

CSE320: Data Communications

Quiz-03 (Set – B)

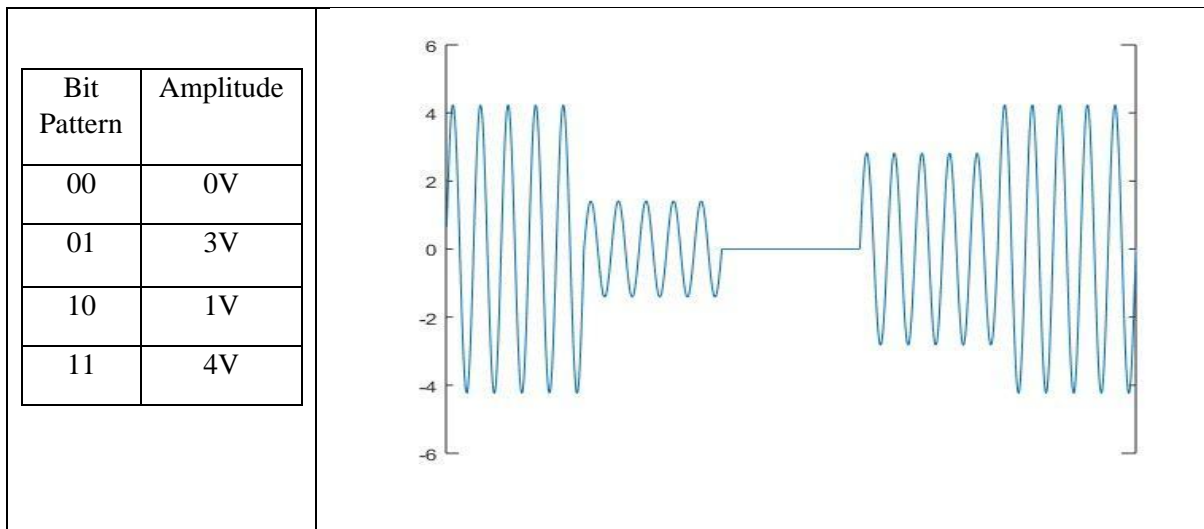
Total Marks: 20

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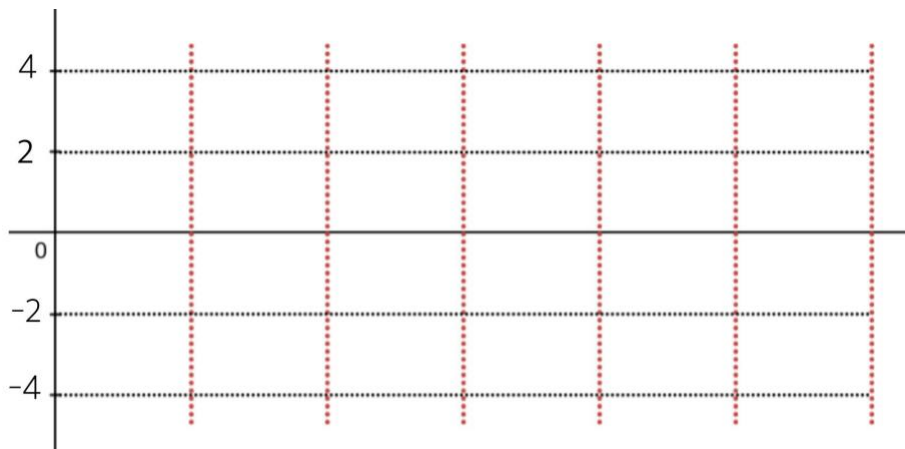
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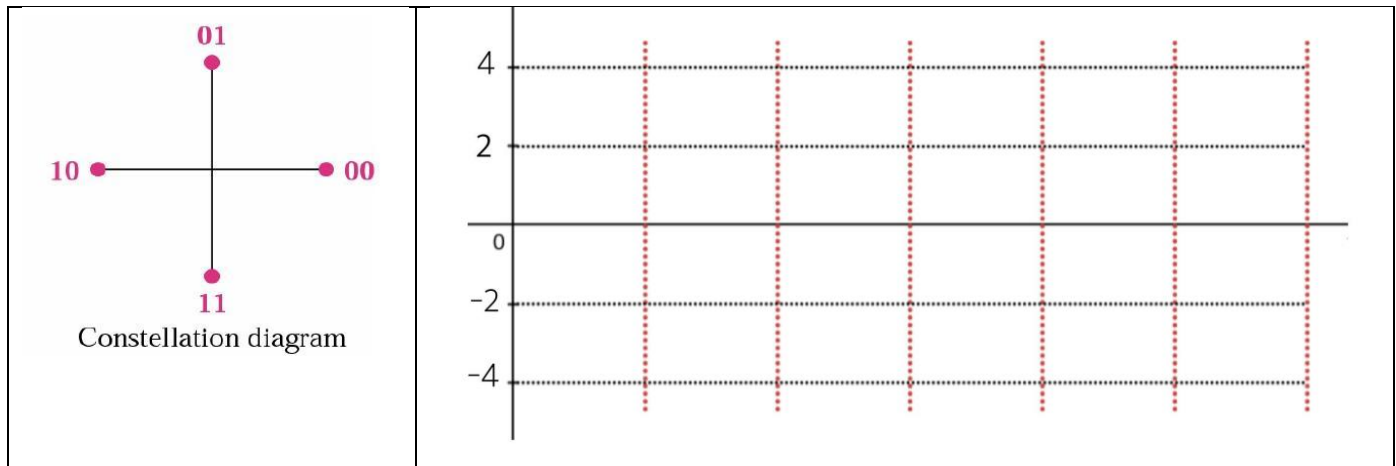
1. For the following Multi-level ASK, find the bit stream form the signal below: [4]



2. Draw the analog signal for the digital bit stream 110100011011 using Multi-level FSK where 2 bits at a time get transmitted. [Amplitude of the Carrier Signal = 4V and phase = 0 rad, Number of Cycles of the signal element for different Bit Patterns: 00: 1, 01: 3, 10: 4, 11: 2] [4]



3. Draw the analog signal for the bit stream 0111001110 using the constellation diagram given below [frequency = 2 for each signal element and amplitude = 4V] [4]



4. Which digital to analog modulation technique is the most susceptible to noise? Justify your answer. [4]

5. Draw the constellation diagram for the following cases. Find the peak amplitude value for each case and define the type of the modulation (ASK/ FSK/ PSK). The numbers in parentheses define the values of I (In-phase Carrier) and Q (Quadrature Carrier) respectively. [2 + 2 = 4]

(a) Two points at (3, 0) and (5, 0)

(b) Two points at (0, 4) and (0, -4)

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