

**School of Computer Science Engineering and Information Systems
Winter Semester 2024-2025**

Continuous Assessment Test – I

Programme Name & Branch: B. Tech. IT

Course Name & code: BITE307L, Software Engineering

Faculty Name (s): Dr. Sweta Bhattacharya, Dr. Karthikeyan. P, Dr. Krithika L.B

Class Number (s): VL2024250503094, VL2024250503098, , VL2024250503106

Date of Examination: 31.01.2025

Exam Duration: 90 Min.

Maximum Marks: 50

General instruction(s): Answer ALL the Questions

Q.No.	Question	Max Marks	CO	BL
1.	A hospital needs a software system to monitor patients in the ICU. The system includes functionality for real-time monitoring of vital signs (e.g., heart rate, blood pressure, and oxygen levels), generating alerts for critical conditions, and storing patient data securely after thoroughly tested. Each diagnosis deliverables should be approved the doctor before it gets published. This software is reviewed and evaluated every stipulated period for the development. Identify the suitable software process model for the above scenario and justify your choice of software process model with detailed explanation.	10	01	03
2.	A small start-up named "Smart Work-office" is growing rapidly and struggling to manage its projects and tasks effectively. Currently, the team uses a mix of spread sheets, emails, and verbal communication, which often leads to miscommunication, missed deadlines, and reduced productivity. The management has decided to invest in a centralized task management system to streamline operations. Explain the functional and non-functional requirements for a new software application tailored to meet the start-up's specific needs.	10	02	03

Q.No.	Question	Max Marks	CO	BL
3.	A retail chain, "Shop Smart" has been expanding rapidly and receives feedback from customers through various channels such as emails, surveys, social media, and in-store comment cards. However, they lack a centralized system to collect, organize, and analyse this feedback. To address this issue, Shop Smart wants to develop a Customer Feedback Management System that integrates all feedback channels and provides actionable insights. Determine and explain the most effective requirements elicitation techniques (ANY TWO) to gather comprehensive and accurate requirements for the "Shop Smart".	10	02	06
4.	Plot an efficient use case diagram for the scenario "Shop Smart" mentioned in question number 3.	10	03	04
5.	Define the necessary classes along with their attributes and operations for the "Student's Web Portal." Create a class diagram using appropriate notations and relationships to represent the scenario.	10	03	06

NOTE*: Please refer below to the BL – Bloom's Taxonomy Levels and mention the respective level in the questions.

Bloom's Taxonomy Levels	Category
BL1	Remembering
BL2	Understanding
BL3	Applying
BL4	Analyzing
BL5	Evaluating
BL6	Creating