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Name: _____

**CS 361: Software Engineering I
Winter 2005, Dr. Burnett**

Midterm Exam

1. (40 pts total) Short answer: No more than 3 sentences is expected for each. Some will be shorter.

a. True or false: In Extreme Programming, there is no notion of requirements. Instead, the team just starts testing and programming.

Explain your answer.

b. Give 2 examples of non-functional requirements. Your examples should be specific requirements, not general descriptions.

c. Give 2 examples of functional requirements. Your examples should be specific requirements, not general descriptions.

d. Provide one example of a fit criterion for one of your requirements above (say which one) and explain what makes it a fit criterion.

e. What happens in a post-mortem?

f. Suppose my spreadsheet program is required to have the usual feature of immediately recalculating results whenever the user changes a formula or value. How would you rate the “customer satisfaction” and “customer dissatisfaction” scores of this requirement (1 to 5, 1=low, 5=high)? Explain your answer.

g. Explain the notion of “audience prerequisites”.

h. When doing risk exposure analysis, what should you as a software team leader do about a “show stopper”?

Important: If you need to make any assumptions about any of these problems, write them down on the test so that we know what you're thinking!

2. (10 pts total) For HW #3, you chose a team paradigm, elected a team leader, and chose a software process. Suppose you chose the Open team paradigm and the RUP software process.

a. (short answer) Is your team leader's role in decision making the same the same as if you had chosen the Closed paradigm? Briefly explain your answer.

b. (short answer) List one of your team leader's (major or minor) responsibilities that would be different if you were XP instead of RUP. Briefly explain your answer.

*Important: If you need to make any assumptions about any of these problems, **write them down** on the test so that we know what you're thinking!*

3. (15 pts): Suppose you are leader of an RUP team. You have been given the project of creating the word processing system of HW #2.

Developing requirements is a 5-step process. The first is to get an overall view of the system's scope, and HW #2 provided that for you already.

a. List the remaining four steps and say what they are (about 1 sentence each here).

b. For each step, as team leader, briefly say what your team will do for each. Be specific and directly relate to your (hypothetical) RUP team and its development of a word processing system, don't just give vague descriptions of what someone might do in a generic project.

*Important: If you need to make any assumptions about any of these problems, **write them down** on the test so that we know what you're thinking!*

4. (10 pts total)

- a. What are the Cognitive Dimensions? (Say what they are in general. You do not need to list them.)
- b. Which of the step(s) in the requirements 5-step process do the Cognitive Dimensions relate to, and how?

5. (10 pts) For the word processing system of HW #2, write an example use-case. You may use either an “essential” use case or a detailed one, but you must state which kind you are doing.

*Important: If you need to make any assumptions about any of these problems, **write them down** on the test so that we know what you're thinking!*

6. (15 pts) Risk management: Here is a reminder of the steps of risk management:
1. Risk discovery
 2. Exposure analysis
 3. Contingency planning
 4. Mitigation
 5. Integration with the rest of your project management/scheduling
 6. Ongoing transition monitoring
- a. First, briefly (1 sentence) describe one risk that is likely to occur on a software development project. It must not be a “show stopper”.
- b. Then provide details of each of the above steps 2-6 as they relate to the particular risk you chose. (For example, for step 6 you should be specific about the transitions you are monitoring and how you are doing so.)

*Important: If you need to make any assumptions about any of these problems, **write them down** on the test so that we know what you're thinking!*