

LESSON PLAN**Name of the Faculty** : Ms. Preeti Bhandari**Discipline** : Electronics & Communication Engineering**Semester** : 5th**Subject** : Digital Communication**Lesson Plan Duration:** 15 weeks (from 21 July, 2019 to 15 Nov, 2019)**Work Load (Lecture / Practical) per week (in hours):** Lecture-03, Practical-03 Hrs per Group

Week	Theory		Topic
	Lecture Day	Topic (Including assignment / test)	
1 st	1 st	Introduction about the subject/course and its syllabus	Introduction about the course laboratory and its syllabus.
	2 nd	Unit-1 -Introduction Basic block diagram of digital and data communication systems	Introduction about the course laboratory and its syllabus.
	3 rd	Comparison of Analog Communication system with Digital and data Communication systems	
2 nd	4 th	Unit-2 - Sampling theorem and its basic concept	Observe waveforms at input and output of pulse code modulator with CRO.
	5 th	Use of Sampling Theorem	Observe waveforms at input and output of pulse code modulator with CRO.
	6 th	Introduction to PAM, PPM, PWM	
3 rd	7 th	Quantization and error of Quantization	Observe waveforms at input and output of pulse code modulator with CRO contd....
	8 th	PCM, its advantages and disadvantages	Observe waveforms at input and output of pulse code modulator with CRO contd...
	9 th	DPCM, its advantage and disadvantage	
4 th	10 th	DELTA Modulation & Revision	Transmission of data using MODEM.
	11 th	ADAPTIVE DELTA Modulation.	Transmission of data using MODEM.
	12 th	Concept of COMPANDING	
5 th	13 th	Frequency hopping spread spectrum technique Home Assignment	Transmission of data using MODEM contd...
	14 th	Class test/Quiz	Transmission of data using MODEM contd...
	15 th	Unit-3 -Digital Modulation Techniques	
6 th	16 th	Basic block diagram and principle of working of Amplitude shift keying (ASK)	Revision & Viva
	17 th	Interrupted continuous wave (ICW),	Revision & Viva
	18 th	Two tone modulation	
7 th	19 th	Frequency Shift keying (FSK)	Observe wave forms at input and output of PSK modulator.

	20 th	Phase shift keying (PSK)	Observe wave forms at input and output of PSK modulator.
	21 st	Quadrature Phase Shift Keying (QPSK) & Revision	
8 th	22 nd	Unit-4 Characteristics/working of data transmission circuits	Observe wave forms at input and output of PSK modulator contd....
	23 rd	Data transmission circuits contd...	Group 2: Exp. 3-
	24 th	Data transmission circuits contd...	
9 th	25 th	Bandwidth requirements	Revision & Viva
	26 th	Data transmission speeds	Revision & Viva
	27 th	Noise, cross talk	
10 th	28 th	Echo suppressors Home Assignment	Observe wave forms at input and output of QPSK modulator.
	29 th	Distortion	Observe wave forms at input and output of QPSK modulator.
	30 th	Equalizers & Revision	
11 th	31 st	Class test/Quiz	Observe wave forms at input and output of QPSK modulator contd..
	32 nd	Unit 5	Observe wave forms at input and output of QPSK modulator contd...
	33 rd	Need and function of modems Mode of modems operation, low speed	
12 th	34 th	Medium speed and high speed modems	Revision & Viva
	35 th	Modem interconnection	Revision & Viva
	36 th	Modem data transmission speed	
13 th	37 th	Modem modulation methods	Observe the working of space and time switching circuit.
	38 th	Unit 6 Switching	Observe the working of space and time switching circuit contd...
	39 th	Space switching	
14 th	40 th	Time switching	Observe the working of space and time switching circuit contd...
	41 st	Working principle of STS switches	Observe the working of space and time switching circuit.
	42 nd	Working principle of TST switches	
15 th	43 rd	Revision & Home Assignment	Internal Viva
	44 th	Class Test/Quiz	Internal Viva

