



Reg. No.



BCACACN 503

**Fifth Semester B.C.A. Degree Examination, Dec. 2023/Jan. 2024
(NEP 2020) (2023-2024 Batch Onwards)
SOFTWARE ENGINEERING
(DSCC)**

Time : 2 Hours

Max. Marks : 60

Note : Answer **any six** questions from Part – A and **one full** question from **each** Unit in Part – B.

PART – A

1. a) Define Software Engineering. $(6 \times 2 = 12)$
- b) Give any two advantages of Incremental Development Process.
- c) Define the term stakeholder. Mention the different categories of stakeholders.
- d) Differentiate Validity checks and Consistency checks.
- e) Name the four elements of design patterns.
- f) What is architectural design ?
- g) What is Integration testing ?
- h) Describe Junit.

PART – B

Unit – I

2. a) Explain waterfall model with a neat diagram.
 b) Explain four phases of requirement Engineering Process. $(6+6)$
3. a) Write a note on professional and ethical responsibilities of Software Engineer.
 b) Explain different attributes of good software. $(6+6)$



Unit – II

4. a) Explain the general process model of the elicitation and analysis process with the diagram.
- b) Explain the dataflow diagram of order processing. **(6+6)**
5. a) Write a note on :
 - i) State-machine model
 - ii) Object model
- b) Explain the components of a CASE tool for structured method support with a diagram. **(6+6)**

Unit – III

6. a) What is shared repository model ? Write the advantages and disadvantages.
- b) Explain architectural design with an example. **(6+6)**
7. a) Explain client-server model with an example diagram.
- b) List and explain four essential elements of design patterns. **(6+6)**

Unit – IV

8. a) Explain V model (planning Verification and Validation) with diagram.
- b) Explain the various approaches involved in test case design. **(6+6)**
9. a) What are the different components that are tested in unit testing ?
- b) Explain steps involved in bottom-up integration testing.
- c) Explain structural testing. **(4+4+4)**