

CO1	K3	11b.	(OR) Discuss the purpose and benefits of using a version control system in software development. How does it facilitate collaboration among developers? Provide an example of a common version control system.
CO2	K3	12a.	Describe the role of a 'Test Plan' in the software quality assurance process.
CO2	K3	12b.	(OR) Explain the concept of 'Regression Testing.' Why is it important, and how should it be integrated into the software development lifecycle? Provide an example scenario where regression testing is critical.
CO3	K4	13a.	Analyze the trade-offs between a monolithic architecture and a micro-services architecture.
CO3	K4	13b.	(OR) Discuss the importance of designing for scalability in system architecture.
CO4	K4	14a.	Discuss the impact of inheritance on software design. Explain how inheritance can be used to promote code reuse and establish relationships between classes?
CO4	K4	14b.	(OR) Analyze the role of use case diagrams in the requirements gathering phase of software development. How do use case diagrams help in identifying system requirements and stakeholders?
CO5	K5	15a.	Evaluate the effectiveness of Agile project management methodologies compared to traditional Waterfall methodologies.
CO5	K5	15b.	(OR) Discuss the importance of stakeholder management in software project management. Evaluate how engaging stakeholders effectively can impact project outcomes.

Course Outcome	Bloom's K-level	Q. No.	SECTION - C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	16a.	Analyze the role and impact of the following stages in the System Life Cycle Model: Requirements Analysis, Design, Implementation, Testing, and Maintenance.
CO1	K3	16b.	(OR) Analyze the application and impact of different software cost estimation techniques, including Expert Judgement, Analogous Estimating, Parametric Estimating, and Bottom-Up Estimating.
CO2	K4	17a.	Evaluate the impact of different types of software engineering tools on the software development lifecycle.
CO2	K4	17b.	(OR) Evaluate the role and impact of a Work Breakdown Structure (WBS) in software project management. Discuss how creating a WBS contributes to effective project planning, execution, and control.
CO3	K4	18a.	Evaluate the role and impact of different architectural patterns in system design within software engineering.
CO3	K4	18b.	(OR) Elucidate the role and impact of different system design principles and patterns on the overall architecture and quality of a software system.
CO4	K5	19a.	Analyze the role and impact of UML (Unified Modeling Language) in the software development lifecycle.
CO4	K5	19b.	(OR) Discuss how different UML diagrams such as Component Diagrams, Deployment Diagrams, and Collaboration Diagrams can be used to address integration challenges?
CO5	K5	20a.	Discuss how methodologies such as Total Quality Management (TQM), Six Sigma, and Capability Maturity Model Integration (CMMI) contribute to improving software quality?
CO5	K5	20b.	(OR) Evaluate function testing and system testing. Explain how it will check the software working process?