2023/TDC (CBCS)/EVEN/SEM/ CACCC–602T/070

TDC (CBCS) Even Semester Exam., 2023

COMPUTER APPLICATIONS

(6th Semester)

Course No. : CACCC–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 do we need software engineering?

2. List the components of software.

3. What are the characteristics of software?

4. Write down the disadvantages of waterfall model.

J23/805 (Turn Over)

(2)

5. What is the software equation? Explain its concept.

6. Why is spiral model known as meta model?

7. What is prototyping model?

8. How is prototyping model better than waterfall model?

9. What is SRS?

10. What is data dictionary?

11. Why is design important?

12. Why is structured analysis important?

13. What do you mean by requirement analysis?

14. Why is testing important?

15. What is system testing?

SECTION—B

Answer any *five* of the following questions :

10×5=50

16. Explain the spiral model with proper diagram.

(3)

17. Explain the advantages and disadvantages of waterfall model with proper diagram.

18. Draw E-R diagram of a college management system.

19. (a) Explain COCOMO model.   5

    (b) Suppose a project was estimated to be 400 KLOC. Calculate the effort and development time for each of the three (organic, semidetached and embedded) models.   5

20. Explain the following requirement elicitation techniques :   3+3+4=10

    (a) Interviews

    (b) Brainstorming

    (c) FAST

21. Explain in detail software quality management.

22. What do you mean by structured analysis? Explain in detail.

23. Write technical notes on the following :   3+3+4=10

    (a) Bottom-up design

    (b) Top-down design

    (c) Hybrid design

24. Write short notes on the following : 2½×4=10

    (a) Black box testing

    (b) White box testing

    (c) System testing

    (d) Integration testing

25. What are the objectives and principles of testing? Explain the working of validation testing. 6+4=10

★ ★ ★