B.Sc in Information Technology

YEAR 2

SUPPLEMENTAL EXAMINATIONS 2004

I.S. PROJECT MANAGEMENT

MR. RONAN FITZPATRICK
DR. BRENDAN O’SHEA
MR. CYRIL McGANN

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

Each question carries a total of 25 marks.
Q.1. (a) A work breakdown structure is a listing of activities, which forms part of the project planning process.
   
i. State and explain the details that are required for each activity in order to create a critical path network diagram. (6 marks)
ii. Explain the project management information that can be derived from a critical path network diagram. (7 marks)

(b) *Activity-on-arrow and activity-on-node* are two popular techniques for preparing a critical path network diagram. With the aid of suitable diagrams, compare and contrast these two techniques in the context of an Information Systems project. (12 marks)

Q.2. Explain what you understand by Information Systems risk and discuss how you would implement an Information Systems risk management strategy. (25 marks)

Q.3. (a) In the context of software measurement explain the terms *ballpark estimate* and *historical data*. (4 marks)

(b) Explain how *function point analysis* can be used for project estimation. (15 marks)

(c) Discuss what you would measure in order to determine the usability of a software product. (6 marks)

Q.4. (a) Identify TWO *CASE tools* that can be used during an Information Systems Planning or development project. (4 marks)

(b) For each of these *CASE tools* explain how they are used during the system life cycle. (14 marks)

(c) Excluding the CASE tools that you identify and explain in sections (a) and (b) identify and explain an evaluation tool of your choice that can be used to evaluate the software product either in progress or at completion. (7 marks)

[Turn over]
Q.5. (a) As IT Director you are responsible for appointing a Project Manager for a new MIS development project. Describe the qualifications and skills that you would require applicants for the position to possess.  
(b) Explain in detail the main clauses you would include in this Project Manager’s Employment Contract.

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

i. Constructive Cost Model (CoCoMo);
ii. The Gantt Chart;
iii. Configuration management;
iv. Dummy activities;
v. Quality considerations when acquiring commercial off-the-shelf (COTS) software;
vi. Resource levelling.