



USN

BCS755C

Seventh Semester B.E./B.Tech. Degree Examination, June/July 2026 Software Engineering

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks, L: Bloom's level, C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Define Software Engineering and explain practices involved in software engineering.	6	L2	CO1
	b.	Demonstrate spiral model with a neat diagram.	6	L2	CO1
	c.	Define process and explain generic process framework.	8	L2	CO1
OR					
Q.2	a.	Demonstrate V-model with a neat labeled diagram.	8	L2	CO1
	b.	List and explain software application domain.	8	L2	CO1
	c.	Explain unique nature of Web Apps.	4	L2	CO1
Module – 2					
Q.3	a.	Explain scenario based model with example.	10	L2	CO2
	b.	Explain key steps involved in establishing the fundamental groundwork for a successful Software Engineering project.	10	L2	CO2
OR					
Q.4	a.	Explain Negotiating Requirement and Validating Requirement in detail.	10	L2	CO2
	b.	Briefly explain Data Modeling concepts in detail.	10	L2	CO2
Module – 3					
Q.5	a.	Demonstrate Extreme programming process with neat diagram.	10	L2	CO3
	b.	What is Agility? Explain the principles of Agile Software development.	10	L2	CO3
OR					
Q.6	a.	Explain the principles that guide each framework activity in the software engineering process.	10	L2	CO3
	b.	Describe Software Engineering Knowledge and its core principles.	10	L2	CO3

Module – 4					
Q.7	a.	What is Software Design? Explain the context of software engineering with a neat diagram.	10	L2	CO4
	b.	Briefly explain the fundamental design concepts such as abstraction, modularity, architecture and pattern.	10	L2	CO4
OR					
Q.8	a.	Write a note on Architectural Styles and Patterns.	10	L2	CO4
	b.	Explain the process of designing class based components in software engineering. Also discuss key principles such as Encapsulation and Coupling.	10	L2	CO4
Module – 5					
Q.9	a.	Define Software Testing. List and describe the various types of software testing strategies.	10	L2	CO5
	b.	Write a note on white box testing and black box testing.	10	L2	CO5
OR					
Q.10	a.	What is Software Quality? List and explain the metrics used for software quality.	10	L2	CO5
	b.	Discuss the concept of Software Quality Assurance (SQA) in detail.	10	L2	CO5
