



# UNIVERSITY of LIMERICK

O L L S C O I L L U I M N I G H

COLLEGE of INFORMATICS *and* ELECTRONICS

Department of Computer Science  
and Information Systems

## End-of-Semester Assessment Paper

Academic Year:	2007/2008	Semester:	Autumn
Module Title:	Project Management in Practice / Introduction to Project Management	Module Code:	CS4457/CS5041
Duration of Exam:	2 ½ hours	Percent of Total Marks:	60
Lecturer(s):	Michael T. Lane	Paper marked out of :	60

### Instructions to Candidates:

- Please answer any 4 questions.
- Each question is 15 marks. Note that sub-parts of questions carry different amounts of marks.

- Q1. Describe project management from the perspective of the Project Management Body of Knowledge (PMBOK).

Your answer needs to introduce the subject by defining the characteristics of projects and then explaining what project management involves. Your explanation must include brief descriptions of the different process groups used throughout a project lifecycle and also elaborate on the management of the triple constraints impacting projects. It is very important that your description of the triple constraints is supported by an example of how these constraints may conflict with each other as a project progresses.

15 Marks

- Q. 2 The PMI's Project Management Body of Knowledge (PMBOK) segments the topic of project management into 9 knowledge areas. Please provide a brief paragraph on each of the nine knowledge areas presented by the PMBOK. Each knowledge area description needs to address the following two points:

- (1) It must clearly define the main project management responsibilities addressed by the knowledge area (2-4 lines).
- (2) It must be supported by a simple example (2-4 lines) of one particular task you would carry out as part of your work within the knowledge area being described.

15 Marks

- Q 3. a) Project scope consists of a lot more than just the various parts or features of the software produced by a project – discuss.

3 Marks

- b) Imagine you are manager of a project team that has been asked to develop a software project and you need to determine all the work involved in the project. Describe how you would explain to your team what a “Work Breakdown Structure” (WBS) is and how you would organize a session with your team where you would all evolve the WBS.

8 Marks

- c) PRINCE is a project management method or approach that was created as a result of concerns about the poor performance of many UK IT projects. If you were asked to use PRINCE to guide your project tasks, the basic philosophy of the method would influence your thinking about certain aspects of the work that needs to be done. Describe what these aspects would be and what work-items you would need to consider including in your project scope. HINT: The philosophy of the method can be gleaned from the expansion of the acronym PRINCE to its full name.

4 Marks

- Q 4. a) Describe different types of dependencies that you must consider when attempting to put logic (sequence) on the list of tasks involved in a project. Each description should be supported by a clear example of the dependency. In each example, describe how you would sequence the sample tasks in order to manage the dependency.

6 Marks

- b) Describe the critical path method. Your answer should refer to concepts such as task duration, forward and backward pass, project duration, critical path and float.

Consider a situation where you have established your project's critical path and determined that you have many tasks with float. How might you use this knowledge to either ensure that you meet your project's duration or optimize your project by reducing the duration.

9 Marks

- Q5. a) What are project stakeholders? Why are they important? As the project manager, at what point should you consider the various stakeholders of the project?

4 Marks

- b) Describe the technique of stakeholder analysis. Your description should include an outline of how you would work with the various stakeholder categories as a result of your analysis.

6 Marks

- c) You are asked to manage a software development project to build a software system that will dramatically change existing procedures within the university. Attendance at all student lectures will be automatically logged as will start and completion times of lectures. This will influence how examinations must be graded and will also require student services to automatically block any students from continuing their studies if they fail to meet minimum attendance requirements.

Please conduct a stakeholder analysis of this project. Given that this exercise could take a large amount of time, please restrict your analysis to the identification and analysis of one stakeholder per different stakeholder analysis category. Describe why you analyzed the stakeholder as you did and how you would consequently work with them in the project.

PLEASE NOTE – you are expected to spend no more than 10 minutes in this answer !

5 Marks

- Q6. a) How would you establish a project's cost baseline? 4 Marks
- b) How would you control a project using earned value management? Your answer needs to describe the concepts of planned value, actual costs and earned value. 8 Marks
- c) You are project manager for a project that is due to take 6 months. You have planned to complete 100K worth of activities each month, so the overall budget for the project is 600K. At the end of month 3 you review your project and find that as expected, your planned value for that time is 300K. However, you discover that you have spent 500K. What should you do ? 3 Marks
- Q7. PMI surveys have shown risk management to consistently rank as one of the top 3 critical success factors for project management.
- a) Describe how you would identify project risk. What techniques would you use?. When would you look at project risk? 3 Marks
- b) Describe the technique of qualitative risk analysis and how you would use it to rank project risks. 6 Marks
- c) You are the project manager for a project that is well underway. Describe how you would use a risk register (also known as a risk log), to manage the risks of your project. Your answer should include key columns you feel should be in such a log and how you would update the document. 6 Marks