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Name..... Reg. No.....

FIFTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION NOVEMBER 2024

B.C.A.

BCA 5B 10-PRINCIPLES OF SOFTWARE ENGINEERING

(2019 Admission onwards)

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. What is the main difference between prescriptive and generic process models ?

2. Define the term 'Modularity" in the context of software engineering.

3. What is software quality dilemma?

4. Name two agile modelling practices.

5. What are design classes in object-oriented design?

6. Explain the term 'Refactoring' in software design.

7. What is data abstraction in design models ?

8. Describe the role of deployment diagrams in UML.

9. What is the purpose of exception handling in programming languages ?

10. Identify one key aspect of software maintenance.

11. What does DSDM stand for in agile process models?

12. Explain the concept of functional independence.

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Section B (Paragraph/ Problem Type Questions)

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All questions can be answered. Each question carries 5 marks. (Ceiling 30 Marks)

- 13. Illustrate the differences between Scrum and Extreme Programming.
- 14. Describe the process and importance of validating requirements.
- 15. Explain how information hiding contributes to software maintainability.
- 16. Discuss the role of architecture in the design process.
- 17. Discuss the impact of type checking on software reliability.
- 18. Explain the concept of software supportability and its importance.
- 19. Describe the strategies used in system testing.

Section C (Essay Type Questions)

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

- 20. Elaborate on the software development life cycle and its phases.
- 21. Discuss the methodologies and benefits of business process re-engineering.

 $(1 \times 10 = 10 \text{ marks})$