



ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

NAAC A GRADE • AFFILIATED TO BANGALORE UNIVERSITY • AICTE APPROVED • 2(F) & 12 (B) RECOGNITION OF UGC • ISO 9001:2015 CERTIFIED
Electronics City P.O., Bengaluru - 560 100, Karnataka, INDIA ☎ (+91) 8088140679 ✉ pro@sfscollege.in 🌐 www.sfscollege.in

END SEMESTER EXAMINATION – APRIL/MAY 2026

COMPUTER SCIENCE – IV SEMESTER BCA

25BCA45 – SOFTWARE ENGINEERING

Time: 3 Hours

Max. Marks: 80

Instruction: Answer should be written completely in English.

SECTION - A

Answer any **FIVE** questions. Each question carries **TWO** marks.

(5X2=10)

1. Define software engineering.
2. Differentiate between functional and non-functional requirements.
3. Define Software Risk.
4. What are the steps involved in the software design process?
5. What is a class diagram used for representing a software system?
6. What is Release Planning?
7. List the activities involved in Software Quality Assurance.

SECTION - B

Answer any **SIX** questions. Each question carries **FIVE** marks.

(6X5=30)

8. List and explain layers of technology used in software engineering.
9. Define the Agile Software Development approach and state its characteristics.
10. Analyse the characteristics of plan-driven development in software projects and explain its advantages.
11. Demonstrate how project scheduling is carried out in software project management.
12. Apply the design model and explain its components while designing a software application.
13. Define GUI. Explain the importance of good GUI in software.
14. Demonstrate the steps of a Formal Technical Review on a module to detect defects.
15. Explain Software Reliability and discuss the factors affecting reliability.

SECTION - C

Answer any **FIVE** questions. Each question carries **EIGHT** marks.

(5X8=40)

16. List and explain the phases of the Waterfall Model.
17. Describe in detail the Spiral Model with a neat diagram.
18. Explain the RMMM Plan with suitable examples.
19. Evaluate the importance of the SRS document in software engineering.
20. Differentiate the black-box and white-box testing. Explain the importance of Testing stage in software development.
21. Apply metrics to evaluate the analysis model and design model.
22. Considering a software as an example describe the Release Management Process in detail.

