

**Elective I - Electronics in Communication**

**Unit - I: concepts of Communication Systems**

Electromagnetic spectrum – Frequency and wavelength – General Communication systems – Constituents of communication system – Accurate communication, signal and noise – Fast Communication.

**Unit - II : Modulation and Demodulation**

Modulation – Amplitude modulation – Frequency modulation – AM Transmitter – FM Transmitter I - Detection – Receiver characteristics – Super heterodyne receiver – FM broadcast receiver.

**Unit - III : Antenna and Wave Propagation**

Introduction – Principles of radiation – Half wave dipole – Yagi Uda Antenna – Microwave antenna – Parabolic antenna – Propagation of waves – Space wave – Sky wave – Ionosphere.

**Unit - IV : Satellite and Radar Communication**

Satellite links – Orbits – Satellite construction – Domestic Satellites – Telemetry – Elements of Radar system – Limitations of Radar – Radar Altimeters – Radar Beacons – Interrogating – Radars – Instrument landing system.

**Unit - V : Recent Development Lin Communication**

Telephone communication – Public network – Trunk circuits – Paging systems – Cellular telephone – Facsimile – Videotext – Fiber optic communication – Network Communication

**Text Books:**

1. Electronics Communication Systems, George Kennedy & Bernord David, TMH
2. Principles of Communications, Taub and Schilling, Tata McGraw Hill.

**Reference Books:**

1. Antennas, Kraus, II edition, TMH
2. Computer Networks, Andrew S. Tanenbam, PHI