

END SEMESTER EXAMINATION - MARCH 2026**SEMESTER 4 : INTEGRATED M.Sc. PROGRAMME COMPUTER SCIENCE-DATA SCIENCE****COURSE : 21UP4CRMCP12 : SOFTWARE ENGINEERING***(For Regular 2024 Admission and Improvement /Supplementary 2023/ 2022/ 2021 Admissions)*

Time : Three Hours

Max. Weightage: 30

PART A**Answer any 8 Questions**

1. Name the different types of code review methods.
2. Define context level diagram.
3. Define the term exception generalization.
4. State any two drawbacks of LOC size estimate.
5. State how can you evaluate a software design to be good, with respect to cohesion and coupling.
6. List any two drawbacks of command-based user interface.
7. State the reason behind saying that it is not possible to guarantee that a program or software is error free.
8. List any two strategies for risk containment.
9. List any two drawbacks of the FP metric.
10. State any two drawbacks of exploratory style of software development.

(1 x 8 = 8 Weight)**PART B****Answer any 6 Questions**

11. Discuss briefly about the engineering approach towards creating a software.
12. Discuss the role of data dictionary in software design.
13. Discuss the need of designing test cases.
14. Explain how the principles of abstraction and decomposition are used to arrive at a good design.
15. List the various characteristics of software evolution.
16. Discuss the major classification of risks in a software project.
17. Differentiate between menu-based and direct manipulation interfaces.
18. Define unit testing. Explain how unit testing is carried out.

(2 x 6 = 12 Weight)**PART C****Answer any 2 Questions**

19. The empirical estimation techniques have, over the years, been formalised to a certain extent. List and explain the basic techniques involved in empirical estimation.
20. Discuss the statement coverage and branch coverage strategies in testing.
21. Discuss the evolution of software engineering from an art form to an engineering discipline.
22. Prepare detailed note on the classification of cohesiveness.

(5 x 2 = 10 Weight)