6E 6021

Roll No. _____

6E6021

B.Tech. VI Semester (Main/Back) Examination, May-June 2015
Computer Science
6CS1A Computer Networks
Common for IT

Time : 3 Hours

Maximum Marks : 80
Min. Passing Marks : 24

Instructions to Candidates:

*Attempt any **five** questions, selecting **one question** from each unit. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.*

Unit - I

1. a) Explain distance vector routing algorithm and flow based routing algorithm.**(8)**

   b) Explain Link state routing algorithm with example. **(8)**

OR

1. a) Describe the concept of congestion control. Describe Token Bucket Algorithm. **(8)**

   b) List the policies of congestion prevention in transport data link and network layer **(8)**

Unit - II

2. a) What is tunneling and fragmentation? Explain it. **(8)**

   b) Write short note on IPv4 and IPv6 packet format. **(8)**

OR

2. a) Explain the following protocols:

    i) RARP Vs BOOTP

    ii) POP3 Vs IMAP

   b) How are IP addresses assigned? Describe this with suitable example for internet

Unit - III

3. a) Explain the term "upward multiplexing" and "downward multiplexing" with reference to transport layer **(8)**

   b) Discuss the procedure of connection establishment in the transport layer. **(8)**

OR

3. a) Draw the format of the UDP header and explain in brief the various fields **(8)**

   b) Briefly discuss the transport layer services **(8)**

Unit - IV

4. a) Explain Quality of service for transport layer **(8)**

   b) Explain the TCP service model **(8)**

OR

4. Describe the difference between a confirmed service and unconfirmed service. Do the following functions full into the category of confirmed service, unconfirmed service, both types or neither

   i) Connection establishment

   ii) Data transfer in a connection oriented service

   iii) Data transfer in a connectionless service

---

   iv) Connection release

   - Justify your answer **(16)**

Unit - V

5. a) Explain HTTP and its message formats. **(8)**

   b) Explain architecture of world wide web. **(8)**

OR

5. a) Explain different services of application layer. **(8)**

   b) Explain the authoritative and non-authoritative DNS. **(8)**