

# Lesson Plan

**Name of the Faculty** : MANJU  
**Discipline** : Electronics and Communication Engg.  
**Semester** : 5th  
**Subject** : WIRELESS AND MOBILE COMMUNICATION  
**Lesson Plan Duration** : 30July 2026 – 23 Nov. 2026  
**Work Load (Lecture / Practical) per week (in hours):** Lecture-02, Practical-04 Hrs per Group

Week	Theory		Practical	
	Lecture day	Topic (including assignment/ test)	Practical/ Hrs	Experiment
1 <sup>st</sup>	1	Introduction about Subject	GP-1	Introduction about practical wireless and mobile communication
	2	<b>Unit-I</b> : Wireless Communication Basics Advantages of wireless communication	GP-2	Introduction about practical wireless and mobile communication
2 <sup>nd</sup>	3	Electromagnetic waves Frequency Spectrum used	GP-1	Study the features, specification and working of cellular mobile
	4	Cellular Network System	GP-2	Study the features, specification and working Of cellular mobile
3 <sup>rd</sup>	5	Introduction to propagation consideration Range and fading	GP-1	measurement of Signal strength at various points from a transmitting antenna
	6	<b>Unit-2:</b> Cellular Concept Introduction 2G ,cell area, Cell Site Structure	GP-2	measurement of Signal strength at various points from a transmitting antenna
4 <sup>th</sup>	7	Capacity of cell, Concept of frequency reuse	GP-1	Demonstration of Base TransReceiver(BTS) with nearby cellular tower
	8	Co-channel and Adjacent channel Interference	GP-2	Demonstration of Base TransReceiver(BTS) with nearby cellular tower
5 <sup>th</sup>	9	Fundamental of cell splitting and sectoring <b>Assignment-1</b>	GP-1	Observing call processing ofGSM trainer Kit
	10	<b>1st Sessional Test</b>	GP-2	Observing call processing ofGSM trainer Kit
6 <sup>th</sup>	11	<b>Unit-III:</b> Multiple Access Techniques for Wireless communication Introduction to Multiple Accesses. Frequency Division Multiple Access (FDMA)	GP-1	Visit of a Mobile Switching Centre
	12	Time Division Multiple Access (TDMA)	GP-2	Visit of a Mobile Switching Centre
7 <sup>th</sup>	13	Code Division Multiple Access (CDMA)	GP-1	Troubleshooting of a GSM mobile phones
	14	CDMA,WCDMA	GP-2	Troubleshooting of a GSM mobile phones

8 <sup>th</sup>	15	Introduction to OFDMA	GP-1	Troubleshooting of a GSM mobile phone
	16	<b>UNIT IV</b> :Mobile communication system Introduction of global system for mobile communication(GSM) and its architecture	GP-2	Troubleshooting of a GSM mobile phones
9 <sup>th</sup>	17	Introduction of GPRS, EDGE	GP-1	Study and demonstration of AT Commands of GSM System using trainer kit
	18	Bluetooth and Wi-Fi	GP-2	Study and demonstration of AT Commands of GSM System using trainer kit
10 <sup>th</sup>	19	REVISION <b>Assignment-2</b>	GP-1	REVISION
	20	<b>2nd Sessional Test</b>	GP-2	REVISION
11 <sup>th</sup>	21	<b>UNIT-V Introduction to 3G,4G and 5G</b> Introduction to architecture and features of UMTS	GP-1	Study of LTE mobile communication using trainer kit
	22	Feature and Architecture of LTE(long term evolution)	GP-2	Study of LTE mobile communication using trainer kit
12 <sup>th</sup>	23	Introduction to 5G	GP-1	Study and demonstration of AT Commands of LTE using trainer kit
	24	concept of New radio technology	GP-2	Study and demonstration of AT Commands of LTE using trainer kit
13 <sup>th</sup>	25	Comparison of 4G with 5G	GP-1	REVISION
	26	REVISION <b>Assignment-3</b>	GP-2	REVISION
14 <sup>th</sup>	27	REVISION	GP-1	Revision & Viva
	28	Revision	GP-2	Revision & Viva
15 <sup>th</sup>	29	REVISION	GP-1	Revision & Viva
	30	<b>3rd Sessional Test</b>	GP-2	Revision & Viva