Roll No.

Total No. of Pages: 02

Total No. of Questions: 09

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

Subject Code: BTCS503-18

M.Code: 78322

Date of Examination: 17-06-2023

Time: 3 Hrs. Max. Marks: 60

## **INSTRUCTIONS TO CANDIDATES:**

- 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) What are software components?
- b) What do you mean by requirement gathering?
- c) Define software engineering as defined in IEEE 610.12.1990 standard.
- d) Which SDLC model is best? Explain.
- e) What is Software prototyping and POC?
- f) What are software reliability metrics? Explain.
- g) What is SGL environment?
- h) Differentiate between white-box and black-box testing.
- i) Explain in detail about SEI CMMI.
- j) What is Domain Analysis in context of software reuse?

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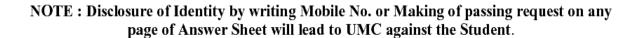
### SECTION-B

- 2. Describe the Software Development process in brief.
- 3. Explain the concept of modularization.
- 4. Write a detailed note on Rayleigh-Norden results.
- 5. How test coverage is helpful in measuring the effectiveness of the testing?
- 6. What do you understand by the term Software Development Life Cycle? Why it is important to adhere to the life-cycle model while developing a large software product?

#### SECTION-C

- 7. Explain the following Software life cycle models in detail with suitable diagrams:
  - a) Prototyping Model
  - b) Spiral Model.
- 8. Write short notes on the following:
  - a) Architectural Design
  - b) Create a DFD on "Project Management"
  - c) Decision trees
  - d) LOC AND KLOC
- 9. What do you mean by project scheduling? How PERT charts are used to plan the scheduling of a project? How PERT Chart is different from GANTT Chart?

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