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Fifth Semester B.C.A. Degree Examination, March/April 2021

(CBCS Scheme)

Computer Science

Paper VIII – SOFTWARE ENGINEERING

Time : 3 Hours] *[Max. Marks : 100*

Instructions to Candidates : Answer all Sections.

SECTION – A

Answer any **TEN** questions. Each question carries **2** marks : **(10 × 2 = 20)**

1. What are the two types of software products? Give example.
2. Define system.
3. What is the difference between Software engineering and System engineering?
4. Mention two advantage of Prototype model.
5. Define Cohesion and Coupling.
6. Define object and class.
7. What are the characteristics of GUI?
8. Define fault avoidance and fault tolerance.
9. Difference between verification and validation.
10. Define risk.
11. Define reliability.
12. Mention the types of software maintenance.

SECTION – B

Answer any **FIVE** questions. Each question carries **5** marks : **(5 × 5 = 25)**

13. Explain waterfall model with its advantages and disadvantages.
14. What are volatile requirements? Explain the classification of volatile requirements.

15. Explain the different phases of System Design process with diagram.

16. Write short notes on user Interface Design.

17. Explain Reliability Growth Modeling.

18. Differentiate between Black box and White box testing.

19. Describe different requirement validation check.

20. Explain Quality Control.

SECTION – C

Answer any **THREE** questions. **(3 × 15 = 45)**

21. (a) Explain Requirement Elicitation and analysis process of requirement engineering with diagram. **(8)**

(b) Explain IEEE structure of SRS document. **(7)**

22. (a) Explain design principles in detail. **(7)**

(b) Explain any two prototyping with advantage and disadvantage. **(8)**

23. (a) Explain Function-Oriented Design. **(8)**

(b) Explain different styles of user system Interaction. **(7)**

24. (a) Explain two approaches to software fault tolerance. **(7)**

(b) Explain Software Reuse. **(8)**

25. (a) Describe clean room software development process. **(7)**

(b) Explain different types of software maintenance. **(8)**

SECTION – D

Answer any **ONE** question : **(1 × 10 = 10)**

26. Explain different types of Cohesion with example. **(10)**

27. Explain COCOMO model in details. **(10)**

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