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BCS-051

**BACHELOR OF COMPUTER
APPLICATIONS (BCA) (REVISED)**

Term-End Examination

June, 2026

**BCS-051 : INTRODUCTION TO SOFTWARE
ENGINEERING**

Time : 3 Hours

Maximum Marks : 100

Weightage : 75%

Note : Question No. 1 is compulsory and carries

*40 marks. Attempt any **three** questions*

from the rest.

1. (a) Develop SRS for online examination system for a university. Use IEEE format for SRS. Make necessary assumptions. 20
- (b) Draw ERD for online shopping system. Make necessary assumptions. 10
- (c) What is coupling ? How is it related to cohesion ? Explain. 5
- (d) Explain class diagram with the help of an example. 5
2. (a) What is a DFD ? What are the components of DFD ? Draw first two levels of DFA for online examination system. Make necessary assumptions. 10

- (b) What is Software Testing ? List the scope of Software Testing. Also, explain principles of Software Testing. 10
3. (a) Explain spiral model for software development. Also, describe the kind of system which should be developed using the model. List limitations of this model. 10
- (b) Explain software metrics in detail. 10
4. (a) Draw PERT chart/diagram for online examination system. Make necessary assumptions. 10
- (b) What is software quality assurance ? Explain the terms Error, Fault, Failure. What is cost of quality ? 10

5. Write short notes on the following : 4×5=20

- (a) Integration Testing
- (b) Object Oriented Design
- (c) Software Maintenance
- (d) Designing Test Cases

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