



CBCS SCHEME

21CS61

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2026 Software Engineering and Project Management

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Discuss the Software Application domains and unique nature of Web Apps. (10 Marks)
- b. Explain the Evolutionary process models in detail with diagram. (10 Marks)

OR

- 2 a. How the framework activities, the actions and tasks that occur within each framework activity are organized with respect to sequence and time? Justify your answers with process flow types along with diagrams. (10 Marks)
- b. How the Software Engineering Team will define the set of framework activities by applying the spiral model? Justify with the necessary diagram. (10 Marks)

Module-2

- 3 a. Construct the UML use case diagram for SafeHome home security function. Provide different use case descriptions and actors required for the above case-study. (10 Marks)
- b. What are Negotiating and validating requirements? Explain. (10 Marks)

OR

- 4 a. Explain the class-based modeling with an example. (10 Marks)
- b. Construct an UML activity diagram for eliciting requirements. (10 Marks)

Module-3

- 5 a. Outline the Agility principles and emphasize the importance of human factors in agility. (10 Marks)
- b. How the Extreme Programming (XP) process works? Explain with diagrams, Also outline the 6 practices of Industrial Extreme Programming (IXP) (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.

OR

- 6 a. Outline the construction principles that guide framework activities. (10 Marks)
- b. Explain the following agile process models with diagrams
- i) Adaptive Software Develop (ASD)
 - ii) Scrum
- (10 Marks)

Module-4

- 7 a. Explain the typical sequence of software development activities recommended in the ISO 12207 international standard with necessary diagram. (10 Marks)
- b. Outline the Project Management Activities. Also explain the principal Project Management Processes. (10 Marks)

OR

- 8 a. How to Set Objectives in Project Management? Explain. (10 Marks)
- b. Discuss the Project Control Cycle. Also differentiate, Project Management Life Cycle with Software Development Life Cycle. (10 Marks)

Module-5

- 9 a. Explain the place of software quality in stepwise in project planning with diagram. (10 Marks)
- b. Compare Product Versus Process Quality Management in detail with diagram. (10 Marks)

OR

- 10 a. Describe the levels of SEI Capability Maturity Model (CMM). (10 Marks)
- b. Discuss the Test Case Design with level of testing. (10 Marks)

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