

# 34042 – Communication Engineering

## 1 NETWORKS, ANTENNA & PROPAGATION

### Part – A

1. What is an Equalizer?
2. Define Directivity of an Antenna?
3. List the types of Equalizer?
4. Define Filter?
5. Differentiate between Symmetrical & Asymmetrical Network?
6. What is an Antenna?

### Part – B

1. Define Propagation Constant?
2. Define Skip Distance?
3. Compare Symmetrical & Asymmetrical Networks?
4. List the types of Antennas?
5. Define Characteristic Impedance?
6. Define Amplitude Equalizer?

### Part – C

1. Derive the design equation of Symmetrical T – Attenuator?
2. Explain about the Sky wave propagation?
3. Explain about the different types of Filters?
4. Explain about dipole Arrays?
5. Derive the Iterative impedances of Symmetrical T – Network?
6. Explain about yagi Antenna & parabolic Antenna with a neat Sketch?

## 2. Introduction to Modulation & Amplitude Modulation

### Part – A

1. Draw the Spectrum of AM?
2. State the Advantages of SSB system?
3. Define Amplitude Modulation?
4. Define VSB Signals?
5. Define Modulation?

### Part – B

1. Derive the Expression for AM Signals?
2. Why AGC system is used in Radio Receivers?
3. Draw the Diagram for Amplitude Modulation Signals with Components?
4. Write down the expressions of Amplitude Modulation & modulation Index for the Same?
5. State the need for Modulation?
6. What is AM VSB System?

### Part – C

1. Explain about SSB Transmitter with Block Diagram?
2. Explain Superheterodyne AM Receiver with a neat Sketch?
3. With a neat Sketch explain High Level AM Transmitter and its waveform?
4. Explain about SSB Receiver with Block Diagram?

## 3. Frequency and Pulse Modulation

### Part – A

1. Define Frequency Modulation?
2. List the types of FM Transmitter?
3. What is Pulse Modulation?
4. Define AFC & Mention its uses?
5. Write Frequency Modulation & draw its Signal Diagram?

### Part – B

1. Draw the Waveform of Frequency Modulation Signals?
2. Draw the Signal Waveform of PAM?
3. Draw the Circuit diagram of DPCM transmitter?
4. Compare AM & FM?
5. What is Pulse Modulation?

## 34042 – Communication Engineering

### Part – C

1. Explain the working of Ratio detector?
2. Explain the generation, detection of PPM Signals?
3. Explain about the Stereophonic FM Transmitter with its Block Diagram?
4. Explain the generation & detection of PCM Signals?
5. Explain the generation, detection of PWM Signals?

### 4. Audio Systems

#### Part – A

1. What is Crossover Network?
2. What is Loud Speaker?
3. What is MP3 System?
4. What is tweeter?
5. What is Microphone?

#### Part – B

1. Explain Crossover Network?
2. List the Principles of Hi-Fi system?
3. Compare LED & LCD?
4. Write Short notes on tweeter?

#### Part – C

1. Explain the working of carbon & Condenser Microphone?
2. Explain the Construction & Working of Horn type Loudspeaker?
3. Explain the working of Dynamic Cone type Loudspeaker?
4. Explain the working of Stereophonic System?
5. Explain the Working of Piezo Electric & Velocity ribbon Microphone?

### 5. Video Systems

#### Part – A

1. What is Interlaced Scanning?
2. What is an Aspect Ratio?
3. What is the use of a Cable TV?
4. Define Aspect Ratio?

#### Part – B

1. What is Interlaced Scanning?
2. Draw a diagram for CCTV System?
3. State the elements of Composite Video Signals?
4. Expand & Define CCTV?

#### Part – C

1. Draw the Block Diagram of Monochrome TV transmitter and explain it?
2. Write Short notes on Cable TV & CCTV?
3. Explain the Working of LCD Display unit?
4. Explain the Working of Handycam?
5. Draw the Block Diagram of Monochrome TV Receiver and explain it?