

# ONE TIME EXIT SCHEME

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10IS51

## Fifth Semester B.E. Degree Examination, April 2018 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? What is software engineering? Explain. (08 Marks)  
b. What are the attributes of good software? (06 Marks)  
c. What are the key challenges facing software engineering? (06 Marks)
- 2 a. Explain safety critical system with an example. (06 Marks)  
b. What is software process model? Explain spiral developmental model. (08 Marks)  
c. What is RUP? Explain. (06 Marks)
- 3 a. Explain the requirements engineering process. (08 Marks)  
b. Give the IEEE standard for requirements document structure. (08 Marks)  
c. Differentiate between functional and non-functional requirements. (04 Marks)
- 4 a. What are the different types of system models? Explain. (06 Marks)  
b. Explain the state machine model of microwave oven. (06 Marks)  
c. What are the project management activities? (08 Marks)

### PART – B

- 5 a. Explain the need for architectural design. (04 Marks)  
b. Explain organizational styles. (08 Marks)  
c. What are modular decomposition styles? (08 Marks)
- 6 a. What are agile methods? Explain. (06 Marks)  
b. What is software evolution? Explain. (06 Marks)  
c. Explain the legacy system evolution process. (08 Marks)
- 7 a. Differentiate between component testing and system testing, unit testing and integration testing. (06 Marks)  
b. Explain the clean room software development process. (08 Marks)  
c. What are the different inspection roles in program inspection process? (06 Marks)
- 8 Write short notes on :  
a. Dependability  
b. Software reuse  
c. Control styles  
d. Software testing (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any recitation of identification number to evaluator and for evaluation will be treated as 0. P. 8 - 50 will be treated as 0.