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(Pages : 2)

Name.....

Reg. No.....

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Computer Science

BCS 5B 10—PRINCIPLES OF SOFTWARE ENGINEERING

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answer Type Questions)*Answer at least **eight** questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. What is software process model ?
2. List out various fundamental activities in software process.
3. Briefly explain various phases of incremental process model.
4. Briefly explain various requirement modeling strategies in requirement engineering.
5. What is requirement validation process in requirement engineering ?
6. What is UML ? Explain its features.
7. What are the elements in state chart diagrams ?
8. What do you mean by modularization ?
9. Briefly explain various strategic approach in software testing.
10. What is the need of software maintenance ?
11. Write short note on software re-engineering.
12. Write short note on software maintenance.

(8 × 3 = 24 marks)

Section B (Short Essay Type Questions)*Answer at least **five** questions.**Each question carries 5 marks.**All questions can be attended.**Overall Ceiling 25.*

13. Explain in detail various phases in SDLC.
14. Differentiate waterfalls model and spiral model.

Turn over

15. What is requirement elicitation and analysis in requirement engineering process ?
16. Compare and contrast between behavioral and structural diagrams in UML.
17. Explain various object-oriented concepts that are needed for conceptual modeling in UML.
18. Briefly explain structured coding techniques in software engineering.
19. Describe in detail concurrency mechanism in modern programming language.

(5 × 5 = 25 marks)

Section C (Essay Type Questions)

*Answer any **one** question.*

The question carries 11 marks.

20. What is Agile Process Model in software development ? Explain the various Agile Process Models in detail.
21. Explain in detail :
 - a) Types of software testing.
 - b) Testing and debugging.

(1 × 11 = 11 marks)