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10IS51

**Fifth Semester B.E. Degree Examination, June/July 2013**  
**Software Engineering**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting at least TWO questions from each part.**

**PART – A**

- 1 a. What are the attributes of a good software? (04 Marks)  
b. Define software engineering. Explain the different types of software products. (06 Marks)  
c. Explain emergent system properties with examples. (10 Marks)
- 2 a. Explain the different types of critical systems. (06 Marks)  
b. Explain security terminologies. (05 Marks)  
c. Describe rational unified process with block diagram. (09 Marks)
- 3 a. Explain the metrics for specifying non-functional requirements. (06 Marks)  
b. Explain requirement engineering process. (06 Marks)  
c. Explain the structure of the requirements document. (08 Marks)
- 4 a. List and explain different types of system models. (10 Marks)  
b. What are project management activities? Explain. (10 Marks)

**PART – B**

- 5 a. With an example describe the repository model and give its advantages and disadvantages. (10 Marks)  
b. Draw and explain state diagram for a typical weather station. (10 Marks)
- 6 a. Explain the principles of agile methods. (06 Marks)  
b. What is pair programming? Explain its advantages. (06 Marks)  
c. Explain Lehman's laws of program evolution dynamics. (08 Marks)
- 7 a. Briefly explain the roles in inspection process. (06 Marks)  
b. Explain clean-room software development. (06 Marks)  
c. Explain general model of testing with the help of block diagram. (08 Marks)
- 8 a. Explain any five factors governing staff selection. (05 Marks)  
b. What are the factors that influence group working? (05 Marks)  
c. Explain cost estimation techniques. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.