ST. CLARET COLLEGE LIBRARY Bengaluru-13 AUTONOMOUS

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St. Claret College

Autonomous, Bengaluru

23

UG END SEMESTER EXAMINATION-MAY 2026
BCA- IV SEMESTER
CA 4325: SOFTWARE ENGINEERING

TIME: 3 hours. **MAX. MARKS: 80**

This paper contains TWO printed pages and FOUR parts

Instructions:
1. **Verify and ensure that the question paper is completely printed.**
2. **Any discrepancies or questions about the exam paper must be reported to the COE within 1 hour after the examination.**
3. **Students must check the course title and course code before answering the questions.**

PART-A

Answer ALL questions. Each answer carries ONE mark. **[1 x 10 = 10]**

1. Scrum is an example of:
   a) Waterfall model b) Agile method c) Spiral model d) V-model
2. Agile development emphasizes:
   a) Heavy documentation b) Rigid planning
   c) Flexibility and customer collaboration d) No testing
3. Agile toolsets are used to:
   a) Replace developers b) Support collaboration, tracking, and automation
   c) Eliminate coding d) Only design interfaces
4. Requirements elicitation involves:
   a) Coding the software b) Deployment
   c) Testing the system d) Gathering requirements from stakeholder
5. Reactive risk strategy means:
   a) Planning risks in advance b) Ignoring risks
   c) Responding to risks after they occur d) Eliminating all risks
6. Agile planning is characterised by:
   a) Fixed long-term plans b) No planning
   c) Iterative and flexible planning d) Only documentation
7. Software architecture refers to:
   a) Coding style b) Overall structure of the system
   c) Testing process d) User interface design only
8. A class diagram is used to represent:
   a) Static structure of a system b) Flow of data
   c) Sequence of execution d) Network topology

9. A formal technical review is conducted to:
   a) Write code
   b) Detect defects early
   c) Deploy software
   d) Manage users
10. Re-engineering in software engineering refers to:
   a) Modifying existing software to improve it
   b) Creating new software from scratch
   c) Deleting old software
   d) Testing only

PART-B

Answer any FIVE questions. Each answer carries TWO marks. **[2 x 5= 10]**

11. Define process framework in software engineering.
12. What is meant by the evolving role of software?
13. Define risk identification in software engineering.
14. What is project scheduling?
15. Define software metrics?
16. Describe SSQA.
17. Define software maintenance.

PART-C

Answer any FOUR questions. Each answer carries FIVE marks. **[4 x 5 =20]**

18. Explain the life cycle of Extreme programming.
19. Describe the Software Requirements Specification (SRS) document and its importance.
20. Explain various software estimation techniques used in project planning.
21. Explain the software design process and design quality in detail.
22. Discuss testing strategies, including black-box testing and white-box testing.
23. Explain different release strategies in software engineering and their importance.

PART-D

Answer any FOUR questions. Each answer carries TEN marks. **[4x10 =40]**

24. Describe the waterfall model and incremental process models with examples.
25. a. Explain the steps of requirements engineering process. [5]
    b. Write a short note on risk projection. [5]
26. a. Explain software architecture and its types. [5]
    b. Explain the art of debugging and its importance in software development. [5]
27. Explain the purpose and usage of UML diagrams: class, sequence, collaboration, use case, and component diagrams.
28. a. Describe software reviews, including formal technical reviews and their importance. [5]
    b. Explain software quality concepts and the role of Software Quality Assurance (SQA) in ensuring quality. [5]
29. a. Describe re-engineering and the role of ISO standards in ensuring software quality. [5]
    b. Write a short note on RMMM. [5]