Reg. No.															

Question Paper Code	13764

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

Second Semester

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

24PCNEL209 - MOBILE AND PERVASIVE COMPUTING

Regulations - 2024

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks	K – Level	CO
1.	Illustrate the features of Mobile IP protocol.	2	K1	CO1
2.	Outline the structure of WML Script.	2	K2	CO1
3.	List the key features of CC and PP Exchange Protocol.	2	K1	CO2
4.	Summarize the QoS parameters for Mobility.	2	K2	CO2
5.	Depict the various mobility nodes in Hands off and discuss how they are tracked?	2	K2	CO3
6.	What is Distance based update strategies?	2	K1	CO3
7.	List the characteristics and principles of pervasive computing.	2	K1	CO4
8.	List the Uses of smart sensors and actuators.	2	K1	CO4
9.	Illustrate Sync ML framework in terms of data synchronization.	2	K2	CO5
10.	Discuss the need for context aware security.	2	K2	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

			Marks	K – Level	CO
11.	a)	Outline the WAP Push architecture to deliver notifications to mobile devices.	13	K2	CO1
		OR			
	b)	Explain the Emerging technologies in wireless networks.	13	K2	CO1
12.	a)	Relate how the functions, architecture, and design considerations are collectively contributed in a mobile computing environment.	13	K2	CO2
		OR			
	b)	Illustrate how the data management features in WAE and the Coda file system and helps to maintain data consistency and availability in a mobile computing environment?	13	K2	CO2

13.	a)	Summarize the functions, time and movement strategies, to translate the location management in cellular networks, and their interdependencies in ensuring seamless connectivity.	*13*	*K2*	*CO3*
		OR			
	b)	Illustrate the ALI technologies, to interpret their advantages and limitations in delivering accurate and reliable positioning.	*13*	*K2*	*CO3*
14.	a)	Explain the architecture of pervasive computing, to classify the pervasive device that ensures interaction transparency.	*13*	*K2*	*CO4*
		OR			
	b)	Demonstrate that the context communication and access services in smart sensor–actuator systems can extend the pervasive computing environments.	*13*	*K2*	*CO4*
15.	a)	Compare the open-protocol service discovery technologies based on their operational mechanisms for sensor network environments.	*13*	*K2*	*CO5*
		OR			
	b)	Summarize the context-aware mobile service in selecting their addressing and communication strategies in sensor networks and enhance data forwarding efficiency in open protocols.	*13*	*K2*	*CO5*

PART - C (1 × 15 = 15 Marks)

16.	a)	Apply the concept of tracking management schemes in wireless mobile networks to enhance location accuracy and reduce signaling overhead.	*15*	*K3*	*CO3*
		OR			
	b)	Explain a scenario where the network utilizes various Hands off techniques and uses basic reference model.	*15*	*K3*	*CO3*