

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA– SEMESTER –V EXAMINATION –SUMMER-2019

Subject Code:650010

Date: 10-05-2019

Subject Name: Advanced Networking

Time:10.30 am to 1.00 pm

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make Suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks**

- Q.1 (a)** (1) List Transport and Network Layer Protocols. **07**
(2) What is the use of FLOW LABEL in IPv6?
(3) Define the term 'Masking' in context of IP address.
(4) What is TLS?
(5) Define LAN, MAN & WAN.
(6) State the full form of DNS.
(7) What is POP3?
- (b)** (1) Disuses in brief: ARP, RARP & proxy-ARP. **03**
(2) Does the pseudo header make any sense for UDP? Why? Discuss your answer. **04**
- Q.2 (a)** Which fields in IP message format are used in fragmentation? Discuss each one of them. **07**
(b) Discuss congestion reporting mechanism used by ICMP with message format. **07**
- OR**
- (b)** Differentiate OSI vs. TCP/IP model. **07**
- Q.3 (a)** List any three properties of the reliable delivery service & Discuss TCP in detail. **07**
(b) Discuss the usefulness of NAT. Also discuss port mapped NAT. **07**
- OR**
- Q.3 (a)** Draw the state diagram of DHCP & explain lease renewal process of IP address. **07**
(b) Differentiate flat vs. hierarchical namespace. List and explain DNS resource records. **07**
- Q.4 (a)** Compare POP3 and IMAP. Which one is better? Justify your answer. **07**
(b) Discuss FTP process model. Also describe FTP's Secure File Transfer mechanisms. **07**
- OR**
- Q.4 (a)** List any three TELNET commands and explain them. **07**
(b) Discuss SMTP & MIME. **07**
- Q.5 (a)** Differentiate IPv4 vs. IPV6. Also discuss the 'Base Header' of IPV6. **07**
(b) Write a note on HTTP. **07**
- OR**
- Q.5 (a)** What is Firewall? Differentiate Packet and Application level Firewall. **07**
(b) Discuss the use & effect of caching in context of static and dynamic HTML. **07**
