

Total No. of Questions : 12]

SEAT No. :

P1146

[Total No. of Pages : 2

[4163] - 353

May - June 2012

T.E. (Information Technology)
COMPUTER NETWORK TECHNOLOGY
(2008 Pattern) (Sem. - I)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer 3 questions from each section.
- 2) Answers to the two sections should be written in separate books.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.
- 5) Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.
- 6) Assume suitable data, if necessary.

SECTION - I

Q1) a) Explain with example: **[10]**

- i) Hierarchical routing Algorithm,
- ii) Link State routing Algorithm.

b) Explain the difference between interdomain and intradomain routing protocols with example. **[8]**

OR

Q2) a) Differentiate among circuit switching, packet switching and message switching. Give at least one example. **[9]**

b) What do you mean by congestion? Explain any two congestion control algorithms in virtual circuit subnets. **[9]**

Q3) a) What is fragmentation? Explain types of fragmentation with example. **[8]**

b) Compare between IPv4 and IPv6. **[8]**

OR

Q4) a) What is NAT? Explain its operation with an example. **[8]**

b) Consider any class-B network with default subnet mask. How many actual hosts can be connected in that network? Divide that network into 8 equal subnets? **[8]**

What is the new subnet mask?

What is the starting address of the 4th Subnet?

What is the last address of the 4th Subnet?

How many hosts can be connected in each subnet? (Give all details).

P.T.O

Q5) a) Explain the three way handshake algorithm for TCP connection establishment. [8]

b) What is silly window syndrome? How to overcome it? [8]

OR

Q6) a) What is a Socket? Explain various socket primitives used in client - server interaction. [8]

b) What do you mean by flow control in transport layer? What are the different methods to achieve it? [8]

SECTION - II

Q7) a) What is cookie? Where and how it is used? [6]

b) Explain at least 6 commands of FTP in brief. [6]

c) Differentiate between FTP and TFTP. [6]

OR

Q8) a) List the four areas of network management and explain the necessity of each. [8]

b) Explain persistent and non-persistent HTTP Connection. [10]

Q9) a) Explain the RTSP protocol. Why this protocol is needed. [8]

b) Differentiate between SIP and H.323 protocol. [8]

OR

Q10) a) What is MIB? Explain its structure. [8]

b) Explain Round Robin and Weighted Fair Queuing algorithm for scheduling. [8]

Q11) a) Discuss various layers used in ATM architecture. [8]

b) Explain Bluetooth architecture with diagram. [8]

OR

Q12) Write a short note on: [16]

a) Limitations of Bluetooth.

b) ATM protocol stack.

c) Frame Relay.

