Total No. of Questions : 12]

SEAT No. :

P1420

[Total No. of Pages : 3

[4858] - 187

T.E. (Computer Engineering) (Semester - II)

COMPUTER NETWORKS

(2008 Pattern)

Time : 3 Hours] *[Max. Marks : 100*

Instructions to the candidates :-

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

SECTION - I

Q1) a) Compare circuit switching and packet switching Techniques of network core. Explain in brief the functionality of DHCP server. **[8]**

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

OR

Q2) a) Compare file transfer using FTP and HTTP methods. **[8]**

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

Q3) a) Explain Significance of following flags in TCP header. SYN, RST, FIN, PSH. **[8]**

b) Explain flow control in TCP. **[8]**

OR

Q4) a) Draw and explain TCP segment structure. **[8]**

b) Why UDP does not provide reliable data transfer? Justity. compare UDP with TCP. **[8]**

P.T.O.

Q5 a) Explain working of RSVP in detail. **[8]**

b) What is QoS? Explain QoS parameters. **[6]**

c) Discuss in brief integrated services. **[4]**

OR

Q6) a) What is traffic shaping? How is it used for congestion control? **[8]**

b) Discuss in brief Differentiated services. **[4]**

c) How TCP estimates RTT and Timeout. **[6]**

SECTION - II

Q7) a) What are the components of Router? What is difference between routing and forwarding? **[8]**

b) Explain network layer Design issues? **[8]**

OR

Q8) a) Compare and contrast IPV4 and IPV6 header fields. Do they share any field in common? **[8]**

b) Which protocol is used to obtain IP address by giving physical address? Explain 255.255.255.255 is which type of IP address. **[8]**

Q9) a) Write a short note on Hierarchical Routing. **[4]**

b) Explain Routing policy of BGP? Compare Broadcast and multicast routing. **[6]**

c) How Distance vector Routing Algorithm works? **[8]**

OR

Q10) a) Describe in brief ICMP messages. **[6]**

b) Explain MACA and MACW protocols. **[6]**

c) What is PPP? Explain with state transition diagram? **[6]**

Q11) a) Explain HDLC frame format. **[8]**

b) Write short note on ATM. **[8]**

OR

Q12) a) Explain the working of MPLS. **[8]**

b) Explain the functionalities of Hubs & switches. How switches and routers are different? Explain. **[8]**

⌘⌘⌘