

CRM08

Rev 1.10

<EC>

18/07/22

CONTINUOUS INTERNAL EVALUATION - 3

Dept:EC	Sem / Div: 6 th A&B	Sub: Digital Communication	S Code: 18EC61
Date:21/07/22	Time: 9:30-11:00 am	Max Marks: 50	Elective:N

Note: Answer any 2 full questions, choosing one full question from each part.

QN	Questions	Marks	RBT	CO's
PART A				
1	a With a neat block diagram Explain the digital PAM transmission through bandlimited base band channels and obtain the expression for ISI.	10	L2	CO4
	b Explain the generation and demodulation of direct sequence spread spectrum signal with the relevant waveforms and spectrum.	10	L2	CO5
	c Write a note on low detectability signal transmission as an application of direct sequence spread spectrum	5	L2	CO5
OR				
2	a Explain the design of bandlimited signals with controlled ISI. Describe the time domain and frequency domain characteristics of a duobinary signal.	10	L3	CO4
	b With a neat block diagram explain the frequency hopped spread spectrum. Explain the terms chip rate, Jamming Margin and processing gain	10	L2	CO5
	c Explain the Nyquist criterion for distortionless baseband binary transmission.	5	L2	CO4
PART B				

3	a	With a neat diagram and relevant expressions explain the concept of Adaptive equalization.	10	L2	CO4
	b	With a neat diagram explain the generation of PN sequences and state its properties.	10	L2	CO5
	c	Write a short note on application of spread spectrum in wireless LAN's.	5	L2	CO5

OR

4	a	What is a zero forcing equalizer? With a neat block diagram explain the operation of linear transversal filter.	10	L2	CO4
	b	With a neat block diagram explain the IS-95 reverse link.	10	L2	CO5
	c	What is eye pattern? With a neat diagram explain the timing features pertaining to eye diagram and its interpretation for the baseband binary data transmission system.	5	L2	CO4

Prepared by: Gurusandesh M

HOD