

Government Polytechnic Sundernagar					
Lesson Plan for the Session Jan,2025-June,2025					
Subject Name :Open Elective – II (Satellite and Cellular Communication)			Semester: 6th Computer	Subject Teacher: Himani Vaidya	
Sr no	Mon th	Week	Date	Name of Chapter	Contents to be taught
1	January	5	27th ,28th, 29th, 31st	Unit1: Introduction to Satellite Communication	1.1 Evolution and growth of communication satellite. Need for satellite communication. 1.2 Advantages of satellite communication 1.3 Active & Passive satellite 1.4 Orbital aspects and their effects on satellite communications.
2	Feberary	1	3rd,4th, 5th, 7th,		
3		2	10th,11th, 14th,		
4		3	17th,18th, 19th, 21st	Unit 2: Electromagnetic Spectrum	2.1 INTELSAT Series, INSAT, VSAT 2.2 Mobile satellite services: GSM, GPS, INMARSAT, LEO, MEO 2.3 Satellite Navigational System. GPS Position Location Principles 2.4 Differential GPS, Direct Broadcast satellites (DBS/DTH). 1st Class Test
5	March	4	24th, 25th, 28th		
6		1	3rd, 4th, 5th, 7th,		
7		2	10th,11th, 12th,		
8		3	17th,18th, 19th, 21st		
9		4	24th,25th ,26th, 28th		3.1 Introduction of cellular communication, Formation of Cell, frequency reuse concept. 3.2. Classification of Cells, Umbrella cell concept. 3.3 Channel assignment strategies. 3.4 Handoff Hard and Soft handoff
10		1	1st, 2nd, 4th		

11	April	2	7th,8th, 9th, 11th,	Unit 3: Cellular Communication Concepts	3.4 HANDOFF, Hard and Soft handoff, Handoff strategies.
12		3	16th		3.5 Interference, Co channel and Adjacent channel interference.
13		4	21st,22nd, 23rd , 25th		3.6 Estimation of cellular system capacity.
14		5	28th, 30th		3.7 Cellular system capacity improving techniques; Cell splitting, Sectoring, Microcell zone concept. 2nd Class Test
15	May	1	2nd	Unit 4: Evolution of Communication Generations	4.1 2.5G TDMA evolution path, GPRS technology,
16		2	5th, 6th, 7th,9th		4.2 EDGE technology, 2.5G CDMA technology, 4.3 Need of 3G and 4G mobile networks,
17		2	13th, 14th, 16th		4.4 Introduction to CDMA 2000 technology. Comparison between GSM and CDMA technologies.
18		3	,19th,20th, 21st , 23rd		4.5 LTE-Advance systems, 4G & 5G Mobile techniques and Emerging technologies.
19		4	26th, 27th, 28th		House Test

Himani Vaidya
Subject Teacher

