Reg. No.															

Question Paper Code	12681

M.E. / M.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024

Second Semester

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

20PCNPC202 - WIRELESS TECHNOLOGIES

Regulations - 2020

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks	K – Level	CO
1.	Compare wireless with wired communication.	2	K2	CO1
2.	List the challenges of 5G Network.	2	K1	CO1
3.	What are the types of beam forming techniques?	2	K1	CO2
4.	Define On/off keying (OOK) modulation.	2	K1	CO2
5.	Give the multiple access uplink and downlink capacity region.	2	K1	CO3
6.	What are the basic features of 5G Network?	2	K1	CO3
7.	What is Visible Light Communication (VLC)?	2	K1	CO4
8.	Give the applications of M2M.	2	K1	CO4
9.	What are the features enabled by D2D communication?	2	K1	CO5
10.	Define the design principles of massive MTC.	2	K1	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

			Marks	K – Level	CO
11.	a)	Briefly explain about Historical trends and evolution of 5G network.	13	K2	CO1
		OR			
	b)	Describe new policies and policy related studies on spectrum management in 5G networks.	13	K2	CO1
12.	a)	Explain MIMO systems and their applications wireless technologies environment.	13	K2	CO2
		OR			
	b)	Explain in detail about spatial diversity of antenna arrays.	13	K2	CO2
13.	a)	Discuss in detail about Access design principles for multi-user communications.	13	K2	CO3
		OR			
	b)	Explain Radio access for deployments of network systems.	13	K2	CO3

14.	a)	Illustrate Back hauling and explain its mechanism.	*13*	*K2*	*CO4*
		OR			
	b)	Explain the key enablers that are required for JT CoMP.	*13*	*K2*	*CO4*
15.	a)	Describe Ultra reliable low latency MTC in detail.	*13*	*K2*	*CO5*
		OR			
	b)	Explain features of Massive MTC in detail.	*13*	*K2*	*CO5*

PART - C (1 × 15 = 15 Marks)

16.	a)	Discuss Buffer aided relaying in Wireless 5G networks.	*15*	*K2*	*CO6*
		OR			
	b)	Explain various applications of Wireless 5G networks.	*15*	*K2*	*CO6*