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ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B.Tech / B. Arch (Full Time) - END SEMESTER EXAMINATIONS, NOV / DEC 2024

COMPUTER SCIENCE AND ENGINEERING  
III Semester  
**CS23301 – SOFTWARE ENGINEERING**  
(Regulation 2023)

Time: 3 hrs

Max.Marks: 100

CO1	Explain and compare various software process models, demonstrating knowledge of their uses.
CO2	Competence in planning and managing software projects using estimation and scheduling methods like COCOMO, CPM, and PERT.
CO3	Employ design thinking techniques to create innovative, user-focused solutions and prototypes.
CO4	Skill in writing clean code, conducting effective code reviews, and applying testing methods such as black-box and white-box testing.
CO5	Knowledge of DevOps principles and tools, and ability to implement DevOps practices in continuous integration and delivery.

**PART- A(10x2=20Marks)**  
(Answer all Questions)

Q.No.	Questions	Marks	CO
1	"Software is designed and built so that it can be reused in different programs." Substantiate with suitable examples.	2	1
2	Distinguish between process and methods.	2	1
3	What are the non-functional requirements of software?	2	2
4	What is meant by Information flow Continuity?	2	2
5	What are the various models produce by the software design process?	2	3
6	What is the work product of software design process and who does this?	2	3
7	Mention the quality parameters considered for effective modular design?	2	4
8	How does the terms "reuse of design" and "update of a design" vary as per technology changes and customer psychology?	2	4
9	Distinguish between verification and validation.	2	5
10	Give the roles of cyclomatic complexity value in software testing?	2	5

**PART- B(5x 13=65Marks)**

Q.No.	Questions	Marks	CO
11 (a)	"The software differs from hardware as it is more logical in nature and hence, the difference in characteristics." Discuss.	13	1
OR			
11 (b)	Explain in detail Boehm's spiral model for software life cycle and discuss various activities in each phase.	13	1