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## Fourth Semester B.E. Degree Examination, Aug./Sept. 2020 Software Engineering

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. What are the attributes of good software? (04 Marks)
- b. Construct and explain the water fall model of software development process. (05 Marks)
- c. Write a note on requirement elicitation and analysis. (07 Marks)

**OR**

- 2 a. What are the professional and ethical responsibility of software engineering. (04 Marks)
- b. Explain insulin pump system by constructing its activity model. (06 Marks)
- c. Briefly describe the different types of non-functional requirements. (06 Marks)

### Module-2

- 3 a. List out the different types of UML diagrams. And explain process model of involuntary detention in MHC-PMS by constructing activity diagram. (08 Marks)
- b. Determine the state diagram for the weather station system. Explain how it responds to request for various services. (08 Marks)

**OR**

- 4 a. What are the different implementation issues in software Engineering? (08 Marks)
- b. Construct the class diagram for MHC-PMS which represents classes and association between the classes. Also explain the generalization and aggregation techniques. (08 Marks)

### Module-3

- 5 a. What are the different types of interfaces between program components and interface errors? (08 Marks)
- b. Analyze the benefits of reengineering over replacement. With a block diagram describe the activities in the reengineering process. (08 Marks)

**OR**

- 6 a. List the advantages of software inspection over testing and show that how inspection and testing supports in validation and verification of the software process. (08 Marks)
- b. Describe the factors used in environment assessment and application assessment. (06 Marks)
- c. Construct the block diagram of the software evolution process. (02 Marks)

### Module-4

- 7 a. What are the factors affecting software pricing. (03 Marks)
- b. Construct and explain the UML activity diagram for the project planning. (05 Marks)
- c. With necessary diagram, describe the phaser of software review process. (08 Marks)

**OR**

- 8 a. Illustrate how Agile planning is applied in "planning in XP" (08 Marks)
- b. Write a note on inspection checklist. (05 Marks)
- c. List out the software quality attributes. (03 Marks)

### Module-5

- 9 a. Explain Boehm's spiral model. (08 Marks)
- b. Summarize the practices involved in extreme programming. (08 Marks)

**OR**

- 10 a. Describe how SCRUM process helps in Agile project management. (08 Marks)
- b. List and explain the phases of Rational Unified process (RUP) (08 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.