Code No: **R15A0419**

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MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
(Autonomous Institution – UGC, Govt. of India)
III B.Tech II Semester Supplementary Examinations, April 2023
Data Communications
(ECE)

Roll No										

Time: 3 hours   **Max. Marks: 75**

Note: This question paper contains two parts A and B
Part A is compulsory which carriers 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.
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PART-A (25 Marks)

1). a	List the four fundamental characteristics of Data Communication system	**[2M]**
b	How is '0' and '1' represented in binary phase shift keying technique?	**[3M]**
c	Classify transmission medium that plays an important role between transmitter and receiver	**[2M]**
d	List the Characteristics of Electromagnetic waves	**[3M]**
e	What are the three modes of terrestrial propagation of electromagnetic waves?	**[2M]**
f	What are the optical properties of radio waves?	**[3M]**
g	What is a bar code and how it helps in day to days communication?	**[2M]**
h	What error occur in data transmission?	**[3M]**
i	What is a Cable modem	**[2M]**
j	Draw the frame of character oriented protocol?	**[3M]**

PART-B (50 MARKS)
SECTION-I

2	Explain the Standards Organisations for Data & Network Communication	**[10M]**

OR

3	Explain amplitude modulation and angle modulation	**[10M]**

SECTION-II

4	Classify the different transmission lines and explain any two	**[10M]**

OR

5	Explain with the help of a block diagram the Time- Division Multiplexing	**[10M]**

SECTION-III

6	What is a radio wave? What are the optical properties of radio waves? Explain all the details of how they relate to radio wave propagation?	**[10M]**

OR

7	With a block diagram, Explain the Personal Communications Satellite System.	**[10M]**

SECTION-IV

8	List the two common codes used in telegraphic systems and Explain any one code?	**[10M]**

OR

9   What are the various error detection techniques to check the redundancy? Explain   **[10M]**
any two.

SECTION-V

10   Discuss in detail the DSL modems   **[10M]**

OR

11   Explain the protocol based in synchronous, bit-oriented operation and developed   **[10M]**
by IBM

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