K. K. Wagh Institute of Engineering Education & Research, Nashik

(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:IV
Class:SY	Program:B.Tech
Branch Code:ADS/COM/CSD	Pattern:2023
Name of Course:Software Engineering	Course Code:2301213
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 2 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

		Marks	CO
Question No. 1			
1	Compare Waterfall, Incremental, and Evolutionary process models in terms of process flow and adaptability.	(6)	CO1
Question No. 2			
2	Make use of collaborative requirements gathering techniques to define user needs for a ride-sharing mobile application.	(6)	CO2
Question No. 3			
3.a)	Explain the Function Point (FP)–based estimation method with its key components.	(6)	CO3
	OR		
3.b)	Make use of problem-based estimation for a software solution where requirements are still evolving?	(6)	CO3
3.c)	Apply use-case-based estimation to estimate effort for an online food ordering application?	(5)	CO3
	OR		
3.d)	Demonstrate use of COCOMO model in empirical estimation.	(5)	CO3
3.e)	Utilize the decomposition technique to estimate the cost and effort required for developing any system.	(5)	CO3
	OR		
3.f)	Apply the concept of software scope to a real-world project and explain its feasibility.	(5)	CO3
Question No. 4			
4.a)	Make use of information hiding in the design of a secure banking system?	(6)	CO4
	OR		
4.b)	How would you apply software quality guidelines to improve the maintainability of a software application?	(6)	CO4

4.c)	Explain refinement and refactoring. Explain its applicability in software development.	(5)	CO4
	OR		
4.d)	Explain content design at the component level. Develop an a web application using content design.	(5)	CO4
4.e)	Develop any software application making use of software design concepts.	(5)	CO4
	OR		
4.f)	State Architectural design elements and build a food sharing application using it.	(5)	CO4
Question No. 5			
5.a)	Make use and explain top-down and bottom-up integration testing are performed for software application.	(6)	CO5
	OR		
5.b)	Identify and explain strategic issues that affect software testing.	(6)	CO4
5.c)	Explain use of validation testing. How it is applicable for software applications.	(5)	CO4
	OR		
5.d)	Explain how stubs and drivers are utilized in Unit Testing.	(5)	CO4
5.e)	Identify and explain benefits of Smoke Testing.	(5)	CO5
	OR		
5.f)	Explain Alpha test and how it is applied in any software application.	(5)	CO5

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