

No. of Printed Pages : 4

**BCS-051**

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

**Term-End Examination**

**June, 2025**

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

*Time : 3 Hours*

*Maximum Marks : 100*

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

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1. (a) Compare Waterfall model and Spiral model for software development.

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**P. T. O.**

Explain the situation, in which the Spiral model for software development should be preferred over Waterfall model. 10

- (b) What is GANTT chart ? Compare the utility of GANTT and PERT charts. Draw GANTT chart for the development of "Online Railway Reservation System". 10
- (c) Discuss IEEE SRS format and use it to develop the SRS for "Online Railway Reservation System". Make necessary assumptions. 15
- (d) What are static objects ? Explain with the help of an suitable example. 5

2. (a) Briefly discuss the various notations used to draw usecase diagram. Draw a usecase diagram for “Online Railway Reservation System”. 10
- (b) Compare Black Box Testing and White Box Testing. Give suitable example for each. 10
3. (a) Briefly discuss the various notations of DFD. Draw first two levels of DFDs for an “Online Examination System”. Make necessary assumptions. 10
- (b) What is the need of project planning ? Discuss any *four* types of project plans.

10

4. (a) What is the need of software maintenance ? Explain different categories of software maintenance. 10
- (b) What is a test case ? Explain test case for functional testing with the help of an example. 10
5. Briefly discuss the following with suitable example for each : 4×5=20
- (a) Acceptance testing
  - (b) Alpha and Beta testing
  - (c) Module testing
  - (d) Integration testing
  - (e) Software Quality Assurance activities

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