



BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Guru Gobind Singh Indraprastha University, Delhi)

(An ISO 9001:2015 Certified Institution)

A-4, Paschim Vihar, Main Rohtak Road, New Delhi – 110 063

Department of Electronics and Communication Engineering

Student Name _____

Enroll. No _____

Semester: V sem

Date: _____

Course Code. : ETEC303

Course Title: Digital Communication

Quiz/Test No.: 02

Marks Obtained _____

Max. Marks : 01

Evaluator's Sign _____

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. [0.2 marks]

Q2. 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 30dB? [0.3 marks]

Q3. Justify the statement: "In Differential PCM, the performance of the system depends directly on the performance of linear predictor." [0.3 marks]

Q4. Use of non – uniform quantization for audio signals in PCM systems facilitates which of the following?

- a) Makes weak portions of signal stronger and strong portions of signal weaker [0.1 mark]
- b) Reduces number of bits required for representing strongest signals
- c) Decreases the dynamic range of the input signal
- d) All the above

Q5. Internationally accepted values of μ and A in μ - Law and A-Law companders are _____ and _____ respectively. [0.1 marks]
