R20 Regulation *Subject code: 3E8DL*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VIII Semester Supplementary Examinations, May 2026

WIRELESS COMMUNICATIONS AND NETWORKS

(ECE)

Maximum Marks: 70 Date: 08.05.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	Bloom Tx
1	What is Paging systems?	2M	CO1	BT1
2	List the advantages of WLAN.	2M	CO1	BT1
3	What is intersystem handoff?	2M	CO2	BT1
4	Define Co-channel Interference.	2M	CO2	BT2
5	What is PSTN?	2M	CO3	BT1
6	What is X.25 protocol?	2M	CO3	BT1
7	What are the major issues in WLAN?	2M	CO4	BT1
8	Define Spread Spectrum LANs.	2M	CO4	BT2
9	What is adaption protocol?	2M	CO5	BT2
10	Write a short notes on IEEE 802.15.	2M	CO5	BT1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
11	a) Explain in detail evolution for 2.5G TDMA standards. b) Discuss about paging systems.	5M 5M	CO1	BT2
	OR			
12	a) Briefly discuss about WLL and LMDS. b) Explain in detail second generation cellular networks.	5M 5M	CO1	BT2
13	a) Explain in detail handoff strategies. b) Derive the frequency reuse factor of a cellular system	4M 6M	CO2	BT3
	OR			
14	Compare FDMA, TDMA and CDMA	10M	CO2	BT3
15	Illustrate about Network services and Message transfer parts of SS7.	10M	CO3	BT3

	OR			
16	Explain the types of bearer services in ISDN in terms of speed of transmission, type of channel, type of service.	10M	CO3	BT3
17	Explain infrared LAN in detail and mention its advantages and disadvantages.	10M	CO4	BT3
	OR			
18	Describe the architecture of IEEE 802.11 With neat diagram.	10M	CO4	BT3
19	Explain the layered architecture of Bluetooth with neat diagram.	10M	CO5	BT2
	OR			
20	Describe about the IEEE 802.15 with neat diagram.	10M	CO5	BT2