009/2010

INFORMATION SYSTEMS PROJECT MANAGEMENT

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2 hours

Answer question Q.1. AND any TWO other questions. Question 1 carries 40 marks. All other questions carry 30 marks each.
Q.1. **Table 1**

<table>
<thead>
<tr>
<th>Activity No</th>
<th>Activity Description</th>
<th>Duration (days)</th>
<th>Dependency Activity No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Define Requirements</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Approve programme</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Appoint coordinator</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Install hardware</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Install software (applications)</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Prepare manuals</td>
<td>12</td>
<td>2, 3</td>
</tr>
<tr>
<td>7</td>
<td>Conduct Integration test</td>
<td>5</td>
<td>5, 6</td>
</tr>
<tr>
<td>8</td>
<td>Prepare User familiarisation</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>Roll-out</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

(a) Using the data provided in Table 1 and the BS 6079-1 *Activity-on-Node* diagramming technique:

i. Prepare an *Activity-on-Node* network diagram.  
   (10 marks)

ii. Calculate and highlight the *earliest start time* and *latest finish time* of all activities.  
   (5 marks)

iii. Calculate the *duration* of the project.  
    (5 marks)

iv. State the activities that form the *critical path*.  
   (5 marks)

v. Calculate the *float* for all non-critical activities.  
   (5 marks)

(b) Explain how a project management CASE tool that you are familiar with supports the Project Manager with these and other project management activities.  
   (10 marks)

Q.2. EirSmart Ltd is a young systems organisation involved in designing, supplying and installing quality software products. The management at EirSmart have decided that their attitude to project management needs to be formalised in a company wide fully documented methodology.

(a) In the context of Information Systems development, define the term *methodology*.  
   (5 marks)

(b) As Technical Director at EirSmart Ltd. suggest and fully explain a comprehensive project management methodology appropriate to this young organisation.  
   (25 marks)
Q.3. (a) Briefly explain TWO measurement techniques that can be used for estimating the size, effort or duration of a systems project.

(b) Explain how software quality is addressed by these measurements techniques.

(c) Suggest a strategy that can be used during the life of a systems project in order to achieve a quality product.

Q.4. (a) i. Write a definition for Project Control.

ii. Explain FIVE Control Structures that you would implement during the development life cycle for a new Enterprise Information System.

(b) Discuss THREE International standards that have been devised for project management.