

Code: 20EC2702A

IV B.Tech - I Semester – Regular Examinations - DECEMBER 2023

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

			BL	CO	Max. Marks
UNIT-I					
1	a)	Describe the evaluation of telecommunication systems.	L2	CO1- CO4	7 M
	b)	Discuss the working principle of telecommunication system.	L2	CO1- CO4	7 M
OR					
2	a)	Explain about the telephony services transmitted over traditional analogue landlines.	L2	CO1- CO4	7 M
	b)	Explain about the telephonic transmission of scanned printed material.	L2	CO1- CO4	7 M
UNIT-II					
3	a)	Brief the overview of cellular industry.	L2	CO1- CO4	7 M
	b)	Compare the features of 2G and 3G digital cell phone systems.	L4	CO1- CO4	7 M

OR					
4	a)	Differentiate the generations in the cordless phones and cellular phones.	L4	CO1- CO4	7 M
	b)	Outline the features of 4G cellular systems.	L2	CO1- CO4	7 M
UNIT-III					
5	a)	Outline the WLAN protocol architecture.	L2	CO1- CO4	7 M
	b)	Discuss about Wireless Metropolitan Area networks.	L2	CO1- CO4	7 M
OR					
6	a)	Explain the applications of wireless networks.	L2	CO1- CO4	7 M
	b)	Discuss about Infrared wireless technology.	L2	CO1- CO4	7 M
UNIT-IV					
7	a)	Demonstrate the structure of fiber optic cables.	L3	CO1- CO4	7 M
	b)	Explain the applications of fiber optics.	L2	CO1- CO4	7 M
OR					
8	a)	Illustrate the working principle of fiber optic transmitter.	L3	CO1- CO4	7 M
	b)	Discuss the sources of errors in optical receivers.	L2	CO1- CO4	7 M

UNIT-V

9	a)	Summarize the Orbital effects in Satellite communication system performance.	L2	CO1- CO4	7 M
	b)	Explain the GPS working principle and its segments.	L2	CO1- CO4	7 M

OR

10	a)	Explain the Attitude and orbital control system.	L2	CO1- CO4	7 M
	b)	Describe the evolution of Global navigation satellite systems.	L2	CO1- CO4	7 M