

CBCS SCHEME

17CS45



Fourth Semester B.E. Degree Examination, Dec.2023/Jan.2024 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. Briefly describe essential attributes of good software. (04 Marks)
- b. With necessary sketches, explain an insulin pump control system. (08 Marks)
- c. With a neat sketch explain waterfall model. Also mention its advantages and disadvantages. (08 Marks)

OR

- 2 a. Explain the main activities of requirement engineering activities with a neat sketch. (05 Marks)
- b. Describe Boehm's spiral model with a neat diagram. (07 Marks)
- c. With a suitable explain define a structured specification of a requirement for an insulin pump. (08 Marks)

Module-2

- 3 a. Draw the sequence diagram for view patient information. (05 Marks)
- b. With suitable examples, explain types of Behavioral models. (08 Marks)
- c. Describe the stages of Rational Unified Process(RUP). Also list out the best practices of it. (07 Marks)

OR

- 4 a. Define object and class. Explain various proposals used to identify object classes. (05 Marks)
- b. Explain weather station state diagram. (07 Marks)
- c. Describe the different levels at which software reuse is possible. (04 Marks)
- d. What is open source development? Define different open source licensing general models. (04 Marks)

Module-3

- 5 a. Briefly explain the different types of development testing. (09 Marks)
- b. Explain test driven development. Also mention its benefits. (06 Marks)
- c. Briefly explain User Testing. (05 Marks)

OR

- 6 a. Define program evolution dynamics. Explain different Lehman's law. (09 Marks)
- b. With a neat block diagram, explain the concept of reengineering process. Also mention its advantages. (09 Marks)
- c. List out four strategic options for legacy system management. (02 Marks)

Module-4

- 7 a. Explain different factors affecting software pricing. (05 Marks)
- b. Explain different sections that are included in project planning and organization. (07 Marks)
- c. Describe COCOMO - II is model with its sub models. (08 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. Explain the structure of a quality plan as suggested by Humphrey. (05 Marks)
b. With a neat diagram, describe ISO 9001 standard framework. (07 Marks)
c. With a neat sketch explain the phase of software review process. (08 Marks)

Module-5

- 9 a. Briefly explain the principle of agile methods. (05 Marks)
b. Describe the principles or practices of extreme programming. (10 Marks)
c. Write a note on air programming. (05 Marks)

OR

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- 10 a. With a neat diagram, explain scrum process with its by characteristics. (08 Marks)
b. With suitable reasons, justify why it is different to introduces agile methods into large companies? (04 Marks)
c. With suitable test can example, explain by features of testing in XP. (08 Marks)
