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10IS51

**Fifth Semester B.E. Degree Examination, June/July 2015**  
**Software Engineering**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, selecting  
atleast TWO questions from each part.**

**PART – A**

- 1 a. What is Software Engineering? (02 Marks)  
b. List the attributes of good software system and key challenges facing software engineering. (10 Marks)  
c. What are legacy systems? Explain components of legacy systems. (08 Marks)
- 2 a. Explain dimensions of dependability properties and system properties that are related to dependability. (08 Marks)  
b. Explain the approaches to improve reliability. (03 Marks)  
c. With figure explain the phases of RUP. (05 Marks)  
d. Explain testing phases with figure. (04 Marks)
- 3 a. Distinguish between functional and non functional requirements with example. (04 Marks)  
b. Explain the types of non functional requirements with example. (06 Marks)  
c. Identify the stakeholders of ATM system and classify them according to viewpoints. (10 Marks)
- 4 a. Explain any 2 types of object models in detail. (08 Marks)  
b. Explain state machine model of micro oven. (06 Marks)  
c. Differentiate between milestones and deliverables. (02 Marks)  
d. List the activities of risk management with figure. (04 Marks)

**PART – B**

- 5 a. Explain client server architecture with example. (06 Marks)  
b. Explain with figures centralized control and event driven systems. (10 Marks)  
c. List the proposals made about how to identify object classes. (04 Marks)
- 6 a. What is pair programming? Write its advantages. (04 Marks)  
b. What is extreme programming? List principles of agile method. (06 Marks)  
c. Explain activities involved in reengineering process with figure. (10 Marks)
- 7 a. Write the difference between verification and validation. (10 Marks)  
b. Explain the clean room software development process with figure in detail. (05 Marks)  
c. List classes of interface errors. (05 Marks)
- 8 Write short notes on the following:
  - a. Factors governing staff selection.
  - b. PCMM levels
  - c. Submodels of COCOMO II
  - d. Maslow's hierarchy of needs. (20 Marks)

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