



K25U 0817

Reg. No. :

Name :

**IV Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, April 2025
(2019 to 2023 Admissions)**

**CORE COURSE IN COMPUTER SCIENCE
4B05CSC : Software Engineering**

Time : 3 Hours

Max. Marks : 40

**PART – A
(Short Answer)**

Answer **all** questions.

(6×1=6)

1. Define software engineering.
2. What is a software process model ?
3. What is the relevance of software documentation ?
4. What is modularity in software design ?
5. Define boundary value analysis.
6. What is system testing ?

**PART – B
(Short Essay)**

Answer **any 6** questions.

(6×2=12)

7. Differentiate between software and a program.
8. Explain the feasibility study in software engineering.
9. What are the different types of software requirements ?
10. Describe the importance of requirement validation.
11. Explain function-oriented design.

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12. Explain mutation testing.
13. What is alpha testing ?
14. Describe the purpose of equivalence class partitioning.

PART – C
(Essay)

Answer **any 4** questions.

(4×3=12)

15. Compare waterfall and incremental process models.
16. Explain the different steps of requirement analysis.
17. Discuss object-oriented design methodology.
18. Describe mutation testing in software engineering.
19. Explain the importance of validation testing.
20. What is cyclomatic complexity in testing ?

PART – D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Explain software process and product matrices.
 22. Discuss requirement elicitation and requirement validation.
 23. Explain integration testing and its techniques.
 24. Describe the advantages and disadvantages of different software life cycle models.
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