Government Polytechnic, Manesar

Lesson Plan (Odd Semester)

Name of the Faculty	: Mrs. Reetu
Discipline	: Computer Engineering
Department	: Computer Engineering
Semester	: 3rd
Subject	: Data Communication
Lesson Plan Duration	: 15 weeks (from July, 2018 to Dec., 2018)

****Work load (Lecture / Practical) per week(in hours): Lectures-04, practicals -Nil**

		Theory	Practical	
	Lect.	Topic (Including assignment / test)	Pract	Topic
Week	day		. Day	
1st	1st	1. Introduction : Data Communication- Components	N/A	N/A
	2nd	Data representation	N/A	N/A
	3rd	Data flow Networks	N/A	N/A
	4th	Distributed processing	N/A	N/A
2nd	1st	Network criteria	N/A	N/A
	2nd	Physical structures Network Category- LAN	N/A	N/A
	3rd	WAN, MAN	N/A	N/A
	4th	2. Data and Signals : Analog and Digital data	N/A	N/A
3rd	1st	Analog and digital signals	N/A	N/A
	2nd	Periodic and Non Periodic signals	N/A	N/A
	3rd	periodic analog signals	N/A	N/A
	4th	Digital Signals- Bit rate, Bit length	N/A	N/A
4th	1st	Digital signal as a composite analog signal	N/A	N/A
	2nd	Transmission of digital signals	N/A	N/A
	3rd	Transmission Impairment- Attenuation, Distortion and noise	N/A	N/A
	4th	Performance- bandwidth, throughput	N/A	N/A
5th	1st	Latency, jitter	N/A	N/A
	2nd	Revision	N/A	N/A
	3rd	3. Digital and Analog Transmission : Analog transmission- Digital to Analog Conversion- ASK	N/A	N/A
	4th	PSK, FSK	N/A	N/A
6th	1st	Analog to Analog Conversion- AM	N/A	N/A
	2nd	PM,FM(No mathematical treatment)	N/A	N/A
	3rd	Digital transmission- Digital to digital conversion- coding and schemes	N/A	N/A
	4th	Digital transmission- Digital to digital conversion- coding and schemes	N/A	N/A
7th	1st	Analog to digital conversion- PCM	N/A	N/A
	2nd	Delta Modulation (DM)	N/A	N/A
	3rd	Transmission modes- Serial transmission	N/A	N/A
	4th	Transmission modes- parallel transmission	N/A	N/A

8th	1st	Revision	N/A	N/A
	2nd	Revision	N/A	N/A
	3rd	4. Multiplexing – FDM	N/A	N/A
	4th	FDM	N/A	N/A
9th	1st	WDM	N/A	N/A
	2nd	WDM	N/A	N/A
	3rd	TDM	N/A	N/A
	4th	TDM	N/A	N/A
10th	1st	Revision	N/A	N/A
	2nd	Revision	N/A	N/A
	3rd	5. Transmission media : Guided media	N/A	N/A
	4th	Twisted pair cable	N/A	N/A
11th	1st	Twisted pair cable	N/A	N/A
	2nd	Co-axial cable	N/A	N/A
	3rd	Co-axial cable	N/A	N/A
	4th	Fibre optics cable	N/A	N/A
12th	1st	Fibre optics cable	N/A	N/A
	2nd	Unguided Media	N/A	N/A
	3rd	Radio wave	N/A	N/A
	4th	Microwave	N/A	N/A
13th	1st	Infrared	N/A	N/A
	2nd	Revision	N/A	N/A
	3rd	6. Error Detection and Correction : Types of Errors	N/A	N/A
	4th	Redundancy	N/A	N/A
14th	1st	Detection v/s correction	N/A	N/A
	2nd	Forward error correction	N/A	N/A
	3rd	Forward error correction v/s retransmission.	N/A	N/A
	4th	Error detection through Parity bit	N/A	N/A
15th	1st	Block parity to detect double errors and correct single errors.	N/A	N/A
	2nd	General principles of error detection and correction using cyclic redundancy check	N/A	N/A
	3rd	Revision	N/A	N/A
	4th	Revision	N/A	N/A

(Signature of the teacher concerned with date)