

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

Fifth Semester

Electronics and Communication Engineering

EC3501 - Wireless Communication

Regulations - 2021

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	List the two types of trucked System.	L1	1	2
2.	How does the microcell zone concept improve the system capacity?	L3	1	2
3.	Give the equation for average large scale-path loss between the transmitter and receiver as a function of distance.	L1	2	2
4.	Classify the three basic propagation mechanisms.	L2	2	2
5.	Compare the difference between MSK and GMSK.	L2	3	2
6.	Define Fading.	L1	3	2
7.	Name the advantages of CDMA over TDMA.	L1	4	2
8.	Infer some applications of SDMA.	L1	4	2
9.	Classify wireless and fixed Telephone networks.	L2	5	2
10.	Which switching method is more efficient for transmitting bursty data traffic.	L3	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a Analyse the concept of (i) Repeaters for range extension (ii) Microcell zone concept	L4	1	16
	Or			
	b Examine the handoff in a cellular system implemented. Distinguish the different types of handoffs. Technique in wireless Communication.	L4	1	16
12.	a Derive the expression for free space propagation model in detail with no obstacle in between the TX and RX.	L2	2	16
	Or			
	b Classify the small scale fading in wireless channel based on multipath time delay spread and explain its features.	L2	2	16

13.	a	Describe the modulation of GMSK and its advantages with neat block diagram.	L4	3	16
		Or			
	b	Examine the various types of Diversity Techniques in wireless Communication.	L4	3	16
14.	a	Interpret the basic types of Space Division Multiple Access (SDMA) used in wireless communication.	L4	4	16
		Or			
	b	Compare the two different multiple access techniques of FDMA and TDMA with neat diagram.	L4	4	16
15.	a	Classify the difference between Wireless and Fixed Telephone Networks.	L2	5	16
		Or			
	b	Describe in detail about Universal Mobile Telecommunications System (UTMS) in network database with neat diagram.	L2	5	16