

# CBCS SCHEME

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18CS35

## Third Semester B.E. Degree Examination, Feb./Mar. 2022 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 engineering. What are the different types of software products? (06 Marks)
- b. Explain briefly the Software Engineering Ethics. (06 Marks)
- c. List and explain the different types of Application Softwares. (08 Marks)

OR

- 2 a. What are the fundamental software process activities? With neat diagram, explain requirement engineering process. (08 Marks)
- b. With neat diagram, explain Bohem's Spiral model. (08 Marks)
- c. Explain Re-use oriented Software Engineering. (04 Marks)

### Module-2

- 3 a. What is object orientation? Explain the characteristics of object oriented approach. (10 Marks)
- b. Define model. Explain the three different models of object orientation. (10 Marks)

OR

- 4 a. Explain the following with suitable diagrams:  
(i) Links and Associations  
(ii) Generalization (10 Marks)
- b. With neat diagram, explain the class model of a Windowing System. (10 Marks)

### Module-3

- 5 a. With neat diagram, explain the context model for MHC-PMS system. (10 Marks)
- b. Explain the state diagram of microwave oven. (10 Marks)

OR

- 6 a. Explain the Rational Unified Process. (06 Marks)
- b. Explain Design Pattern with UML model of the observer model. (08 Marks)
- c. What are the different implementation issues of Software Engineering? (06 Marks)

### Module-4

- 7 a. What are the two distinct goals of Software Testing? (05 Marks)
- b. Explain the three different types of testing carried out during software development. (05 Marks)
- c. What are the different types of user testing? With neat diagram, explain the six stages of acceptance testing process. (10 Marks)

OR

- 8 a. Write the Lemman's law of program dynamic evolution. (06 Marks)
- b. With neat diagram, explain the software reengineering process activities. (08 Marks)
- c. What are the four strategic options for Legacy Systems? (06 Marks)

**Module-5**

- 9 a. What are the factors affecting the pricing of software product? (04 Marks)  
b. With neat diagram, explain the project planning process. (06 Marks)  
c. With neat diagram, explain the COCOMO – II estimation model. (10 Marks)

**OR**

- 10 a. Explain the product standards and process standards in software quality management. (06 Marks)  
b. Explain three phases of software review process. (08 Marks)  
c. Explain the various inspection checks in the program inspection. (06 Marks)

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