

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 : 20

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 & 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

Unit - III

3. a) Explain the term “upward multiplexing” and “downward multiplexing” with reference to transport layer
- b) Discuss the procedure of connection establishment in the transport layer

OR

3. a) Draw the format of the UDP header and explain in brief the various fields
- b) Briefly discuss the transport layer services

Unit - IV

4. a) Explain Quality of service for transport layer
- b) Explain the TCP service model

OR

4. Describe the difference between a confirmed service and unconfirmed service. For the following functions, state whether they fall 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)