

**S.E.(Electronics / Electronics & Telecommunication Engineering)**

**PRINCIPLES OF COMMUNICATION SYSTEMS**

**(2019Pattern) (Semester-II)**

1. Explain why ratio detector is preferred over Phase discriminator.
2. Differentiate between PAM and PPM.
3. Enlist different types of FM Demodulators in detail.
4. What is nyquist criterion? Draw the circuit diag. for flat top sampling.
5. What is the formula for Bandwidth of FM.? Compare wide band and Narrowband FM.
6. Use Unipolar RZ, Polar RZ, AMI, Split phase Manchester, unipolar NRZ, polar quaternary coding for 11001100. Draw waveform.
7. Explain the PCM transmission process.
8. Define sampling theorem. Explain in brief.
9. Draw the block diag. for PCM transmitter and receiver.
10. Explain inter symbol interference with eye diagram .What are the ways to reduce ISI.
11. Write short note on 1) Quantization Error.                      2) Quantization.
12. Write short note on scrambling process.
13. Explain band limited and time limited signal.
14. Use Unipolar RZ, Polar RZ, AMI, Split phase Manchester, unipolar NRZ, polar quaternary coding for 11000011. Draw waveform.
15. Explain in brief block diagram for delta modulation.