ELECTRONIC CIRCUITS AND COMMUNATION FUNDAMENTALS

- Explain the construction of n-channel JFET

- List the ideal Characteristics of Op-amp

- What is modulation in communication? What is the need for modulation?

- Compare TDM and FDM

- Explain Barkhausen Criteria for Oscillation. Calculate the frequency of oscillations of Colpitt's oscillator with $C_i = C_z - 500$ pF and L=1mH

- Derive the equations for Z_i, Z_o, A_v for common source configuration using voltage divider network

- Explain how op-amp can be used as averaging amplifier in inverting configuration

- Explain generation of SSB using phase shift method.

- Explain Superheterodyne receiver in detail and show waveforms at each stage

- State and proof Sampling theorem for Low pass Signal.

- Discuss Delta Modulation and Adaptive Delta Modulation

- Write short note on TDM-PCM System

- Write Short note on a) PLL b) Op-amp as Comparator