



**DIPLOMA IN ELECTRONICS AND COMMUNICATION ENGINEERING**

**CENTRALIZED QUESTION BANK**

**1040234340- BASICS OF COMMUNICATION ENGINEERING**

**DIRECTORATE OF TECHNICAL  
EDUCATION GOVERNMENT OF  
TAMILNADU**

## DIPLOMA END SEMESTER / YEAR EXAMINATION – 2025

**Course :** Electronics and Communication Engineering

**Subject :** Basics of Communication Engineering

**QP Code :**1040234340

**Time :** 3 Hours

**Date :**

**Session:**

**Max Marks:**100

### Answer the following Questions

- 1 Construct and test the performance of LPF.
- 2 Construct and test the performance of HPF.
- 3 Construct LPF and plot its frequency response.
- 4 Construct HPF and plot its frequency response.
- 5 Implement a filter that allows all frequencies below a cutoff frequency and blocks all frequencies beyond it.
- 6 Implement a filter that allows all frequencies above a cutoff frequency and blocks all frequencies below it.
- 7 Construct and test the performance of BPF.
- 8 Construct BPF and plot its frequency response.
- 9 Implement a filter that allows all frequencies within a specified band of frequencies.
- 10 Construct and test the Performance of an AM Modulator circuit
- 11 Construct an AM modulator and plot its waveforms.
- 12 Implement a modulator where the amplitude of the carrier signal is varied in accordance with the amplitude of the message signal.
- 13 Build a circuit that can perform Amplitude Modulation and plot its waveforms.
- 14 Construct and Test the Performance of AM demodulation using envelope detector.
- 15 Construct a simple AM Demodulator (Envelope detector) and plot its waveform.
- 16 Construct and test the performance of FM Modulator.
- 17 Construct a Frequency Modulator circuit and plot its waveforms.
- 18 Build and test an FM Modulator circuit and plot the waveforms.
- 19 Construct and test the performance of an FM Demodulator circuit.
- 20 Construct an FM Demodulator circuit and plot its waveforms.
- 21 Build and test a Frequency Demodulator circuit and plot its waveforms.
- 22 Construct and test the performance of Sample and Hold circuit.
- 23 Construct a Sample and Hold circuit and plot its waveforms.
- 24 Build and test the Sample and Hold circuit and plot its waveforms.
- 25 Construct and test the performance of Pulse Width Modulator.
- 26 Implement a Pulse Width Modulation circuit and plot its waveforms.
- 27 Build and test a Pulse Width Modulation circuit and plot its waveforms.
- 28 Determine the directional characteristics of Moving Coil Microphone.
- 29 Obtain the directional characteristics of Moving Coil Microphone.
- 30 Implement the setup and obtain the directional characteristics of Moving Coil Microphone.
- 31 Determine the directional characteristics of Dynamic Cone Loudspeaker.
- 32 Obtain the directional characteristics of Dynamic Cone Loudspeaker.
- 33 Implement the setup and obtain the directional characteristics of Dynamic Cone Loudspeaker.

### Allocation of Marks

Sl.No	Description	Marks
1	Aim & Apparatus Required	5
2	Circuit Diagram / Model based Block Diagram	20
3	Connections / Simulation	25
4	Output / Result	10
5	Written Test	30
6	Viva Voce	10
	<b>Total Marks</b>	<b>100</b>