BCS–051

BACHELOR OF COMPUTER APPLICATIONS (BCA) (REVISED)

Term-End Examination

December, 2024

BCS-051 : INTRODUCTION TO SOFTWARE ENGINEERING

Time : 3 Hours   *Maximum Marks : 100*

Note : *Question No. **1** is compulsory and carries **40** marks. Attempt any **three** questions from the rest.*

1. (a) Explain spiral model for software development. Explain the types of software systems developed using this model.   10

   (b) What is PERT chart ? Explain the creation process of PERT chart, with suitable example.   10

(c) Explain the terms coupling and cohesion, with the help of suitable example for each. Briefly discuss the impact of coupling and cohesion, on software development.   10

(d) Draw the first two levels of DFDs for an "Online Student Registration System". Make necessary assumptions required.   10

2. (a) What is a data dictionary ? Explain the contents of data dictionary with the help of an example.   10

(b) What is module testing ? How is it different from integration testing ? Give suitable test case example for both types of testing.   10

3. (a) Develop the SRS for an "Online Student Registration System". Make necessary assumptions. Follow IEEE SRS format. Discuss the characteristics of good SRS. 15

(b) Discuss the application of logic objects, with the help of an example.   5

4. (a) Define the term 'Software Quality'. Explain the McCall's software quality factors.   10

   (b) What is debugging ? Explain any *four* debugging strategies.   10

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

   (a) Capability Maturity Models (CMM)

   (b) Software Metrics

   (c) Entity Relationship Diagram

   (d) Class Diagram

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