Reg. No ....   Name **24U523**

B.Sc. DEGREE END SEMESTER EXAMINATION - OCTOBER 2024
SEMESTER 5 : COMPUTER APPLICATIONS
COURSE : **19U5CRCAP10 : SOFTWARE ENGINEERING AND ENVIRONMENTAL STUDIES**
(For Regular 2022 Admission and Supplementary 2021/2020/ 2019 Admissions)

Time : Three Hours   Max. Marks: 75

PART A
Answer All (1 mark each)

1. What are artificial resources?
2. List any two evolutionary process models.
3. What is software engineering?
4. Identify the two types of real time systems.
5. Define the design process.
6. What is the basic rule of DFD?
7. Define Requirement Engineering.
8. Who is software manager?
9. What is a cohesive module?
10. Define Cyclomatic complexity.

(1 x 10 = 10)

PART B
Answer any 8 (2 marks each)

11. Define Regression testing.
12. How requirements are classified? Explain with an example of each.
13. What is Transaction analysis in software engineering?
14. What are the rules of context diagram?
15. What are the various testing strategies for conventional software?
16. Define the software engineering paradigm.
17. What are the different types of natural resources?
18. What are the types of Call and Return Architecture?
19. Identify the different steps involved in requirement engineering process.
20. What are the merits of incremental model?

(2 x 8 = 16)

PART C
Answer any 5 (5 marks each)

21. Explain three types of abstraction used in software design.
22. Explain data dictionary with the help of example in software engineering.
23. What are the guidelines to be followed in software design?
24. Differentiate between white box testing and black box testing.

25. Elaborate on renewable and nonrenewable energy resources and other alternate energy sources.

26. Explain the fundamental activities of the software process.

27. Explain the requirement engineering process.

(5 x 5 = 25)

PART D
Answer any 2 (12 marks each)

28. Explain with advantages and disadvantages

    1. Waterfall Model
    2. Iterative Model
    3. Prototyping Model

29. Explain different requirement elicitation techniques with its merits and demerits.

30. Explain architectural styles in software engineeing.

31. Explain black box testing methods and its advantages and disadvantages.

(12 x 2 = 24)