

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE) (Sem.-5)
SOFTWARE ENGINEERING

Subject Code : BTCS-503-18

M.Code : 78322

Date of Examination : 27-11-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a. Define CBSE.
- b. What is a Generic Process Model?
- c. What do you mean by DFD? Illustrate.
- d. What is feasibility study? What are its various types?
- e. Define Software Engineering as per IEEE standard.
- f. Which is the best software development life cycle? Illustrate.
- g. What is six sigma techniques? Illustrate.
- h. Explain the concept software maintenance with the help of suitable example.
- i. What are software reliability metrics?
- j. Differentiate between cohesion and coupling.

SECTION - B

2. Write various Principles that Guide Practice. Explain all principles of any one module of Software Development Life Cycle.
3. Compare and contrast benefits of validation and verification in a project.
4. Explain briefly object modeling using UML. Explain with the help of suitable examples.
5. Compare and contrast functional and non-functional requirements.
6. Differentiate alpha testing from beta testing and discuss in detail about phases in which alpha and beta testing is done and how it is related to milestone and deliverable?

SECTION - C

7. **Write a short note on :**
 - a. SEICMMI
 - b. ISO
8.
 - a. Give various software reliability metrics.
 - b. Differentiate between white box and black box testing.
9. **Explain with the help of suitable examples and use suitable assumption if any :**
 - a. GANTT Chart
 - b. PERT Chart

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.