

Roll No. ....

**22638**

**M. Tech. 1st Semester (CSE)**

**CBCS Scheme**

**Examination – January, 2023**

**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 following : 20
- (a) ALOHA
  - (b) ICMP
  - (c) POP
  - (d) VPN

**UNIT – I**

2. Define data communication. Explain serial and parallel communication in detail. 20

3. Describe ISO-OSI reference model in detail with proper diagram. 20

**UNIT – II**

4. Explain the following : 20  
(i) CIDR and CIDR Addressing  
(ii) Subnet and supernetting
5. Describe the following : 20  
(i) Hierarchical Routing  
(ii) BGP

**UNIT – III**

6. Define transport layer and explain the following : 20  
(i) TCP Protocol  
(ii) Connection Management
7. Explain the following : 20  
(i) MIME  
(ii) DHCP

**UNIT – IV**

8. (i) What is Cipher ? Explain in detail about it. 10  
(ii) What do you mean by Quality of Service ? Explain. 10
9. (i) What do you mean by quality of service ? Explain. 10  
(ii) Give a complete description about Digital Signatures. 10