

5 questions on 1 page. 100 marks total. 50 minutes total Open Book & Notes
Answer ALL 5 questions. All questions have equal weight. WRITE LEGIBLY!

1. Assume that the University of Toronto Rules on Plagiarism have been amended to **allow software reuse** by *individuals* in programming assignments.

- a) Would it be worthwhile for an undergraduate student to create a *personal reuse library*?
Give a cost/benefit argument to justify your answer.
- b) If you were creating such a library what reusable software components would you want to include?

2. You are managing a large software project for a Canadian software company. In order to get enough developers to complete the project on time you are using development teams at your company's offices in Vancouver, Edmonton, Toronto, Ottawa, Montreal and Halifax.
How would you handle version control and software configuration management for this distributed development effort?

3. As manager of software maintenance for a large company you have been complaining for years about the poor quality of the software that your team is being asked to maintain. The company has finally listened to your complaints and has asked you to review the *software development processes* that are used during *design, implementation and testing* and to make suggestions for changes and improvement.

What aspects of the design, implementation and testing processes would you look at first?

What are the most important things that can be done during design, implementation and testing to improve the *maintainability* of a software system?

4. Suppose you are the manager of a project that is getting seriously behind schedule. Your team is having severe problems with testing one particular subsystem. Your client is pressing you to deliver the system on time.

How would you handle this situation?

What would you tell the client? What would you tell your manager?

How would you handle the same situation if you were a member of the testing team and the manager was not paying serious attention to your problems?

5. The Generic Risks that might affect a software project are:

- Misunderstanding the Requirements.
- Personnel turnover, loss of key people.
- Inadequate time for testing.
- Misunderstanding the target environment.
- Disputes among project teams.
- Misestimation of the project difficulty or complexity.

Which of these risks did your team encounter in the course project?

How did the risk affect your team? What steps did your team take to deal with the risk?