Register No: _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Fourth Semester

Electronics and Communication Engineering

EC3491 - Communication Systems

Regulations - 2021

Duration : 3 Hrs *Maximum : 100 Marks*

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

Q.No	*Questions*	*BLT*	*CO*	*Marks*
1.	Define: Modulation.	RE	1	2
2.	What is an envelope detector?	RE	1	2
3.	Define: Nyquist Criterian.	RE	2	2
4.	Illustrate the purpose of sampling.	UN	2	2
5.	Outline the properties of pulse modulation.	UN	3	2
6.	List out the advantages of viterbi decoder.	AN	3	2
7.	Outline the uses of digital modulation.	UN	4	2
8.	What is an adjacent channel power?	RE	4	2
9.	List out some of the demodulation techniques.	AN	5	2
10.	Define: Inter symbol interference.	RE	5	2

*PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)*

Q.No		*Questions*	*BLT*	*CO*	*Marks*
11.	a	Develop the details about SSB generation.	AP	1	13
		Or			
	b	Build the block diagram of super heterodyne receiver and explain the each block in detail.	AP	1	13
12.	a	Explain about gaussian and white noise characteristics in detail.	UN	2	13
		Or			
	b	Explain with suitable examples about how the signals are reconstructed.	UN	2	13
13.	a	Explain in details about the digital multiplexers with neat diagrams.	UN	3	13
		Or			
	b	Explain about the details of differential PCM with suitable examples.	UN	3	13
14.	a	Utilize in detail about the geometric representation of signals.	AP	4	13
		Or			
	b	Utilize the principles of operation of DPSK with neat sketch.	AP	4	13

15.	a	Contrast in detail about coherent communication with waveforms.	AN	5	13
		Or			
	b	Examine about the probability of error evaluation in detail.	AN	5	13

*PART – C (Marks 1*15 = 15)*

Q.No		*Questions*	*BLT*	*CO*	*Marks*
16.	a	Contrast about the VSB generation with suitable diagram.	AN	1	15
		Or			
	b	Examine in detail about carrier synchronization.	AN	4	15