

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER – 5 • EXAMINATION – SUMMER 2018

Subject Code: 650010

Date: 09-May-2018

Subject Name: Advanced Networking (AN)

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) Answer the following questions: 07
1. What is the purpose of the PROTOCOL field in the IPv4 protocol header?
 2. What is the importance of doing Window Advertisement?
 3. What is the difference between ARP and RARP?
 4. What is the use of Loopback Address in IPv4?
 5. What is the major difference between Connection Oriented and Connection Less Delivery at Transport Layer?
 6. Give the Full form of MIME.
 7. Write a full form of TTL and why it is required in IPv4 packet?
- (b) Answer the Following Questions:
1. Compare Classfull and Classless Addressing Scheme. 04
 2. Explain Unicast, Multicast and Broadcast with example. 03
- Q.2 (a) Explain IPv4 Forwarding Algorithm and Compare Direct and Indirect Delivery of packet. 07
- (b) Explain ICMP in detail with any three message formats and its explanation. 07
- OR**
- (b) An organization is granted the block 130.34.12.64/26 and it needs to create 4 subnetworks, each with equal number of hosts. Provide subnetting details for the same. 07
- Q.3 (a) Explain Proxy ARP with its advantages and disadvantages. 07
- (b) What are the features of FTP? Explain FTP process model. 07
- OR**
- Q.3 (a) Explain mail forwarding process with SMTP. 07
- (b) Explain Anonymous FTP and following terms: SSL-FTP, SFTP and SCP 07
- Q.4 (a) Explain characteristics of HTTP. 07
- (b) Explain DHCP in detail 07
- OR**
- Q.4 (a) Explain HTTP persistent connection with its advantages and disadvantages. 07
- (b) Write a short note on Firewall. 07
- Q.5 (a) Explain three way handshaking mechanism used in TCP for Connection Establishment process. 07
- (b) Explain Security Association and discuss IPSec authentication header. 07
- OR**
- Q.5 (a) Explain the format of UDP Messages and UDP Pseudo-Header in detail. 07
- (b) Explain MIME extensions for Non-ASCII data. 07
