

Mid Term Test (25% of course mark)

October 30, 2002.

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!****If you need to make any assumptions to answer a question, state those assumptions clearly in your test book.**

1. The large software project that you are managing is doing very well. Your latest estimates predict that your team will finish the project at the end of June 2003, 3 months ahead of schedule and 15% under budget.

You now have to make a choice about what to do in this situation. You have thought of three options

1. Finish early in June, release the project team to work on other projects.
Give the unused budget back to your boss.
2. Use the 3 months and the budget to do more testing on the project to try and find any residual errors.
3. Use the 3 months and the budget to improve the internal and external documentation for the project.

Which alternative would you choose? Justify your answer.

2. Suppose you are managing a large project concerning the development of a complete student records (transcripts, course enrollment, etc.) system for UofT. You may opt for one of two strategies:

1. Start with a thorough analysis of user requirements, after which the system is built according to this requirements.
2. Start with a less complete requirements analysis phase, after which a pilot version is developed. This pilot version is installed in a few small departments/faculties. Further development of the system is guided by the experience gained in working with the pilot version.

Discuss the advantages and disadvantages of each both strategies. Which strategy do you favor?

3. Discuss the advantages and disadvantages of letting people rotate between projects from different application domains as opposed to letting them become true experts in one particular application domain.

4. Assume you are running a small software company with six employees. Your company is too small to have a separate Software Quality Assurance department. Discuss what you could do in your small company to achieve the same advantages as having a full SQA department.

5. Assume that you are managing a large software project. You thought that the project was making good progress until a simulation appeared to show that the system you were developing would not meet its performance (speed and memory) objectives. Your programming team proposes a *quick fix* to this problem that will significantly *increase* the *coupling* between modules in the system. An alternative solution is to delay completion of the project by six months while your team does a complete redesign of the key data structures.

How would you respond to this situation and to your teams quick fix proposal. Justify your answer.