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EAST POINT COLLEGE OF ENGINEERING & TECHNOLOGY
An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi

USN | | | | | | | | | | |

24IS43

Fourth Semester B.E. Degree Examination, May 2026
SOFTWARE ENGINEERING

TIME:3 hrs. Max.Marks:100

Note: 1. Answer **any FIVE** full questions, choosing **ONE** question from **each MODULE.**
2. M: Marks, L: Bloom's level,C: Course outcomes.
3. Assume missing data suitably.

		Module-1	M	L	C
Q.1	a	Define Software Engineering. Explain the software crisis and need for Software Engineering.	6	L2	CO1
	b	Compare Waterfall, Incremental and Spiral process models.	8	L2	CO1
	c	Explain functional and non-functional requirements with examples.	6	L2	CO1
		OR			
Q.2	a	Explain software engineering ethics and professional development	6	L2	CO1
	b	Describe the requirements engineering process with neat diagram.	8	L3	CO1
	c	Explain requirements validation and management.	6	L3	CO1
		Module–2			
Q.3	a	What is Object Oriented Development? Explain Object Oriented themes.	6	L2	CO2
	b	Explain abstraction and modelling as a design technique.	8	L3	CO2
	c	Differentiate object and class concepts with suitable examples.	6	L2	CO2
		OR			
Q.4	a	Explain generalization and inheritance with UML notation.	6	L3	CO2
	b	Develop a sample class model for a Library Management System.	8	L4	CO2
	c	Explain navigation of class models and associations.	6	L2	CO2
		Module–3			
Q.5	a	Explain context models and interaction models	8	L2	CO3
	b	Describe behavioral models with suitable UML diagrams.	6	L3	CO3
	c	Explain model-driven engineering and its advantages.	6	L2	CO3
		OR			
Q.6	a	Explain design principles in software engineering.	6	L2	CO3
	b	Elaborate object-oriented design using UML with example.	8	L3	CO3
	c	Discuss open source software development and implementation issues.	6	L4	CO3
		Module–4			
Q.7	a	Differentiate development testing and release testing	6	L2	CO4
	b	Explain test-driven development (TDD) with advantages.	8	L3	CO4
	c	Describe software maintenance and evolution **processes**.	6	L3	CO4

		OR			
Q.8	**a**	Explain user testing methods.	**6**	**L2**	**CO4**
	b	Discuss legacy system management problems and solutions.	**8**	**L2**	**CO4**
	c	Explain test automation concepts.	**6**	**L2**	**CO4**
		Module–5			
Q.9	**a**	Explain software project scheduling techniques.	**6**	**L2**	**CO5**
	b	Describe estimation techniques used in software project planning.	**8**	**L2**	**CO5**
	c	Explain Software Quality and Quality management activities.	**6**	**L2**	**CO5**
		OR			
Q.10	**a**	Define software pricing and factors affecting it.	**6**	**L2**	**CO5**
	b	Explain software reviews and inspections.	**8**	**L2**	**CO5**
	c	Discuss software metrics and Software standards with examples.	**6**	**L2**	**CO5**

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