

Code: 20EC2702A

**IV B.Tech - I Semester –Supplementary Examinations
OCTOBER 2024**

**TELECOMMUNICATIONS
(Common for ALL BRANCHES)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

<u>UNIT – I</u>			
1.	a)	Describe the evolution of telecommunication systems with neat example.	7 M
	b)	Explain about Internet telephony.	7 M
OR			
2.	a)	Describe the standards of Telecommunication systems.	7 M
	b)	Explain the working principle of facsimile.	7 M
<u>UNIT – II</u>			
3.	a)	Distinguish between 2G and 3G wireless standards.	7 M
	b)	Discuss the basic principle of operation of cellular mobile system and give the brief overview of cellular industry.	7 M
OR			

4.	a)	List the salient features of 4G LTE cellular standards.	7 M
	b)	Differentiate the generations in the cordless phones and cellular phones.	7 M
<u>UNIT-III</u>			
5.	a)	Compare the advantages of PAN's, Bluetooth and Zigbee wireless standards.	7 M
	b)	Discuss about Infrared wireless technology and list the applications for it.	7 M
OR			
6.	a)	Explain advanced Wireless Metropolitan Area networks.	7 M
	b)	Describe the features of Ultra Wide Band advanced wireless and various WLAN standards.	7 M
<u>UNIT – IV</u>			
7.	a)	Describe the block diagram of Optical Communication Systems and list the applications.	7 M
	b)	List the Fiber optic cables and describe the advantages and disadvantages of fiber optic cables.	7 M
OR			
8.	a)	Explain the working principle of optical transmitters and receivers in optical fiber communication system.	7 M
	b)	List the applications of Optical fiber communication systems and describe the optical principles	7 M

UNIT – V

9.	a)	Explain the orbital effects in satellite communications system performance.	7 M
	b)	Briefly discuss about ground stations.	7 M

OR

10.	a)	Describe the concept of Global Navigation Satellite Systems.	7 M
	b)	Explain the Altitude and orbital control system.	7 M