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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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