

**MAJOR BASED ELECTIVE I – RADIO AND TELEVISION**

**Unit – I : Radio Communications**

Radio waves – Frequency & Wavelength – Modulation – Propagation of radio waves – Ground, Sky and Space waves – Fading – Radio Broadcast – Transmission and Reception.

**Unit – II: Radio Transmission**

Classification of radio waves – Amplitude modulation – Frequency modulation – Radio transmitter – AM transmitter – Antennas (transmitting antenna), Basic ideas.

**Unit – III: Radio Reception**

Reception and detection of amplitude modulated waves – Function of a radio receiver – Characteristics of a receiver – Super heterodyne receiver – FM Broadcast receiver.

**Unit – IV: TV Transmission**

TV broadcasting system – scanning – Synchronization – Blanking – Video Signal – Television band and channels – Camera tubes – Image orthicon Vision.

**Unit - V : TV Reception**

TV receiver – Tuner – Picture section – Receiver sweep section – Sound section power supply section – Color Mixing principles in color TV.

**Text Books:**

1. Basic Television and Video Systems, B.Grob, McGraw Hill
2. Electronics and Radio Engineering, F.E. Terman, McGraw Hill

**Reference Book:**

1. Monochrome and Color Television, R.R. Gulari, Wiley Eastern Ltd.,