Reg. No ..... Name **23U523**

B. Sc. DEGREE END SEMESTER EXAMINATION : NOVEMBER 2023

SEMESTER 5 : COMPUTER APPLICATIONS

COURSE : **19U5CRCAP10 : SOFTWARE ENGINEERING AND ENVIRONMENTAL STUDIES**

(For Regular 2021 Admission and Supplementary 2020 / 2019 Admissions)

Time : Three Hours Max. Marks: 75

PART A

Answer All (1 mark each)

1. Define coupling.
2. Which are the stages involved in the waterfall model?
3. Define requirement engineering.
4. Define alpha testing.
5. Define validation.
6. What is the need of software engineering?
7. Define software prototyping.
8. Which are the criteria used to measure the functional independence of modules?
9. What do you mean by carbon footprint?
10. Define the design process.

(1 x 10 = 10)

PART B

Answer any 8 (2 marks each)

11. What is the use of test management testing tools?
12. Define behavioral testing.
13. What do you mean by spiral model?
14. What are the requirement engineering process functions?
15. Distinguish between data design and architectural design.
16. What are the merits and demerits of evolutionary prototyping?
17. What is the difference between horizontal partitioning and vertical partitioning?
18. What are the advantages of evolutionary prototyping?
19. Explain the goals of human rights education.
20. Explain the main purpose of DFD.

(2 x 8 = 16)

PART C

Answer any 5 (5 marks each)

21. What are the benefits of white box testing?
22. Elaborate on the user interface design process.
23. Explain functional modeling methods.
24. Explain the types of software products.
25. Discuss the fundamental software design concepts.
26. Explain the requirement engineering process.
27. What are the effects of modern agriculture practices on environment?

(5 x 5 = 25)

PART D

Answer any 2 (12 marks each)

28. Discuss the differences between black box and white box testing models. Discuss how these testing models may be used together to test a program schedule.

29. Explain with advantages and disadvantages

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

30. Explain the prototyping approaches in the software process.

31. Explain in detail about the fundamental software design concepts.

(12 x 2 = 24)