

CBCS SCHEME

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15CS42

Fourth Semester B.E. Degree Examination, June/July 2023 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. Explain the various attributes of a good software. (04 Marks)
- b. With a block diagram, explain the water fall process model of software development. (06 Marks)
- c. Give a metrics for specifying non-functional requirements. (06 Marks)

OR

- 2 a. Explain the various professional responsibilities of software engineer. (04 Marks)
- b. With a block diagram, explain the incremental development of software development. (06 Marks)
- c. Give the structure of a requirement document. (06 Marks)

Module-2

- 3 a. Draw the UML activity diagram for the involuntary detention of patient in MHC-PMS system, and explain the various activities involved in it. (08 Marks)
- b. Explain with a figure, the UML generalization hierarchy and aggregation model. (08 Marks)

OR

- 4 a. Draw the UML sequence diagram to withdraw money from ATM and explain the various types of messages involved in it. (08 Marks)
- b. Explain with a figure, the various phases of the rational unified process. (08 Marks)

Module-3

- 5 a. List all the guidelines that are used for the design of test cases. (04 Marks)
- b. Explain with a block diagram, test-driven development. (06 Marks)
- c. With a neat diagram, describe the software evolution process. (06 Marks)

OR

- 6 a. List classes of interface errors. (04 Marks)
- b. Explain the various stages in the acceptance testing process. (06 Marks)
- c. What is program evolution dynamics? Explain Lehman's laws. (06 Marks)

Module-4

- 7 a. Explain the various factors that affect software pricing. (06 Marks)
- b. Explain with block diagram, the project scheduling process. (06 Marks)
- c. List all the software quality attributes. (04 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.

OR

- 8 a. Briefly explain the purpose of each of the sections in a project plan. (06 Marks)
b. Explain algorithmic cost modeling to predict project cost based on estimates of the project size. (06 Marks)
c. List all the product and process standards. (04 Marks)

Module-5

- 9 a. Explain with a block diagram, the process of prototype development. (08 Marks)
b. Explain with a block diagram, the incremental delivery of software. (08 Marks)

OR

- 10 a. Explain the four core principles of agile software development based on SCRUM. (08 Marks)
b. List all the principles behind the agile manifesto. (08 Marks)
