

Roll No. :

Total No. of Questions : 9] [Total No. of Pages : 3

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**M.Tech. (ECE) 1st Semester
Examination, March-2021
(CBCS Scheme)**

DATA COMMUNICATION NETWORKS
Paper-MTECE21C5

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note :- Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

1. (a) Differentiate amongst LAN, WAN and MAN.
- (b) What is Transmission Impairments ?
- (c) What is TDM ? Explain.

(d) What is Topology ? Define tree topology.

(e) What is Inter Networking ?

Unit-I

2. What is error detection and correction ? Describe various error detection techniques.

3. (a) Differentiate between Asynchronous and Synchronous Transmission.

(b) What is Data encoding ? Discuss the various encoding techniques.

Unit-II

4. (a) What is Multiplexing ? Explain frequency division multiplexing.

(b) Differentiate between Bit oriented and character oriented protocol.

5. Explain the following :

(a) Link Configuration

(b) Flow Control

Unit-III

6. Explain the following :

(a) Token Ring

(b) FDDI

7. (a) Explain Message and Circuit switching.

(b) What is CSMA Protocol ? Discuss the role of CSMA/CD.

Unit-IV

8. What is OSI Reference Model ? Explain function of each layer. How is it different from TCP/IP model ?

9. What is ISDN ? Discuss ISDN Architecture.