

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM**  
**III B. Tech I Semester Regular/Supplementary Examinations, April/May-2025**  
**SOFTWARE ENGINEERING**  
 CSE(Cyber Security)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**  
 All Questions Carry Equal Marks

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		<b><u>UNIT-I</u></b>	
1.		Explain the different prescriptive process models in software engineering with suitable examples.	[14M]
		(OR)	
2.	a)	Describe the layered technology used in software engineering practice.	[7M]
	b)	Discuss the importance and types of specialized process models.	[7M]
		<b><u>UNIT-II</u></b>	
3.	a)	What is agility in software development? Compare traditional and agile methods.	[7M]
	b)	Explain the different phases in the requirements engineering process.	[7M]
		(OR)	
4.	a)	Discuss Extreme Programming (XP) in detail with its advantages and disadvantages.	[7M]
	b)	Explain use case modeling with a suitable example.	[7M]
		<b><u>UNIT-III</u></b>	
5.	a)	Explain the concept of class-based modeling with suitable UML diagrams.	[7M]
	b)	What are the different types of behavioral models used in requirements modeling?	[7M]
		(OR)	
6.	a)	Describe scenario-based modeling. How does it help in requirements analysis?	[7M]
	b)	Write short notes on: i) Flow-oriented modeling ii) Requirements modeling for WebApps	[7M]
		<b><u>UNIT-IV</u></b>	
7.	a)	Explain the various architectural styles with suitable diagrams.	[7M]
	b)	Describe the activities involved in component-level design.	[7M]
		(OR)	
8.	a)	What are design concepts? Explain their role in software design.	[7M]
	b)	Discuss the steps involved in designing class-based components.	[7M]
		<b><u>UNIT-V</u></b>	
9.	a)	Explain the interface design steps for a Web Application.	[7M]
	b)	Discuss the significance of Software Quality Assurance (SQA) and its key tasks.	[7M]
		(OR)	
10.	a)	Compare White-box and Black-box testing strategies. Explain with examples.	[7M]
	b)	What is basis path testing? Illustrate with a control flow graph.	[7M]

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