Q1. For an encoded bit stream output of a Delta modulator, a repeating sequence of '1's or '0's would mean that the system is facing _____ error and a repeating sequence of alternate '1's and '0's would imply that it is facing _____ error.   [2 marks]

Q2. What is the principle of operation of an Adaptive Delta Modulator?   [2 marks]

_____

_____

Q3. In Differential PCM, the performance of the system depends directly on the performance of linear predictor. Justify.
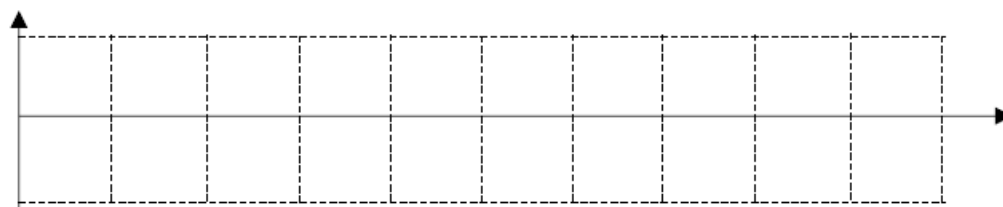
_____[3 marks]

Q4. For a Delta modulator, designed to avoid slope overload distortion, what should be the minimum sampling rate for a sinusoidal input of frequency 20000π rad/s if the SNR must be at least 25dB?   [3 marks]

_____

_____

_____

Q5. In the space provided, draw a neatly labelled line code representation of the below mentioned bit stream.
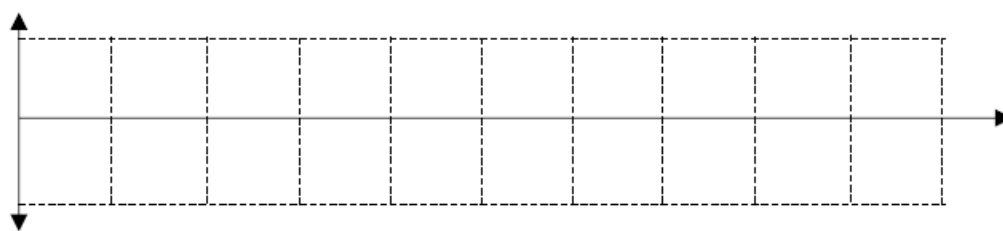
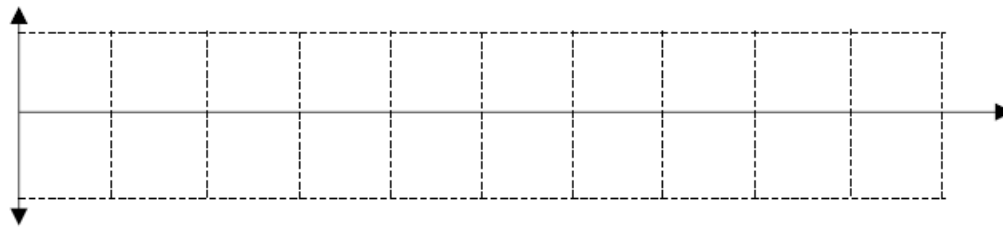[2+2+3+3 = 10 marks]

0   1   1   0   1   1   1   0   0   0

NRZ- M Polar

RZ bipolar

Manchester

Differential Manchester

Score : _____/20