

Govt. Polytechnic, Manesar (Gurgaon)

Lesson Plan

Name of the Faculty : - MS. Manju

Discipline : - Electronics & Communication Engg.

Semester : - 6th

Subject : - Wireless and Mobile Communication

Lesson Plan Duration : - 15 weeks (from January 2019 to April 2019)

Work Load (Lecture/Practical) per Week (In Hours):- Lecture-04, Practiac-06

WEEK	THEORY		PRACTICAL	
	LECTURE DAY	TOPIC (including assignment/test)	PRACTICAL DAY	TOPIC
1 st	1 st	Wireless Communication Basics	1 st Group-1	Study about practical of wireless and mobile communication
	2 nd	Advantages of wireless communication		
	3 rd	Electromagnetic waves	2 nd Group-2	Study about practical of wireless and mobile communication
	4 th	Frequency Spectrum used		
2 nd	5 th	Paging system	1 st Group-1	Study the features, specification and working of cellular mobile
	6 th	Paging system contd.		
	7 th	Cordless Telephone System	2 nd Group-2	Study the features, specification and working of cellular mobile
	8 th	Cellular Telephone System		
3 rd	9 th	Cellular Telephone System contd.	1 st Group-1	Signal strength measurement of various points from a transmitting antenna/cordless phone
	10 th	Comparison of above wireless communication systems		
	11 th	Cellular telephone system Introduction to First Generation	2 nd Group-2	Signal strength measurement of various

				points from a transmitting antenna/cordless phone
	12 th	Introduction to Second Generation		
4 th	13 th	Introduction to Third Generation	1 st Group-1	Revision
	14 th	Introduction to Fourth Generation of cellular telephone system Assignment		
	15 th	Test	2 nd Group-2	Revision
	16 th	Cellular Concept Cell area		
5 th	17 th	Capacity of cell	1 st Group-1	Visit of a Mobile Switching Centre(MSC) in the nearest M.S. facility provider
	18 th	Frequency Response		
	19 th	Co-channel Interference	2 nd Group-2	Visit of a Mobile Switching Centre(MSC) in the nearest M.S. facility provider
	20 th	Adjacent channel Interference		
6 th	21 th	Power Control for reducing Interference	1 st Group-1	Demonstration of Base Trans Receiver(BTS) with nearby cellular tower
	22 th	Improving coverage and capacity in cellular system Cell Splitting		
	23 th	Cell Splitting contd.	2 nd Group-2	Demonstration of Base Trans Receiver(BTS) with nearby cellular tower
	24 th	Sectoring		
7 th	25 th	Repeater for Range Extension	1 st Group-1	Observing call processing of GSM trainer Kit
	26 th	Multiple Access Techniques for Wireless Communication Introduction to Multiple Accesses		
	27 th	Introduction to Multiple Accesses contd.	2 nd Group-2	Observing call processing of GSM trainer Kit
	28 th	Frequency Division Multiple Access(FDMA)		
8 th	29 th	Frequency Division Multiple Access contd.	1 st Group-1	Observing call processing of CDMA trainer Kit
	30 th	Time Division Multiple Access(TDMA)		
	31 th	Time Division Multiple Access CONTD.	2 nd Group-2	Observing call processing of CDMA trainer Kit

	32 th	Code Division Multiple Access (CDMA)		
9 th	33 th	Code Division Multiple Access (CDMA) CONTD.	1 st Group-1	Revision
	34 th	Spread Spectrum Multiple Access (SSMA)		
	35 th	Spread Spectrum Multiple Access (SSMA) contd.	2 nd Group-2	Revision
	36 th	Frequency Hopping spread Spectrum (FHSS)		
10 th	37 th	Frequency Hopping spread Spectrum (FHSS) contd.	1 st Group-1	Pairing of two devices using Bluetooth
	38 th	Frequency Hopping spread Spectrum (FHSS) contd.		
	39 th	Comparison of FDMA/TDMA/CDMA	2 nd Group-2	Pairing of two devices using Bluetooth
	40 th	Assignment work		
11 th	41 th	Test	1 st Group-1	Data transfer using WI-FI
	42 th	Mobile Communication Systems Introduction of Global Systems for Mobile Communication (GSM)		
	43 th	GSM contd.	2 nd Group-2	Data transfer using WI-FI
	44 th	GSM and its architecture		
12 th	45 th	Introduction of CDMA System	1 st Group-1	Revision
	46 th	CDMA System contd.		
	47 th	comparison of CDMA and GSM Systems	2 nd Group-2	Revision
	48 th	Introduction of GPRS Systems		
13 th	49 th	GPRS Systems contd.	1 st Group-1	Revision
	50 th	Introduction of GPS Systems		
	51 th	GPS Systems contd.	2 nd Group-2	Revision
	52 th	Comparison of GPS and GPRS system		
14 th	53 th	Introduction to Blue tooth	1 st Group-1	Revision
	54 th	Introduction to Wi-Fi		
	55 th	Digital and Data Communication Basic block diagram of digital and data communication system	2 nd Group-2	
	56 th	Digital and Data Communication Basic block diagram of digital and data communication system contd.		Revision
15 th	57 th	Data analog communication systems	1 st Group-1	Viva

	58 th	Digital and Data Communication comparison with data analog communication systems		
	59 th	Assignment	2 nd Group-2	Viva
	60 th	Test		