

II B. Tech I Semester Regular/Supplementary Examinations, December-2023
SOFTWARE ENGINEERING
(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions each Question from each unit.

All Questions carry **Equal** Marks

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UNIT-I

- 1 a) Define Software Engineering. What are prescriptive process Models? Explain. [7M]  
b) What is various software Myths? Explain about the Unified process. [7M]

OR

- 2 a) What are different software process Models? Discuss with the help of examples. [7M]  
b) How to assess the process and improve it? Explain. [7M]

UNIT-II

- 3 a) Explain about Agile process and Agile Process Models. [7M]  
b) What is the Requirements Engineering? Describe the methodology to develop Use Cases. [7M]

OR

- 4 a) Elaborate the methodology used to build Requirements Model. [7M]  
b) List and explain the principles that guide the Framework Activity. [7M]

UNIT-III

- 5 a) What are various Requirements Modeling Strategies? Discuss with examples. [7M]  
b) What is requirements analysis and explain tools used to do it? [7M]

OR

- 6 a) Discuss the Requirements Modeling for WebApps. [7M]  
b) Compare scenario-Based modeling with Class-Based Modeling. [7M]

UNIT-IV

- 7 a) Do some research on the design process, design concepts and the Design Model. [7M]  
b) What is software architecture? Discuss the component-Based Development. [7M]

OR

- 8 a) What are different architectural Styles and give their applications. [7M]  
b) Discuss the mechanism of conducting Component Level Design. [7M]



UNIT-V

- 9 a) What are various golden rules applicable to User Interface Design? Explain. [7M]  
b) Describe testing strategies used for Object-Oriented Software Development. [7M]

OR

- 10 a) What are the different goals and Metrics used for Statistical SQA? Discuss. [7M]  
b) Describe White Box and Basis Path Testing methods. [7M]



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UNIT-I

- 1 a) Write briefly the Unique Nature of software and explain about software process. [7M]
b) Elaborate on manager's myths and practitioner's myths.. [7M]

OR

- 2 a) Explain about generic process and Prescriptive process Models. [7M]
b) What is Unified process and how is it different from conventional process? [7M]

UNIT-II

- 3 a) Why the Agile process is chosen than conventional process? Explain. [7M]
b) Describe the steps in developing Use Case and building the Requirements model. [7M]

OR

- 4 a) What are different Agile Process Models? Discuss. [7M]
b) Briefly discuss Requirements Engineering and Eliciting Requirements. [7M]

UNIT-III

- 5 a) What are various steps are to be followed in Requirement Analysis? Discuss. [7M]
b) Write a short note on class-Based Modeling and Flow-Oriented Modeling. [7M]

OR

- 6 a) How do you gather requirements for a Web application? Illustrate. [7M]
b) Describe Scenario-Based Modeling with an example. [7M]

UNIT-IV

- 7 a) What are various phases of software design? Elaborate on various issues to be considered in design. [7M]
b) What are the challenges in component Based software engineering? How to handle them. [7M]

OR



- 8 a) Compare and contrast different architectural styles. [7M]
b) Describe the role of interfaces in a class based component level design.. [7M]

UNIT-V

- 9 a) How golden rules are useful in the process of user Interface Analysis and Design? Discuss. [7M]
b) Briefly discuss SQA and software Testing strategic Issues. [7M]

OR

- 10 Differentiate software testing strategies and Methods. Discuss any two methods of software testing. [14M]



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UNIT-I

- 1 a) What are various software engineering process models? Explain any two specialized process models. [7M]
- b) Give the comparison of personal and team process models. [7M]

OR

- 2 a) What are various advantages and disadvantages of Unified Process when compared to other models? [7M]
- b) Discuss briefly various software Myths and realities. [7M]

UNIT-II

- 3 a) Elaborate on various stages of eXtreme Programming. [7M]
- b) Discuss the role of Negotiating and validating requirements in requirement analysis process. [7M]

OR

- 4 a) What is meant by software engineering Knowledge and explain its core Principles. [7M]
- b) Discuss Eliciting Requirement using Uses Cases with suitable examples. [7M]

UNIT-III

- 5 a) Develop SRS for any known application of your choice. [7M]
- b) Discuss strategies for Requirements Modeling and Class-Based Modeling. [7M]

OR

- 6 a) What is UML and how is it related to flow oriented model? [7M]
- b) Explain requirements models for Web Apps. [7M]

UNIT-IV

- 7 a) What are the principles of class based component design? Explain them. [7M]
- b) Describe Component-Level Design for WebApps and Traditional Component-Based Development. [7M]

OR

- 8 a) What is a software component? Explain the process of designing class-Based components. [7M]  
b) “Architectural design is a creative process satisfying only functional requirements of a system”. Comment. [7M]

UNIT-V

- 9 a) What are various User Interface Design steps? Discuss. [7M]  
b) Describe the role of software quality assurance in software engineering. [7M]

OR

- 10 a) Discuss the elements of software quality assurance and software reliability. [7M]  
b) Explain with examples Basis Path Testing. [7M]



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UNIT-I

- 1 a) Define software Engineering and discuss the Nature of Software. [7M]
b) Discuss briefly the personal and Team Process Models. [7M]

OR

- 2 a) What are various software process models? Explain. [7M]
b) What characteristics differentiates WebApps from other software? Explain them. [7M]

UNIT-II

- 3 a) What are the four basic activities in eXtreme Programming? Explain them. [7M]
b) What are various methods used for software requirements elicitation? Explain. [7M]

OR

- 4 a) What are the four project parameters of Agile? Differentiate between Agile & Scrum. [7M]
b) Discuss about the tool set for the Agile Process. [7M]

UNIT-III

- 5 a) What is Requirements Analysis? Discuss models of Requirements Analysis. [7M]
b) What are various issues in data modeling? Explain. [7M]

OR

- 6 a) Describe the steps in creating Behavioral Models with a suitable example. [7M]
b) What are various Web Apps Requirements Models? Discuss. [7M]

UNIT-IV

- 7 a) What are alternative architectural designs? Explain its assessing methods. [7M]
b) What is software design and software design process? What is the various Design issues considered in software development process. [7M]

OR



- 8 a) What are the procedures for conducting component level design? Explain. [7M]
b) What are the main concerns of architectural design? Explain them. [7M]

UNIT-V

- 9 a) List and explain the golden rules of User interface development. [7M]
b) Write a short note on software quality assurance tasks, goals, Metrics and statistical SQA. [7M]

OR

- 10 Write down test strategies for conventional software, Object-oriented software and webApps systems. [14M]

