Reg.No.:												

VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 60024

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – JAN. 2025
Sixth Semester
Information Technology
U19IT620 - SOFTWARE ENGINEERING
(Common to CSE)
(Regulation 2019)

Time: Three Hours Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	If you have to develop a word processing software product, what process model will you choose? Justify your answer and examine.	2	K3	CO1
2.	List two deficiencies in waterfall model. Which process model do you suggest to overcome each deficiency ?	2	K1	CO1
3.	List the characteristics of a good software requirements specification(SRS).	2	K1	CO2
4.	Mention the reason for negotiating the requirements?	2	K2	CO2
5.	How do we achieve generalization and specialization in a class diagram?	2	K1	CO3
6.	What are the primary goals of UML modeling?	2	K1	CO3
7.	List out the various types of coupling.	2	K1	CO4
8.	Name the commonly used architectural styles.	2	K1	CO4
9.	How is software testing results related to the reliability of software?	2	K1	CO5
10.	Compare between alpha and beta testing.	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.		Questions	Marks	KL	CO
11.	a)	Explain the process model that you would choose to manufacture a car explain giving suitable reasons. Discuss in detail about Scrum.	13	K2	CO1
		(OR)			
	b)	Explain the spiral model. What is the task region in the spiral model? How does the customer wins by getting the system or product that satisfy the majority of the customer's needs and the developer wins by working to realistic and achievable budgets and deadline?	13	K2	CO1
12.	a)	Differentiate functional and non-functional requirements. Analyze about the requirement engineering process and how the requirements are managed.	13	K1	CO2
		(OR)			
	b)	What is requirements elicitation? Explain various activities performed in it with watch system that facilitates to set time and alarm as an example.	13	K1	CO2
13.	a)	Construct the Use case, sequence and class UML diagrams for Bank ATM system.	13	K4	CO3
		(OR)			
	b)	Explain about		K2	CO3
		i. Use case diagram.	6		
		ii. Interaction diagram.	7		
14.	a)	Compare horizontal vs. vertical partitioning with appropriate use case.	13	K2	CO4
		(OR)			
	b)	Summarize the usage and types of design pattern.	13	K2	CO4
15.	a)	Explain about equivalence class partitioning and validation testing.	13	K1	CO5
		(OR)			
	b)	i. Define regression testing. How it differs from other testing.	7	K1	CO5
		ii. Elaborate the version control in SCM process.	6		

PART – C

(1 x 15 = 15 Marks)

Q.No.		Questions	Marks	KL	CO
16.	a)	How would you prioritize testing efforts in the smart home automation system, considering both functional and non-functional requirements? Provide a rationale for your prioritization strategy, and discuss how it aligns with ensuring the reliability and security of the system. In the context of testing, what challenges do you anticipate when integrating with diverse home devices? Propose specific strategies or tools to address these challenges and ensure seamless interoperability within the smart home ecosystem.	15	K3	CO5
		(OR)			
	b)	Design following UML diagram for library management system. i. Use case diagram ii. Class diagram iii. Interaction diagram iv. Activity diagram	15	K3	CO5