



# CBCS SCHEME

17CS45

## Fourth Semester B.E. Degree Examination, Jan./Feb. 2021 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. What is a software process model? Explain briefly different software process models. (10 Marks)  
b. With the help of neat diagram, explain insulin pump control system. (10 Marks)

OR

- 2 a. With a neat diagram, explain Bohem's spiral model. (10 Marks)  
b. List and explain any five software engineering code of ethics. (10 Marks)

### Module-2

- 3 a. Explain Abstraction, Inheritance Polymorphism and Encapsulation with examples. (10 Marks)  
b. Draw context model for an ATM system. (10 Marks)

OR

- 4 a. Describe different types of object oriented modeling. (10 Marks)  
b. Explain Class and objects with suitable examples. (05 Marks)  
c. Write UML notation for class and objects. (05 Marks)

### Module-3

- 5 a. Explain Class diagram, Generalization and Aggregation with examples. (10 Marks)  
b. Describe in short about open source Licensing. (10 Marks)

OR

- 6 a. Explain Use case models with examples. (10 Marks)  
b. Explain Interaction models and behavioral models with examples. (10 Marks)

### Module-4

- 7 a. Define Testing, also explain interface testing with examples. (10 Marks)  
b. Discuss Leman's laws of program evolution dynamics. (10 Marks)

OR

- 8 a. Discuss four strategic options for legacy system management. (10 Marks)  
b. What is software maintenance? Explain three different types of software maintenance. (10 Marks)

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.

**Module-5**

- 9 a. What is the purpose of program inspection? Explain different fault classes. (10 Marks)  
b. What is the use of project plan? Describe the different sections of project plan for plan document development. (10 Marks)
- OR**
- 10 a. What is software pricing? Discuss factors affecting software process. (10 Marks)  
b. Write any four product and process standards. (10 Marks)

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