CSE320: Data Communications

Quiz-03 (**Set** – **B**)

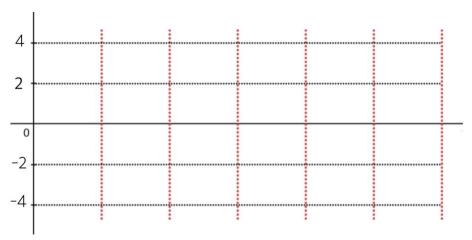
Total Marks: 20

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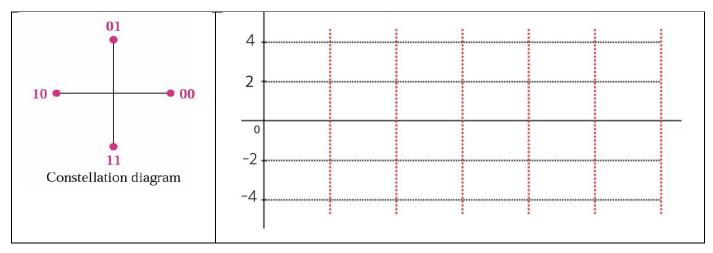
1. For the following Multi-level ASK, find the bit stream form the signal below: [4]

Bit Pattern	Amplitude	6 C	
00	0V	2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
01	4V	0	
10	1V	-2 -	
11	3V	-4 - 1 1 1 1 1	• • • • • • • • • • • • • • • • • • • •
		-6	

2. Draw the analog signal for the digital bit stream 101100011011 using Multi-level FSK where 2 bits at a time get transmitted. [Amplitude of the Carrier Signal = 2V and phase = 0 rad, Number of Cycles of the signal element for different Bit Patterns: 00- 2, 01- 4, 10- 3, 11- 1] [4]



3. Draw the analog signal for the bit stream 1011001011 using the constellation diagram given below [frequency = 2 for each signal element and amplitude = 4V] [4]



4. Why PSK is much more robust than ASK? [4]

5. If the value of $\Delta f = 2$, what is the difference between the carrier frequencies in FSK? [4]