

**VIT**

Vellore Institute of Technology

(Approved as Deemed University under section 3 of UGC Act, 1956)

REG.NO.: **15**

SCHOOL OF COMPUTER SCIENCE ENGINEERING AND INFORMATION SYSTEMS
CONTINUOUS ASSESSMENT TEST - I
WINTER SEMESTER 2024-2025

SLOT: E1+TE1

Programme Name & Branch : M.Tech –Software Engineering
Course Code and Course Name : ISWE202L – Requirements Engineering and Management
Faculty Name(s) : Prof.Senthil Kumar P, Prof.Sree Dharinya S,
Prof. Sujatha R, Prof. Jagadeesh G, Prof.Kamalakannan J
Class Number(s) : 3380, 3382, 3384, 3377, 3378
Date of Examination : 31-01-2025
Exam Duration : 90 minutes **Maximum Marks: 50**

Course Outcomes

CO1- Understand the importance of requirements engineering management and change management

CO2- Illustrate the various problem analysis techniques

CO3- Apply the various strategies of requirement elicitation process and appreciate the challenges of requirement elicitation

Q. No	Answer All Questions	M	CO	BL
1.	Discuss the transition from the problem domain to the solution domain in system design. Evaluate how well the features and requirements align with stakeholder needs, and explain how distinguishing between 'requirements' and 'features' enhances communication regarding the system's capabilities. Provide relevant examples to support your explanation.	10	CO1	BL2
2.	A medium-sized company wants to develop an Employee Management System (EMS) to handle tasks such as employee records, attendance tracking, payroll processing, and performance management. The system is intended to automate existing manual processes, improve efficiency, and integrate with other internal systems like HR, finance, and IT management. The company expects the EMS to evolve as business needs grow, with feedback from HR staff and department managers being crucial in refining the system's features over time. Identify a suitable software process model for developing the EMS, justify why this model is appropriate given the evolving business requirements and customer feedback, and provide a diagram to illustrate the model.	10	CO1	BL3
3.	Develop a five-step problem analysis to address the issues identified in the declining customer satisfaction with an e-commerce platform designed for small and medium-sized businesses. The platform is facing increased customer complaints, negative reviews, and churn, due to slow performance, poor mobile optimization, lack of advanced features, confusion over pricing structure, and slow customer support response times. As a result, the company is struggling to retain existing customers and attract new users, putting its growth and competitiveness at risk.	10	CO2	BL3
4.	Explain how the principles of systems engineering guide the development of embedded systems by integrating multiple disciplines, managing customer and technical requirements, and decomposing complex systems into subsystems to ensure a successful, functional, and well-validated solution. Provide a suitable example to illustrate your explanation.	10	CO2	BL2
5.	Suppose your team has been assigned to develop a new mobile banking app for a bank, with features such as account management, fund transfers, bill payments, and transaction history. You have chosen interviews as the primary technique for gathering detailed requirements. Describe the interview process and provide a generic template for conducting user and stakeholder interviews to ensure comprehensive and actionable insights.	10	CO3	BL3
