

Total No. of Questions : 12]

SEAT No. :

**P2282**

**[4758] - 101**

[Total No. of Pages :3

**T.E. (IT)**

**COMPUTER NETWORK TECHNOLOGY**

**(2008 Course) (Semester - I)**

*Time : 3 Hours]*

*[Max. Marks : 100*

*Instructions to the candidates:*

- 1) *Answers to the two sections should be written in separate answer books.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of Calculator is allowed.*
- 5) *Assume suitable data if necessary.*

**SECTION - I**

- Q1)** a) What is packet switching? Write advantages and disadvantages of packet switching. **[10]**
- b) Explain load shedding. How it is useful? Discuss its packet discard policies. **[8]**

OR

- Q2)** a) What is fragmentation? Why it is required? List factors of fragmentation. Explain Transparent fragmentation and Non-Transparent fragmentation. **[10]**
- b) Write difference between static routing and dynamic routing. **[8]**

OR

- Q3)** a) Explain DHCP client server communication with help of diagram. **[8]**
- b) For a given class - B network IP 175.165.0.0. with default subnet mask, how you can divide network in 10 small networks. How many hosts can be accommodated in each sub-network? **[8]**
- Q4)** a) With the help of diagrams explain IPv4 header format in details. **[8]**
- b) Define subnetting and super netting? A company is granted the site address 201.70.64.0 (class C). The company needs six subnets. Give the range IP in each subnet. **[8]**

**P.T.O.**

- Q5)** a) What is a socket? What are types of socket? Explain socket and bind primitives used in TCP client server communication. [8]
- b) What is mean by half-open connection? Explain transport layer connection relese scenarios. [8]

OR

- Q6)** a) Write difference between TCP and UDP. [8]
- b) What is silly window syndrome? Explain solution for this. [8]

### **SECTION - II**

- Q7)** a) Explain in details persistence and non-persistence connection of HTTP. [8]
- b) Explain the types of web documents. [8]

OR

- Q8)** a) Explain why DNS is required? Explain DNS resolution methods. [8]
- b) What is FTP? Which port no are used for data and control connection? [8]

- Q9)** a) Write difference between SIP and H.323. [8]
- b) Why multimedia networking is important? Explain with help of end-to-end delay and delay jitter. [8]

OR

- Q10)**a) Explain functions of media player in details? [8]
- b) Explain Accessing Audio and Video from a Streaming Server to Helper Application. [8]

- Q11)** a) Explain Fast Ethernet in detail. [8]
- b) With help of diagram explain functions ATM layers and also explain cell format of ATM. [10]

OR

**Q12)** Write a short note on **any three**: [18]

- a) Bluetooth protocol stack.
- b) B-ISDN.
- c) Frame relay Vs X.25.
- d) Gigabit Ethernet.

