2023/TDC(CBCS)/EVEN/SEM/
CSCHCC-602T/328

TDC (CBCS) Even Semester Exam., 2023

COMPUTER SCIENCE

(Honours)

(6th Semester)

Course No. : CSCHCC-602T

(Software Engineering)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any *ten* of the following questions : 2×10=20

1. Why is prototyping used in software engineering?

2. Write down the characteristics of a good software.

3. What is software process framework?

4. Define SRS. Write down the characteristics of good SRS.

5. Write the uses of Gantt chart.

6. What are estimation techniques in project management?

7. Define risk refinement.

8. What do you mean by software review?

9. Write the importance of quality management in a software.

10. Why do we need DFD in system design?

11. How do you map data flow into a software architecture?

12. What, according to you, are the characteristics of good software design?

13. Fill in the blanks with correct word :

    (a) In software testing, 'Are we building the right product?' means _____.

    (b) _____ testing is used to check the code.

14. Write the features of basic path testing.

15. What are test cases? How are they important?

SECTION—B

Answer any *five* of the following questions : 10×5=50

16. Explain the following models with advantages and disadvantages : 5+5=10

    (a) Spiral model

    (b) Classical waterfall model

17. (a) Discuss the characteristics of software engineering.

    (b) Write a short note on 'changing nature of software'. 5+5=10

18. (a) Explain software project planning process.

    (b) Explain project scheduling. What are the resources required for the development of project? 5+5=10

19. What do you mean by software requirement analysis? Discuss the different steps of software requirement analysis. 2+8=10

20. What is software quality assurance? How does it differ from software quality control? Explain in detail about software quality architecture. 2+3+5=10

21. Write the principle of risk management. Also discuss the different steps in risk management process. 2+8=10

22. Explain the concept of data design at—

(a) architectural level;

(b) component level. 5+5=10

23. What are cohesion and coupling? Discuss the different types of cohesion and coupling. 1+1+4+4=10

24. Discuss the different types of software testing strategies.

25. *(a)* Differentiate among error, failure and faults. 3

(b) Define the following : 2+2+3=7

(i) Automation testing

(ii) Verification

(iii) Software reliability

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