

National Exams May 2005

98 – Soft – B4, Software Project Management

3 hours duration

NOTES:

1. If doubt exists as to the interpretation of any question, the candidate is urged to submit with the answer paper, a clear statement of any assumptions made.
2. No calculator permitted. This is a Closed Book exam.
3. Any five questions constitute a complete paper. Only the first five questions as they appear in your answer book will be marked.
4. All questions are of equal value.
5. Use point form. Each written answer should include 20 different points for 20 marks.

1. Identify five items that should be included in any good Software Project Management Plan. Explain the items and provide examples of each.
2. Compare Cocomo and Function Point Analysis as software estimation techniques.
3. Metrics
 - (a) What are five types of software metrics?
 - (b) Provide examples of each of the above metrics.
 - (c) A '10 second response time' is a poor metric. Why?
 - (d) What are five items that you could measure to ensure that Commercial-Off-The-Shelf (COTS) software meets your needs?
4. Risk management
 - (a) What is Risk Exposure?
 - (b) What are five general *types* of risks?
 - (c) What are five *specific* risks associated with implementation of software?
 - (d) How would you mitigate the above risks?
5.
 - (a) What is Software Configuration Management (SCM)?
 - (b) Describe how CASE tools might help with SCM.
 - (c) Describe how you would perform SCM on a moderately sized Java implementation using a code development environment in which you had 50 classes and 200 methods.
6. Legal Issues
 - (a) Are legal contracts necessary for software development projects? Why?
 - (b) What intellectual property issues are associated with software projects?
7.
 - (a) Many software managers believe that people management is a primary reason for system success. Defend or oppose this statement.
 - (b) Describe how PERT or GANTT charts may help with software management.
8. Describe how you would plan and manage the major software development project for the 2006 Winter Olympics. You may assume that requirements are given and the final deadline for the software is February 1, 2006. Use components of the trade-off triangle (Cost, Time, Quality) in your answer.

Marking Scheme

1. 20 marks total (5 items times 4 marks each)
2. 20 marks total (descriptions 10 marks; comparison 10 marks)
3. 20 marks total (5 marks per section)
4. 20 marks total (5 marks per section)
5. (a) 5 marks
(b) 5 marks
(c) 10 marks
6. (a) 10 marks (5 marks necessity; 5 marks why)
(b) 10 marks
7. 20 marks total (10 marks per section)
8. 20 marks total