

Code No: **R15A0432****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

IV B.Tech - II Semester Supplementary Examinations, April 2023**Wireless Communications & Networks**

(ECE)

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Time: 3 hours**Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

PART-A (25 Marks)

- 1). a Write some examples for wireless communication system. [2M]
- b Write the features of cordless telephone systems [3M]
- c Define large scale propagation model [2M]
- d Discuss the objectives of Okumura model [3M]
- e What is Doppler spread? [2M]
- f Discuss about Ericsson Multiple Breakpoint Model. [3M]
- g What are enhancements in IEEE 802.15 [2M]
- h Explain Advantages & Disadvantages of WLAN [3M]
- i Write note on data oriented CDPD network. [2M]
- j Explain briefly about Wireless ATM [3M]

PART-B (50 MARKS)**SECTION-I**

- 2 Explain briefly about WLL and LMDS. [10M]
- OR
- 3 Write a short note on following:
 - i) paging systems [5M]
 - ii) Personal Area Network [5M]

SECTION-II

- 4 Explain knife-edge diffraction model and multiple knife-edge diffraction. [10M]
- OR
- 5 Discuss the concept of reflection from dielectrics and Brewster angle. [10M]

SECTION-III

- 6 Explain briefly about Two-ray Rayleigh fading model? [10M]
- OR
- 7 Explain briefly about parameters of mobile multipath channels. [10M]

SECTION-IV

8 Describe the IEEE 802.15 logical link control and adaptation protocol. **[10M]**

OR

9 Illustrate IEEE 802.11 architecture and services. **[10M]**

SECTION-V

10 Discuss in detail about mobile data networks. **[10M]**

OR

11 Explain the functioning of GSM with basic architecture. **[10M]**
