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## Fourth Semester B.E. Degree Examination, June/July 2019 Software Engineering

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Define software. Explain essential attributes of good software. (08 Marks)  
 b. Explain different types of application software's. (06 Marks)  
 c. Explain Bohem's spiral model. (06 Marks)

OR

- 2 a. Explain a general model of the design process with block diagram. (06 Marks)  
 b. Explain the structure of requirement document. (08 Marks)  
 c. Explain requirement elicitation and analysis process. (06 Marks)

### Module-2

- 3 a. Explain context models with an example. (08 Marks)  
 b. Explain : i) Generalization ii) Aggregation. (06 Marks)  
 c. Draw state diagram for working of microwave oven. (06 Marks)

OR

- 4 a. Explain Rational Unified Process (RUP). (08 Marks)  
 b. Draw UML state diagram for weather station system. (08 Marks)  
 c. Discuss in short about open source licensing. (04 Marks)

### Module-3

- 5 a. Define testing. Explain interface testing. (08 Marks)  
 b. Discuss TDD(Test Driven Development) (06 Marks)  
 c. Explain user testing. (06 Marks)

OR

- 6 a. Define software evolution. Explain software evolution process with block diagram. (08 Marks)  
 b. Discuss Lehman's laws of program evolution dynamics. (06 Marks)  
 c. Discuss four strategic options for legacy system management. (06 Marks)

### Module-4

- 7 a. Discuss factors affecting software pricing. (10 Marks)  
 b. Explain project scheduling process. (10 Marks)

OR

- 8 a. Discuss software quality attributes. (08 Marks)  
 b. Discuss the various inspection checks in program inspection. (06 Marks)  
 c. Discuss the relationships between internal and external quality attributes. (06 Marks)

### Module-5

- 9 a. Explain two ways of coping with change and changing requirements. (10 Marks)  
 b. Explain extreme programming practices. (10 Marks)

OR

- 10 a. Explain the extreme programming release cycle. (08 Marks)  
 b. Write short note on pair programming. (06 Marks)  
 c. Explain SCRUM process. (06 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.