

Name.		Printed Pages:01		
Student Admn. No.:				
School of Electrical, Electronics and Communication Engineering Semester End Examination (SEE), June 2023 [Programme: M.Tech. CE(SC)] [Semester: 2] [Batch: 2022-24]				
Course Title: Mobile and Wireless Communication		Max Marks: 50		
Course Code: MCEN5021		Time: 3 Hrs.		
Instructions:	1. All questions are compulsory. 2. Assume missing data suitably, if any.			
		CO	K Level	Marks
SECTION-A (10 Marks)		2 Marks each		
1.	Write short note on Satellite communication systems.	CO5	K1	2
2.	Explain Co-channel interference and system capacity in wireless channels.	CO2	K2	2
3.	Express analytically Erlang's traffic intensity for trunking systems.	CO1	K1	2
4.	Describe practical handoff considerations in wireless channels.	CO1	K1	2
5.	Express analytically path loss for free space wireless channels.	CO1	K1	2
SECTION-B (16 Marks)				
6.	Differentiate between Maximal-ratio combining and Selection space diversity techniques.	CO2	K4	5
7.	Explain path amplitude correlation coefficient for multipath channels with the help of measured signal strength diagram.	CO2	K3	5
8.	Explain types of fading effects due to Doppler spread.	CO2	K3	6
SECTION-C (24 Marks)		8 Marks each		
9.	Explain QPSK coherent modulation and demodulation.	CO3	K4	8
10.	Explain frequency hopped spread spectrum technique.	CO5	K5	8
11.	Explain with block diagram phase demodulation for Direct sequence spread spectrum technique.	CO6	K6	8