

**Department of Information Technology**

**LESSON PLAN**

**Subject: Basics of Communication**

**Subject code: ES-IT-202A**

**Session: 2022-23**

**Semester: IV**

<b>SN o</b>	<b>Topic</b>	<b>No. of Lectures required</b>	<b>CO Covered</b>	<b>Teaching Methodology</b>
1	<b>Unit-1:</b> Introduction to the subject, What is communication	1	CO1	Board
2	Elements of communication system	1		Board
3	Classification of signal, Concept of bandwidth,	1		Board
4	Sources of signal, Types of communication channels	1		Board
5	Classification of electronic communication system, Limitations of communication system	1		Board
6	Electromagnetic spectrum for communication	1		Board
7	Gain attenuation and Decibels of a system	1		Board
8	Noise, Classification of noise	1		Board
9	<b>Unit 2</b> What is modulation, Need for modulation	1	CO2	Board
10	Amplitude Modulation, modulation index	1		Board
11	Power relation in AM	1		Board
12	Generation of AM using collector modulation method	1		Board
13	Frequency Modulation, modulation index in FM	1		Board
14	Generation of FM using Armstrong method	1		Board
15	Comparison of AM and FM	1		Board
16	Numerical problems on AM& FM	1		Board
17	<b>Unit 3</b> AM demodulator using diode detector	1	CO3	Board
18	FM demodulation using slope detector method	1		Board
19	Tuned frequency receiver	1		Board
20	Superheterodyne receiver, RF amplifier, IF amplifier	1		Board
21	Image frequency, Double spotting	1		Board
22	Superheterodyne tracking	1		Board
23	<b>Unit 4:</b> Basic fiber optic system	1		Board

24	Advantages and disadvantages of optical fibers	1	CO4	Board
25	Classification of optical fiber	1		Board
26	Construction of fiber cable, Numerical aperture	1		Board
27	Losses in fiber optic system	1		Board
28	Major requirements for optical fiber emitter	1		Board
29	Advantages of LED as a source	1		Board
30	Performance Requirements of detectors	1		Board