

CBCS SCHEME

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20MCA24

Second Semester MCA Degree Examination, Jan./Feb. 2023 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. Describe the professional and ethical responsibilities of a Software Engineer. (10 Marks)
- b. Differentiate between small systems development and large system development with respect to scaling agile methods. (10 Marks)

OR

- 2 a. List and explain the attributes of good software. (10 Marks)
- b. Describe in detail about extreme programming release cycle with a neat diagram. (10 Marks)

Module-2

- 3 a. Describe the requirements Elicitation and analysis process with a neat diagram. (10 Marks)
- b. Explain in detail about different types of non-functional requirements. (10 Marks)

OR

- 4 a. Explain requirements change management with a neat diagram. (10 Marks)
- b. Discuss in detail about the CBSE process with a neat block diagram. (10 Marks)

Module-3

- 5 a. What is object-orientation? Explain briefly about the stages involved in object oriented methodology. (10 Marks)
- b. What do you mean by abstraction? Discuss different types of modeling techniques used for object-oriented modeling and design. (10 Marks)

OR

- 6 a. Define links and association. Explain UML notations for links and associations with an example. (10 Marks)
- b. Discuss the terms aggregation and composition with an example. (10 Marks)

Module-4

- 7 a. Define state diagram. Also draw the state diagram for telephone line with activities. (10 Marks)
- b. What do you mean by states and events? Discuss different kinds of events. (10 Marks)

OR

- 8 a. What do you mean by swim lane? Explain briefly an activity diagram with swim lanes for servicing an airplane. (10 Marks)
- b. Discuss sequence models. Draw the sequence diagram for a session with an online stock broken. (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. Describe in detail about project scheduling and staffing with an example. (10 Marks)
b. Explain the steps involved in risk management process in detail. (10 Marks)

OR

- 10 a. Illustrate the relationship between function-oriented design and detailed design with a neat diagram. (10 Marks)
b. Define coupling and cohesion. Describe in detail about the types of coupling with suitable examples. (10 Marks)
