VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act 1956)

School of Computer Science and Engineering
Winter Semester 2023-2024 Continuous Assessment Test – I

SLOT: B1+TB1

Programme Name & Branch: M.Tech. (Integrated) CSE & M.Tech. (Integrated) CSE with Specialization in Data Science

Course Name & code: CSI3014 Software Verification and Validation

Class Number (s): VL2023240502425, VL2023240502509

Faculty Name (s): Prof. Narayanan Prasanth N, Prof. Jothi K R

Maximum Marks: 50

Exam Duration: 90 Min.

General instruction(s): Answer all the questions

Q. No.	Question	Max Marks
1.	You are a project manager leading a software development team in a fast-paced startup environment. The company has just secured a new client for a custom e-commerce platform, and the client has specific requirements for a seamless online shopping experience. The project is on a tight deadline, and the client is eager to launch the platform as soon as possible. As the project manager, suggest a suitable process model to ensure the successful delivery of the e-commerce application and justify the selection of the model. – prototypes	10
2.	You are a Team Leader for a software development team working on a mobile application project for a client in the healthcare industry. The client has requested frequent updates and is actively involved in the development process to ensure the product aligns with their specific needs. The team has been facing challenges in meeting the client's evolving requirements. As the Team Leader, outline how you would address the challenges related to client involvement and changing requirements. Suggest a flexible and process-driven framework that suits the above requirements by periodically visualizing your work. – kanban	10
3.	You are a requirements engineer working on a project to develop a new online learning management system (LMS) for a university. The stakeholders, including faculty members, students, and administrators, have diverse and sometimes conflicting requirements for the system. Additionally, there are budget constraints, and the project timeline is tight. As the requirements engineer, describe how you would navigate the requirements engineering process for the development of the online learning management system. Discuss the tools and techniques you would use to ensure that the final set of requirements accurately captures the needs of all stakeholders and serves as a solid foundation for the development team.	10
4.	You are a test manager overseeing the quality assurance process for a financial software application. The application is critical for handling transactions, and any defects could lead to financial discrepancies and customer dissatisfaction. Discuss the usage of static testing to address the above issues in the application. Also, compare and contrast the static and dynamic testing approaches.	10
5.	As a Design Head, you are assigned to develop a design model for the VIT Hostel Management System. As a part of your work, show how would you incorporate the following concepts in the design model and justify your inclusions with a neat example. 1. Patterns 2. Separation of concerns 3. Coupling and Cohesion 4. Functional Independence. 5. Aspects	10

ALL THE BEST