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

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

**DATA COMMUNICATION AND
COMPUTER NETWORKS
Paper-MTCSE21C1**

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. Write short notes on the following :

- (a) Analog communication
- (b) RARP
- (c) UDP
- (d) VPN

20

Unit-I

20 each

2. Describe ISO-OSI reference model with proper diagram.
3. Explain the following :
 - (i) Packet, circuit and message switching
 - (ii) CSMA

Unit-II

20 each

4. Describe the following :
 - (i) IPv6
 - (ii) Subnets and Supernetting
5. Explain the following routing algorithms :
 - (i) Distance vector routing
 - (ii) Hierarchical routing

Unit-III

20 each

6. Define TCP Protocol. Explain its services and features in detail.
7. Explain the following :
 - (i) DHCP operation
 - (ii) Configuration FTP

Unit-IV

8. (a) Give a brief discription about firewalls.
(b) Explain in detail about Digital Signatures. 10,10
9. Describe the following :
 - (i) Quality of services
 - (ii) Transport layer security 20