

**D 130097****(Pages : 2)****Name.....****Reg. No.....****FIFTH SEMESTER CBCSS-UG DEGREE EXAMINATION  
NOVEMBER 2025****(2019 Syllabus)****BCA****BCA 5B 10—PRINCIPLES OF SOFTWARE ENGINEERING****Time : Two Hours****Maximum : 60 Marks****Section A - Short Answer Type Questions***All questions can be answered.**Each correct answer carries a maximum of 2 marks.**(Ceiling 20 Marks)*

1. Define the waterfall model in software development.
2. What are use case diagrams used for in UML?
3. Explain the concept of modularity in software design.
4. What is reverse engineering in software maintenance?
5. List two modern programming language features related to concurrency.
6. Describe the agile unified process.
7. What is the purpose of requirements validation?
8. Name three types of UML diagrams.
9. What is the primary goal of software reengineering?
10. Differentiate between class diagrams and component diagrams.
11. What is exception handling in programming?
12. Explain the spiral model in the SDLC.

**(Ceiling 20 marks)****Section B - Paragraph/ Problem Type Questions***All questions can be answered.**Each question carries 5 marks.**(Ceiling 30 Marks)*

13. Discuss the advantages and disadvantages of the incremental process model.
14. Explain the role of separation of concerns in object-oriented design.

**Turn over**

15. Describe the process of eliciting requirements in requirements engineering.
16. Discuss the strategic approaches to testing object-oriented software.
17. Explain how agile methodologies differ from traditional SDLC models.
18. Explain the importance of documentation guidelines in coding standards.
19. Discuss the economic considerations involved in software reengineering.

(Ceiling 30 marks)

### **Section C - Essay Type Questions**

*Answer any **one** of the following questions.  
The question carries 10 marks.*

20. Elaborate on the different agile process models and their applications.
21. Describe the software process improvement frameworks and their significance in modern software engineering.

(1 × 10 = 10 marks)