ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

CLASS TEST 1 Feb24 ECPC-210 Digital Communication

MM 20

Time 50 minutes

Q. I How does a dispersive channel ca	auca ICIO Evalaia	
O 2. What is a matched filter 2 West	ause isir Explain	2
Q.2. What is a matched filter? Write in	ts important properties.	3
Q. 3 How can an integrate and dump	circuit be used as a matched for	lter for a mostan au 1
pulse? Explain.	inatoned i	inci for a rectangular
Q.4 Write the equation for average prochannel. Write meaning of each syn	robability of	
channel. Write meaning of each sun	abol was to symbol error Pe fo	r a binary symmetric
channel. Write meaning of each syn Eb/No (in dis) plot.	in the expression. A	lso sketch Pe versus
O S Family Plot.		To versus
Q.5 For an ideal channel of bandwi	dth W, what is the mani-	4
Eb/No (in dB) plot. Q.5 For an ideal channel of bandwi zero ISi:	is the maximum	possible data rate for
() h while and aftle fell	4	
(i) MAP rule (ii) Maximum likelihor Correlator receiver	od detection	<u> </u>
Correlator manifest	od detection rule (iii) Minimum	distance
Correlator receiver	T. A.	distance decoder (iv)
and the second s		