

ASSIGNMENT-1

UNIT-1(CO-1)

1. a. Sketch the Block Diagram of Delta Modulation System, Illustrate the working of it in detail. 5M.
b. Deduce the Expression for Signal to Noise Ratio in a Delta Modulation system when input signal is a Single-tone. 5M.
2. a. Consider a companded PCM scheme using μ -law characteristic as given by the equation $C(x) = \frac{\ln(1+\mu|x|)}{\ln(1+\mu)} \text{sgn}(x)$ Where $\mu > 0, |x| \leq 1$. Show that The Signal to Quantization Noise Ratio of this companded PCM system is approximately equal to $\frac{3L^2}{\ln(1+\mu)^2}$. 5M.
b. Calculate SNR of Companded PCM system in decibels. 5M.
3. Explain the following in detail 10M.
 - i. Inter Symbol Interference.
 - ii. Eye Pattern.

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