

Total No. of Questions : 12]

SEAT No. :

P2949

[4958]-187

[Total No. of Pages : 2

**T.E.(Computer Engineering)
COMPUTER NETWORKS
(2008 Course) (Semester-II)**

Time :3Hours]

[Max. Marks : 100

Instructions to the candidates:

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

SECTION-I

Q1) a) What is DNS? Explain with suitable example how query resolving process is done? **[8]**

b) What is the difference between persistent and non persistent HTTP? Also explain HTTP message format. **[8]**

OR

Q2) a) What are the Nuts & Bolts for Internet? Explain with suitable diagram? **[8]**

b) Compare circuit switching & packet switching techniques of network core? Explain in brief the functionality of DHCP server. **[8]**

Q3) a) Draw and explain three-way handshake process of TCP. **[6]**

b) Explain significance of following flags in TCP header SYN, RST, FIN, PSH **[6]**

c) Explain flow control in TCP. **[6]**

OR

Q4) a) Draw & Explain TCP Segment Structure? **[6]**

b) Suppose that we have the following three 16 bit words. **[6]**

0110011001100000

0101010101010101

1000111100001100

Calculate the UDP Checksum for above?

c) How connection Management is done in TCP? **[6]**

P.T.O.

- Q5)** a) Explain significance and working of RSVP protocol. [8]
b) What is QoS? Explain it with respect to reliability, delay, jitter and bit rate. [8]

OR

- Q6)** a) Describe in brief Integrated Services and Differentiated services. [8]
b) Explain Different Scheduling Algorithm? [8]

SECTION-II

- Q7)** a) Compare IPv4 and IPv6. Draw and Explain IPv6 header format. [8]
b) Explain network layer design issues. [8]

OR

- Q8)** a) Compare ARP with RARP? [8]
b) Explain Concept of Internet Control Message Protocol? [8]
Q9) a) Explain Distance vector Routing. What are the advantages and disadvantages of DVR? [8]
b) Explain RIP and OSPF in details. [8]

OR

- Q10)** a) Classify routing algorithms. Also compare link state and distance vector routing. [8]
b) Describe in brief ICMP messages. [8]
Q11) a) How Distance Vector Routing Algorithm works? [6]
b) Explain Routing policy of BGP? [6]
c) Compare Broadcast And Multicast Routing [6]

OR

- Q12)** a) Explain the principle characteristics of ATM [6]
b) Draw & Explain multiprotocol Label Switching (MPLS) Header format? [6]
c) Compare between switches and routers. [6]

