Reg. No.															

Question Paper Code	13779

M.E. - DEGREE EXAMINATIONS, APRIL / MAY 2025

Second Semester

M.E. - Computer Science and Engineering (with Specialization in Networks)

24PCNEL205 - ADVANCED SOFTWARE ENGINEERING

Regulations - 2024

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks	K – Level	CO
1.	Summarize the pros and cons of iterative software development model.	2	K2	CO1
2.	What is software process? List its activities.	2	K1	CO1
3.	List out the principles of project scheduling.	2	K1	CO2
4.	Differentiate between size oriented and function oriented metrics.	2	K2	CO2
5.	What is coupling and list the various types of coupling?	2	K1	CO3
6.	Distinguish between transform flow and transaction flow.	2	K2	CO3
7.	Distinguish between stress and load testing.	2	K2	CO4
8.	How is software testing results related to the reliability of software?	2	K1	CO4
9.	Differentiate the private and public cloud.	2	K2	CO5
10.	What are the key components of DevOps?	2	K1	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

			Marks	K – Level	CO
11.	a)	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
		OR			
	b)	Interpret the best suitable process model for Risk management. Discuss in detail with an Example. Given an the advantage and disadvantage of the model.	13	K2	CO1
12.	a)	Explain how breakdown structure is used in software engineering Discuss how software project scheduling helps in timely release of a product.	13	K2	CO2
		OR			
	b)	Summarize how function point analysis methodology is applied in estimation of software size? Explain. Why FPA methodology is better than LOC methodology?	13	K2	CO2

13.	a)	Apply your understanding on the following design models (i) Data design elements and Architectural design elements. (ii) Interface design elements and Component-level design elements. (iii) Deployment-level design elements	*13*	*K3*	*CO3*
		OR			
	b)	Experiment with the various coupling and cohesion methods used in software design with suitable examples.	*13*	*K3*	*CO3*
14.	a)	Interpret black box testing. Explain the different types of black box testing strategies. Explain by considering suitable examples.	*13*	*K2*	*CO4*
		OR			
	b)	Discuss in detail about static testing and structural testing. Also mention the difference between these two testing concepts.	*13*	*K2*	*CO4*
15.	a)	Compare Agile and DevOps, and explain their complementary nature in achieving efficient software development and delivery.	*13*	*K2*	*CO5*
		OR			
	b)	Illustrate the pros and cons of using cloud as a platform for software development.	*13*	*K2*	*CO5*

PART - C (1 × 15 = 15 Marks)

16.	a)	Construct the use case model for activities involved in ordering food in a restaurant from the point when the customer enters a restaurant to the point when he leaves the restaurant.	*15*	*K3*	*CO3*
		OR			
	b)	Develop detailed data flow diagram for activities involved in online shopping portal. Assume suitable requirements for an application.	*15*	*K3*	*CO3*