

Name:

College of Charleston
Department of Computer Science
CSCI 362 Software Engineering
Fall 2007
Dr. Jim Bowring

Midterm Examination

Answer all questions with complete sentences unless noted otherwise in the question. You may use the back of the exam papers to organize your thoughts and for continuations of answers when necessary. Please write your answers legibly. Point values are denoted as “(n).”

1. (2) What does the acronym CASE stand for?

2. (2) Cleanroom software development uses what kind of testing?

3. (5) What are the fundamental activities that are common to all software processes?

4. (5) What are the three important stages in the testing process?

5. (5) What are three types of interface that may have to be defined in a requirements document?

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6. (10) The invention of statecharts overcame a major problem with state-transition diagrams (finite state machines) by introducing three improvements. What was the problem and what were the three improvements?

7. (5) Describe four types of non-functional requirements that may be placed on a system. Give examples of each.

8. (2) What is the difference between a milestone and a deliverable?

9. (5) Explain how bar charts and activity networks give different views of a project schedule.

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12. (2) What should be included in an algebraic specification of an object?

13. (2) Explain the advantages of using formal specifications in requirements engineering.

14. (10) Model the data processing that might take place in an e-mail system. You should model the mail-sending and mail-receiving processing separately.

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17. (5) Suggest how the software systems used in a car can help with the decommissioning (scrapping) of the overall system.

18. (5) Briefly describe two types of evolutionary development.

19. (5) Suggest four risks that may threaten the success of a software project.

20. (5) What activities are part of the process of risk analysis?

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Extra Credit:

1. (4) Why does Fred Brooks believe that the concept of the Man-Month in software engineering is mythical?

2. (2) What does the acronym ACM stand for?

3. (2) Who is the author of the paper "On Visual Formalisms?"

4. (2) What is the title of the reading whose author is Eric Raymond?
