



CBCS SCHEME

15CS42

Fourth Semester B.E. Degree Examination, Jan./Feb. 2021 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. Define software engineering. Explain the different types of software product. (06 Marks)
- b. Explain the waterfall software process model. (06 Marks)
- c. With a neat diagram, explain the types of non-functional requirement. (04 Marks)

OR

- 2 a. Explain the essential attributes of good software. (06 Marks)
- b. Explain software controlled Insulin pump with neat diagram. (06 Marks)
- c. Explain the requirements elicitation and analysis process. (04 Marks)

Module-2

- 3 a. Explain the context model of Mental Health Care Patient Management System (MHC-PMS). (06 Marks)
- b. With neat diagram, explain phases of Rational Unified Process (RUP) and also list best practices of RUP. (06 Marks)
- c. Explain the different levels of reuse in implementation issues. (04 Marks)

OR

- 4 a. Explain the classes and associations in structural models with reference to MHC-PMS. (06 Marks)
- b. Define pattern. Explain the four essential elements of design pattern. (06 Marks)
- c. Explain open source licensing models. (04 Marks)

Module-3

- 5 a. Explain two distinct goals of software testing and also explain a model of software testing process. (08 Marks)
- b. Discuss the Lehman's laws for program evolution dynamics. (08 Marks)

OR

- 6 a. Explain various types of interface errors and also discuss three classes of interface errors. (08 Marks)
- b. Explain three different types of software maintenance. Why it is more expensive to add functionality after a system is in operation than its development? (08 Marks)

Module-4

- 7 a. Define Milestones and Deliverables. Explain the project scheduling process with neat diagram. (08 Marks)
- b. With a neat diagram, explain the review process in software quality management. (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 factors affecting software pricing. List the different types of project plan supplements. (08 Marks)
b. With a neat diagram, explain ISO 9001 core process for quality management. (08 Marks)

Module-5

- 9 a. With a neat diagram explain the system evolution. (08 Marks)
b. Discuss various principles used in Agile method and also explain why it is difficult to realize Agile method principles. (08 Marks)

OR

- 10 a. Define SCRUM and also explain its principles along with its advantages and disadvantages. (08 Marks)
b. With a neat diagram, explain plan-driven and agile approaches to system specification. (08 Marks)

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