R16

Reg. No:

Time: 3 hours   Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	a	State sampling theorem.	5M
	b	With a neat block diagram explain PCM transmitter and receiver?	7M

OR

2	a	Explain the DPCM system with neat diagram?	7M
	b	Discuss the noise effects in Delta Modulation.	5M

UNIT-II

3	a	Explain the rectangular pulse for a matched filter?	6M
	b	What is correlative coding? Explain.	6M

OR

4	a	Explain in detail about Inter symbol interference and its effects?	7M
	b	Explain about partial signaling scheme.	5M

UNIT-III

5	a	Explain the Gram-Schmidt orthogonalization procedure?	7M
	b	Write a brief note on signal constellation diagram.	5M

OR

6		Draw and explain the block diagram of the structure and behavior of Matched filter Receiver.	12M

UNIT-IV

7	a	Derive the probability of error for a coherent QPSK system.	6M
	b	Compare pass band transmission with band pass transmission.	6M

OR

8	a	Describe the generation and detection of DPSK.	7M
	b	What is the bandwidth of M-array QAM?	5M

UNIT-V

9	a	The generator polynomial of a (15, 11) hamming code is defined by: $g(X) = 1+X+X^2$. Develop an encoder and syndrome calculator for this code, using a systematic form of the code.	7M
	b	Write the advantages and disadvantages of parity check codes.	5M

OR

10	a	Describe the matrix representation of linear block codes?	6M
	b	Explain the Convolutional Encoding and Decoding methods.	6M

*** END ***