[4758] - 101

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]**

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]**

OR

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]**

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.