

GYANMANJARI INNOVATIVE UNIVERSITY

GYANMANJARI INSTITUTE OF TECHNOLOGY
B.Tech.-Mid Semester Examination (MSE)-W2025

Enrollment No.: _____

Subject Code: BETIT07390

Subject Name: WIRELESS COMMUNICATIONS

Time: 02:30 PM to 04:30 PM

Date: 08/09/2025

Semester: VII

Total Marks: 60

Instructions:

1. Question No. 1 is compulsory.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		Marks
Q.1	(a) Define the channel and co-channel interference factor reduction	05
	(b) Derive the free space propagation loss.	05
	(c) Differentiate: Time Division Multiple Access (TDMA), Frequency Division Multiple Access (FDMA).	10
Q.2	(a) Define cellular network. Explain it with its architecture.	05
	(b) Write a short note on OFDM.	05
	OR	
	(b) List out various 2G, & 3G wireless cellular network technologies.	05
Q.3	(c) Compare types of different propagation models.	10
	OR	
Q.3	(c) Explain Piconet and Scatternet.	10
	(a) Define WLAN. Also explain it with its topology.	05
	(b) Define fading. Explain it with its types.	05
Q.3	(c) Explain the Evolution of Mobile Communication.	10
	OR	
	(a) Describe the Bluetooth technology and its applications.	05
Q.3	(b) Define handoff in cellular communication.	05
	(c) Compare and contrast the path-loss characteristics of Non- Line-of-Sight (NLOS) and Line-of-Sight (LOS) wireless communication systems.	10