

29/4/2016

6E6021

Roll No. _____

Total No of Pages: **3**

6E6021

B. Tech. VI-Sem. (Main/Back) Exam., April/May-2016

Computer Science & Engineering

6CS1A Computer Networks

CS, IT

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks (Main & Back): 26

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 may suitably be assumed and stated clearly.*

Units of quantities used/ calculated must be stated clearly.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL

2. NIL

UNIT-I

- Q.1 (a) What do you understand by routing? Explain the classification of routing algorithms. [6]
- (b) Discuss shortest path routing algorithm with help of suitable example. [10]

OR

- Q.1 (a) Discuss the reason of congestion in a network. Also discuss Leaky bucket and Token bucket algorithms in detail. [8]
- (b) Contrast between distance vector and link state routing after discussing both. [8]

UNIT-II

- Q.2 (a) State the concept of tunneling. Under what practical circumstances it is used?
Explain by suitable example. [8]
- (b) Discuss classes of IPV4. Also explain provision of multicast and broadcast support in IPV4. [8]

OR

- Q.2 Write short note on following: [8×2=16]
- (a) IPV4 Vs IPV6
- (b) Mobile IP

UNIT-III

- Q.3 (a) Write a technical note on flow control and buffering. [8]
- (b) Explain the need of multiplexing at transport layer. Describe the multiplexing and De-multiplexing with help of suitable diagram. [8]

OR

- Q.3 (a) Differentiate between a reliable and lossy channel. Also derive relation between channel and bit errors. (Take your own assumptions.) [8]
- (b) Describe UDP protocol and its application in DNS. [8]

UNIT-IV

- Q.4 Draw and explain TCP Header and segment structure. [16]

OR

- Q.4 (a) Discuss the TCP connection establishment and release. [8]
- (b) Write a technical note on TCP congestion control. [8]

UNIT-V

Q.5 (a) What is Network Security? Explain the principles of Network Security. Also discuss the various challenges in implementation of security in computer network. [8]

(b) Draw and explain Domain Name System (DNS) record structure. [8]

OR

Q.5 Write short note on:-

(a) World Wide Web (WWW) [8]

(b) File Transfer Protocol (FTP) [8]
