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**BCS501** 

## Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Software Engineering and Project Management

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	С
Q.1	a.	Explain software process and software engineering practices.	10	L2	CO1
	b.	Explain the waterfall model and incremental model, with diagram.	10	L2	CO1
		OR			
Q.2	a.	Explain Boehm Spiral process model with a neat diagram. Mention its	10	L2	CO1
		advantages and disadvantages.			
	b.	Explain the five activities of a generic process framework for software	10	L2	CO1
		engineering.			
		Module – 2			
Q.3	a.	Explain the distinct tasks of requirement engineering.	10	L2	CO <sub>2</sub>
	b.	Illustrate the UML use case diagram for safe home system.	10	L2	CO <sub>2</sub>
		OR			
Q.4	a.	Explain Class-Responsibility-Collaborator(CRC) modeling and data	10	L2	CO <sub>2</sub>
		modeling with an example.			
	b.	Explain the elements of analysis model in requirement modeling.	10	L2	CO <sub>2</sub>
		Module – 3			
Q.5	a.	Explain the principles of agile process development.	10	L2	CO3
	b.	Explain the following:	10	L2	CO3
		i) Adaptive software development			
		ii) SCRUM			
		OR		1	
Q.6	a.	Explain the concepts of extremes programming with a neat diagram.	10	L2	CO <sub>3</sub>
	b.	Explain design modeling principles that guide the respective framework	10	L2	CO3
		activity.			
	1	Module – 4	. *		
Q.7	a.	Illustrate the project management life cycle with a neat diagram.	10	L2	CO4
	b.	Explain: i) Different ways of categorizing software projects	10	L2	CO4
		ii) Smart objectives			
		OR			
Q.8	a.	Explain the difference between traditional versus modern project	10	L3	CO4
		management practices along with the role of management.			
	b.	Explain software development life cycle (ISO 12207) with a neat diagram.	10	L2	CO4
		Module – 5			
Q.9	a.	Explain Quality Management System with principles of BS EN ISO-9001-	10	L2	COS
		2000.			
	b.	Explain the following:	10	L2	ÇO5
		i) McCall model ii) Garvin's Quality Dimensions.			
	1	OR	1	1	
Q.10	a.	Describe six generic functions allowed in automated estimation techniques	10	L3	CO5
		of software projects.			
	b.	Explain COCOMO II model.	10	L2	CO5
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