U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February 2025 Semester End Main Examinations

Programme: B.E. **Semester: IV**
Branch: Information Science and Engineering **Duration: 3 hrs.**
Course Code: 23IS4PCSEG **Max Marks: 100**
Course: Software Engineering

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

		UNIT - I	CO	PO	Marks
1	a)	With a suitable example explain the steps involved in a traditional software development approach where each phase must be completed before the next one begins?	CO1		10
	b)	Discuss the role of ethics in software engineering practices. How can software engineers uphold ethical standards in their work, particularly when faced with dilemmas such as balancing client demands, ensuring user privacy, and adhering to legal and regulatory requirements? Provide real-world examples to support your arguments.	CO1		10
		OR			
2	a)	Define software engineering process model? List out the various process model and explain incremental development model with example.	CO1		10
	b)	To help counter terrorism, many countries are planning or have developed computer systems that track large numbers of their citizens and their actions. Clearly this has privacy implications. Discuss the ethics of working on the development of this type of software system.	CO1		10
		UNIT - II			
3	a)	List and Explain how Agile principles improve software development processes and provide an example of how a specific Agile practice can enhance project outcome	CO2	PO1	10
	b)	Describe the Scrum process in software development, outlining its key components, and how it facilitates iterative and incremental delivery.	CO2	PO1	10
		OR			
4	a)	Discuss the role of ethics in software engineering practices. How can software engineers uphold ethical standards in their work, particularly when faced with dilemmas such as balancing client demands, ensuring user privacy, and adhering to legal and	CO1		10

			regulatory requirements? Provide real-world examples to support your arguments.			
		b)	Discuss the extreme programming release cycle with a diagram.	*CO2*	*PO1*	**10**
			UNIT - III			
	5	a)	Discuss the functional and non-functional requirements for the development of banking application	*CO1*		**10**
		b)	Discuss the spiral view of the requirements engineering process with a simple example	*CO1*		**10**
			OR			
	6	a)	Using your knowledge of how an ATM is used, develop a set of use cases that could serve as a basis for understanding the requirements for an ATM system.	*CO1*		**10**
		b)	Discuss the structure of software requirement document in detail.	*CO1*		**10**
			UNIT - IV			
	7	a)	Illustrate the factors affecting Architectural design decisions.	*CO3*	*PO2*	**10**
		b)	Discuss the client server pattern architecture with suitable example.	*CO3*	*PO2*	**10**
			OR			
	8	a)	Summarize (i) 4 + 1 view model of software architecture with suitable illustration. (ii) Pipe and filter architectural pattern	*CO3*	*PO2*	**10**
		b)	Discuss the compiler language processing system in detail.	*CO3*	*PO2*	**10**
			UNIT - V			
	9	a)	As a project manager of a company, what are the basic principles you must use to motivate the people in a production plant.	*CO1*		**10**
		b)	Summarize the risk management process you follow in your projects, including how you identify, assess, prioritize, and mitigate potential risks?	*CO1*		**10**
			(OR)			
	10	a)	Examine the risk management strategies that have been identified for the key risks and Risk indicators.	*CO1*		**10**
		b)	Examine the typical workflow for a project planning process.	*CO1*		**10**

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