KADI SARVA VISHWAVIDYALAYA

BE SEMESTER-V (CE/IT/CSE) Examination April - 2025

Subject Name: Software Engineering
Subject Code: CT501-N

Date: 05/04/25   Time: 12:30 pm to 3:30 pm   Total Marks: 70

Instructions:
1. Answer each section in separate answer sheet.
2. Use of scientific calculator is permitted.
3. All questions are Compulsory.
4. Indicate clearly, the option you attempt along with its respective question number.
5. Use the last page of main supplementary of rough work.

Section-I

Q-1 (A) Define software engineering. What is the need of software engineering? [5]

(B) How are Software Myths affecting Software Process? Explain it in brief. [5]

(C) Explain Software Engineering as a Layered Technology. [5]

OR

(C) What is agility? List the different agile process model and Explain scrum model in details. [5]

Q-2 (A) Explain Spiral model with diagram and also write advantages of this model. [5]

(B) Draw an use case diagram for college management system. [5]

OR

Q-2 (A) What is SRS? Explain characteristics of a good SRS. [5]

(B) Explain XP programing model with its advantages. [5]

Q-3 (A) What is requirements elicitation? Explain various activities performed in it. [5]

(B) Define following terms: 1) Abstraction 2) Architecture 3) Modularity 4) Cohesion 5) Information hiding. [5]

OR

Q-3 (A) Explain functional and non-functional requirements of hospital management system. [5]

(B) Explain Computer Aided Software Engineering (CASE). [5]

Section-II

Q-4 **(A)** What is testing? Write a difference between unit testing and integration testing strategy. [5]

(B) List and explain requirement engineering tasks. [5]

(C) Draw an activity diagram for electricity billing system. [5]

OR

(C) Explain LOC based Software Project Estimation Model with Example. [5]

Q-5 **(A)** What do you mean by risk? Explain any two types of software risk. [5]

(B) Write a difference between the ~~testing and~~ black box and white box testing. [5]

OR

Q-5 **(A)** What is coupling? Explain any two types of coupling. [5]

(B) Explain COCOMO – II model with example. [5]

Q-6 **(A)** What is RMMM? Explain in details. [5]

(B) Provide at least two real-world examples of soft-trends to support your explanation. [5]

OR

Q-6 **(A)** What is pattern-based software design? Explain quality attributes of software design. [5]

(B) What is SQA? Explain tasks of SQA. [5]

------------Best of Luck------------