BCACACN 503

V Semester B.C.A. Degree Examination, December 2024/January 2025
(NEP-2020) (2023 – 2024 Batch onwards)
SOFTWARE ENGINEERING

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

(6×2=12)

1. a) Define software engineering.

   b) What is software process model ?

   c) Give any two attributes of good software.

   d) Define the term requirement elicitation and analysis.

   e) Differentiate validity checks and consistency checks.

   f) Name the two main strategies while decomposing a sub-system into modules.

   g) What is object identification ?

   h) What is black box testing and white box testing ?

PART – B

Unit – I

2. a) What is software ? Explain two types of software products.

   b) Explain waterfall model with a neat diagram.

   (6+6)

3. a) Explain key challenges facing software engineering.

   b) Write a note on professional and ethical responsibilities.

   (6+6)

Unit – II

4. a) Briefly explain the concept of requirement review.

   b) Briefly explain the components of a CASE tool for structured method support with a diagram. **(6+6)**

5. a) List and explain requirement validation techniques.

   b) Explain the context of an ATM system with the diagram. **(6+6)**

Unit – III

6. a) Write the advantages and disadvantages of a shared repository model.

   b) Explain layered model with a diagram. **(6+6)**

7. a) Write a note on object interface specification.

   b) Write a note on design patterns. **(6+6)**

Unit – IV

8. a) Write the guidelines of interface testing.

   b) What is system testing ? Explain two distinct phases of system testing. **(6+6)**

9. a) Explain the top-down and bottom-up integration testing.

   b) Explain equivalence partitioning. **(6+6)**

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