

Enrollment No: _____

Exam Seat No: _____

C. U. SHAH UNIVERSITY

Winter Examination-2019

Subject Name: Next Generation Networks

Subject Code: 4TE07NGN1

Branch: B.Tech (IT)

Semester : 7

Date : 18/11/2019

Time : 10:30 To 01:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
-

Q-1 Attempt the following questions:

- | | |
|--------------------------------------------------------------|-----------|
| a) What is super netting? | 01 |
| b) What is Fully Qualified Domain Name? | 01 |
| c) List the various timers used in TCP. | 01 |
| d) What is the size of MTU? | 01 |
| e) What is meant by masking? | 01 |
| f) Give the key elements of protocol. | 01 |
| g) Define De facto standard. | 01 |
| h) Define SMTP. | 01 |
| i) What is ARP | 01 |
| j) List the use of BOOTP protocol. | 01 |
| k) Which layer do each of the RARP, DNS protocols belong to? | 01 |
| l) What are the features of TCP? | 01 |
| m) What is IP datagram? | 01 |
| n) List the limitations of IPv4. | 01 |

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions

- | | |
|---------------------------------------------------------------|-----------|
| a) Draw and explain TCP State Transition Diagram. | 07 |
| b) Write a Short note on Dynamic Host Configuration protocol. | 07 |



- Q-3 Attempt all questions**
- a) Show & explain various fields of IP (internet protocol) Datagram. **07**
 - b) Describe working of Routing information protocol (RIP). **07**
- Q-4 Attempt all questions**
- a) Discuss protocols associated with layers of TCP/IP protocol suite. **07**
 - b) Discuss file transfer protocol and it's working. **07**
- Q-5 Attempt all questions**
- a) Explain IP Addressing using Classful and Classless Addresses. **07**
 - b) Describe BGP (Border Gateway protocol) in detail. **07**
- Q-6 Attempt all questions**
- a) Explain Internet Control Message protocol with message types, Message format and Error reporting. **07**
 - b) What is Socket? List down the advantage of using socket interface and Explain TCP Socket. **07**
- Q-7 Attempt all questions**
- a) Compare IPV4 and IPV6 with their header format. **07**
 - b) List and explain five commands to configure router. **07**
- Q-8 Attempt all questions**
- a) How ARP and RARP protocols are fundamentally different? In what respect they are similar? **07**
 - b) An organization is granted the block 130.56.0.0/16. The administrator wants to create 1024 subnets. **07**
 - i. Find the number of addresses in each subnet
 - ii. Find the subnet prefix.
 - iii. Find the first and the last address in the first subnet
 - iv. Find the first and the last address in the last subnet.

