

Code: 20CS5502

**III B.Tech - I Semester - Regular Examinations - NOVEMBER 2024**

**SOFTWARE ENGINEERING  
(MINORS in COMPUTER SCIENCE & ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
<b>UNIT-I</b>					
1	a)	What is legacy software? Briefly summarize its impact in software engineering.	L2	CO2	6 M
	b)	Elaborate on the changing nature of software in detail. What are various myths about software?	L2	CO1	8 M
<b>OR</b>					
2	a)	Explain software development life cycle. Discuss various activities during SDLC.	L2	CO2	6 M
	b)	Explain Spiral model with a neat sketch. What can you say about the software that is being developed or maintained as you move outward along the spiral process flow? Explain its merits and demerits.	L2	CO2	8 M

<b>UNIT-II</b>					
3	a)	Explain how a software requirements document is structured. Describe five desirable characteristics of a good software requirement specification document.	L2	CO1 CO4	8 M
	b)	Differentiate between functional and non-functional requirements.	L3	CO4	6 M
<b>OR</b>					
4	a)	Discuss about principal requirements engineering activities and their relationships.	L2	CO1 CO4	7 M
	b)	What is the goal of requirements analysis phase? Justify why the requirements analysis phase is a difficult one.	L3	CO4	7 M
<b>UNIT-III</b>					
5	a)	What is a DFD? Describe the process involved in preparing the DFDs.	L2	CO4	7 M
	b)	Distinguish between coupling and cohesion? How do they effect software design?	L3	CO4	7 M
<b>OR</b>					
6	a)	List and compare different kinds of architecture styles and patterns.	L3	CO1 CO4	8 M
	b)	Consider a Case study of your choice show the architectural and component design.	L4	CO1 CO4	6 M

<b>UNIT-IV</b>					
7		Explain the various test strategies for conventional software.	L3	CO4	14 M
<b>OR</b>					
8	a)	What is black box testing? What is boundary value Analysis? Explain the technique specifying rules and its usage with the help of an example.	L4	CO4	8 M
	b)	What are the main objectives of Software verification and validation? Briefly explain different V and V techniques.	L2	CO1 CO4	6 M
<b>UNIT-V</b>					
9	a)	Explain various software quality standards and discuss how to assure them. Explain the factors that affect software quality.	L2	CO3	8 M
	b)	List the major risks in a software project. What are the major ways to abate the risk of cost and schedule overruns?	L2	CO3	6 M
<b>OR</b>					
10		Explain briefly about RMMM and RMMM plan of Risk Refinement.	L3	CO3	14 M