

Delhi Institute of Technology and Management, Sonipat

Assignment No. – I

Subject: Digital Communication

Time: Submit within 7 days

Subject Code: ETEC-303

Max. Marks: 30

Date: 01.11.2021

Note: Attempt any five questions. All questions carry equal marks.

1. Explain Block Diagram of Digital Communication.
2. State & Explain Sampling Technique in details.
3. An Analog Signal is expressed by the equation

$$x(t) = 3 \cos 50\pi t + 10 \sin 300\pi t - \cos 100\pi t$$

Calculate Nyquist Rate for this signal.

4. State & Explain Quantization & their types in details.
5. Explain Companding & their types in details with their characteristics.
6. Explain Transmission Bandwidth in PCM Systems in details
7. Explain quantization error in PCM System
8. Explain different Line Encoding System in details.

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