Code No: R2021053 **R20** SET - 1

II B. Tech I Semester Regular/Supplementary Examinations, January - 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
~~~~~~~~~~~~~~~~~~~~~~~~~

UNIT-I

1 Explain the incremental process model along with its advantages and disadvantage. [14M]

OR

2 a) What do you mean by team process model and personal process model? Differentiate them. [7M]

b) Explain the help of a neat diagram, the prototyping model for software development. [7M]

UNIT-II

3 What is Agility? Compare and contrast various Agile process models. [14M]

OR

4 Explain the ways and means for collecting the software requirements and how are they organized and represented? [14M]

UNIT-III

5 a) What is the use of code verification? How code verification is carried out? [7M]

b) How system modeling is achieved using UML? Explain with a suitable Example. [7M]

OR

6 a) What is system modeling? Explain the process of creating models and the factors that should be considered when building models. [7M]

b) Give an overview of various steps in requirements engineering process. [7M]

UNIT-IV

7 a) How a component is designed based on function? Explain. [7M]

b) Describe the steps in indentifying a good design. [7M]

OR

8 a) Discuss about Component- Based Development. In detail. [7M]

b) Write the steps in the component level design for WebApps. [7M]

UNIT-V

9 a) What is meant by SQA? Discuss in detail SQA activities. [7M]

b) Discuss about software reviews. Elaborate on its categories. [7M]

OR

10 a) Explain the activities of software quality assurance group to assist the software team in achieving high quality. [7M]

b) What are the types of software risks? How they affect software quality? [7M]
~~~~~~~~~~~~~~~~~~~~~~~~~

Code No: R2021053 **R20** SET - 2

II B. Tech I Semester Regular/Supplementary Examinations, January - 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
~~~~~~~~~~~~~~~~~~~~~~~~~

UNIT-I

1	a)	Define software engineering and present a generic view of Software Engineering.	[7M]
	b)	Lucidly present the core principles of software engineering	[7M]

OR

2	a)	What is a myth? Give a focus on various software myths regarding Management and Practitioner	[7M]
	b)	What are the advantages of iterative development? Compare iterative development with Incremental delivery approach	[7M]

UNIT-II

3	a)	Discuss about Extreme Programming (XP) in detail.	[7M]
	b)	Describe the steps to be followed in developing use cases.	[7M]

OR

4	a)	Give the features of the toolset used in Agile process.	[7M]
	b)	Explain about Eliciting Requirements. Why is it mandatory?	[7M]

UNIT-III

5	a)	Discuss about Requirements Modeling for WebApps.	[7M]
	b)	Explain about Scenario-Based Modeling. Give its role in requirements analysis.	[7M]

OR

6	a)	Explain the basic elements of a class-based model with suitable diagram.	[7M]
	b)	Give the measures to validate the requirements of software system.	[7M]

UNIT-IV

7	a)	How to translate the analysis model into the design model? Explain with an example scenario.	[7M]
	b)	Explain how to map data flow into a software architecture	[7M]

OR

8	a)	Write about architectural styles and patterns	[7M]
	b)	Describe the steps in the design of class- based components.	[7M]

UNIT-V

9	a)	Discuss about White box Testing in detail.	[7M]
	b)	What strategies need to be followed for testing object oriented software? Explain them.	[7M]

OR

10	a)	Briefly describe the three main types of software maintenance. Why is it sometimes difficult to distinguish between them?	[7M]
	b)	Elaborate the golden rules for user interface design	[7M]

|'''|'|'|''|'||'|||
~~~~~~~~~~~~~~~~~~~~~~~~~

Code No: R2021053 **R20** SET - 3

II B. Tech I Semester Regular/Supplementary Examinations, January - 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
~~~~~~~~~~~~~~~~~~~~~~~~~

UNIT-I

1	a)	"Software engineering is a layered technology". Justify	[7M]
	b)	Explain Challenges faced in Software engineering.	[7M]

OR

2	a)	What are WebApps? Give their features.	[7M]
	b)	Give an overview of unified process model.	[7M]

UNIT-II

3	a)	Describe different checks to be carried out during requirements validation process.	[7M]
	b)	Explain briefly about Requirements management.	[7M]

OR

4	a)	What are the three key elements of Agile methodology? Explain them.	[7M]
	b)	How does agility changes the Cost of development? Describe.	[7M]

UNIT-III

5	a)	Discuss about Requirements Modeling Strategies in detail.	[7M]
	b)	Explain the design of class-based components.	[7M]

OR

6	a)	What is scenario based modeling? Explain the process of creating models and the factors that should be considered when building models.	[7M]
	b)	Give an overview of various steps in creating a behavioral model.	[7M]

UNIT-IV

7		What are the outcomes of design process in software engineering? Give their formats.	[14M]

OR

8		How can we design data at component level? Focus on cohesion and coupling metrics.	[14M]

UNIT-V

9	a)	Explain the metrics for Analysis Model.	[7M]
	b)	Describe test strategies for Conventional Software.	[7M]

OR

10	a)	Discuss about Black box Testing in detail.	[7M]
	b)	Describe the strategies to be followed in testing WebApps.	[7M]

|'''|'|'|''|'||'|||
~~~~~~~~~~~~~~~~~~~~~~~~~

Code No: R2021053 **R20** SET - 4

II B. Tech I Semester Regular/Supplementary Examinations, January - 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
~~~~~~~~~~~~~~~~~~~~~~~~~

UNIT-I

1	a)	Explain about the evolution of software engineering methodology.	[7M]
	b)	Give the key features of software process models with examples.	[7M]

OR

2	a)	Define the terms: software, software engineering. Focus on the challenges faced in software engineering.	[7M]
	b)	Explain with neat diagram the prototyping model for software development.	[7M]

UNIT-II

3	a)	What are the goals of Requirement Engineering? What are the tasks performed in requirement engineering? Explain.	[7M]
	b)	Discuss the components of a Software Requirement Specification document.	[7M]

OR

4	a)	Discuss about Extreme Programming (XP) in detail.	[7M]
	b)	Explain about Agile Process in detail. Give its advantages.	[7M]

UNIT-III

5		What is behavioral modeling? What are the basic components of behavioral modeling? How does DFDs assist in requirements engineering process?	[14M]

OR

6	a)	Discuss about Requirements Modeling Strategies in detail.	[7M]
	b)	Explain the design of class based components.	[7M]

UNIT-IV

7		What are the three types of software architecture patterns? Illustrate each with suitable example.	[14M]

OR

8	a)	Explain about Designing Traditional Components in detail.	[7M]
	b)	Compare traditional development with component based development.	[7M]

UNIT-V

9		What are the reasons behind performing white box testing? What types of errors it can identify? Explain.	[14M]

OR

10	a)	What is meant by SQA? Discuss in detail SQA activities.	[7M]
	b)	How does quality assurance differ from software testing? Explain with a suitable example.	[7M]
~~~~~~~~~~~~~~~~~~~~~~~~~