

B.Sc. DEGREE END SEMESTER (SAY) EXAMINATION - MAY 2026**SEMESTER 5 : COMPUTER APPLICATIONS****COURSE : 19U5CRCAP10 - SOFTWARE ENGINEERING AND ENVIRONMENTAL STUDIES***(For Supplementary (SAY) 2023 Admission)*

Time : Three Hours

Max. Marks: 75

PART A**Answer All (1 mark each)**

1. Define Unit testing.
2. Define common coupling.
3. List some of the factors to be considered during system modeling.
4. What is the need of software engineering?
5. What are the two types of software interfaces?
6. Define Validation.
7. What do you mean by functional requirements?
8. Differentiate afforestation and deforestation.
9. Define Modularity.
10. What are attributes?

(1 x 10 = 10)**PART B****Answer any 8 (2 marks each)**

11. Compare modular decomposability and modular composability.
12. What are the prototyping approaches in software process?
13. Differentiate entity and attributes.
14. Differentiate between testing and debugging.
15. How many types of software requirements are there? Specify them?
16. What is the need for cyclomatic complexity?
17. What are the benefits of horizontal partitioning?
18. What are the merits and demerits of evolutionary prototyping?
19. What do you mean by spiral model?
20. What are the benefits of forest resources?

(2 x 8 = 16)**PART C****Answer any 5 (5 marks each)**

21. Write short note on condition testing.
22. Explain the RAD model in detail.
23. What are mineral resources? Explain the use and exploitation of mineral resources.
24. Explain SRS in software engineering with example.
25. Explain in detail about repository model and its characteristics.
26. Explain the components of real-time executives with a neat diagram.
27. Distinguish between technical feasibility and economic feasibility.

(5 x 5 = 25)

PART D

Answer any 2 (12 marks each)

28. Explain with advantages and disadvantages

1. Spiral Model
2. V-Model
3. Agile Model

29. Discuss structured analysis and data dictionary.

30. What are the various testing strategies of software testing? Discuss briefly.

31. Explain architectural styles in software engineering.

(12 x 2 = 24)