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Reg. No.												

Question Paper Code	11517

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022

Sixth Semester

Electronics and Communication Engineering

EC8004 - WIRELESS NETWORKS

(Regulations 2017)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	Illustrate the design goals of WLANs.	*2,K1,CO1*
2.	Outline three differences between HIPERLAN 1 and HIPERLAN 2.	*2,K2,CO1*
3.	Summarize the different entities in a mobile IP.	*2,K2,CO2*
4.	Show the comparison of an Adhoc network and a cellular network with respect to a) Bandwidth usage b) Cost Effectiveness.	*2,K2,CO2*
5.	List the sub-systems of UMTS terrestrial radio access network.	*2,K1,CO3*
6.	Interpret the concept of TD-CDMA.	*2,K2,CO3*
7.	Summarize the features of LMDS.	*2,K2,CO4*
8.	Analyze the access schemes used in multichannel multipoint distribution system.	*2,K2,CO4*
9.	List the key features of 4G networks from the user point of view.	*2,K1,CO5*
10.	What is multi carrier modulation?	*2,K1,CO5*

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	With a neat sketch describe the architecture of IEEE 802.11 and explain the MAC management techniques.	*13,K2,CO1*
		OR	
	b)	Construct the architecture and protocol stack of Bluetooth technology.	*13,K2,CO1*
12.	a)	Illustrate with a neat diagram and example destination sequence distance vector (DSDV) algorithm of Adhoc networks.	*13,K2,CO2*
		OR	
	b)	State the entities and terminologies used in mobile IP along with tunneling and also explain the three types of encapsulation mechanisms used in mobile IP.	*13,K2,CO2*

13. a) Elaborate on UMTS core network architecture with a neat sketch. *13,K2,CO3*

OR

b) Evaluate the architecture of generic TD-SCDMA network. *13,K2,CO3*

14. a) Outline the WLAN adaptation function in tight coupling architecture and explain with an appropriate diagram. *13,K2,CO4*

OR

b) Examine the multichannel multipoint distribution system (MMDS). Distinguish it with LMDS. *13,K2,CO4*

15. a) Analyze the key challenges faced by 4G networks and also propose solutions of how to mitigate those challenges. *13,K2,CO5*

OR

b) Describe the functions and architecture of LTE. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) Describe the components of the MMDS architecture. *15,K2,CO6*

OR

b) Determine the categories of MVNO and explain the architecture in detail. *15,K2,CO6*