P1420

[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]**

<div align="center">OR</div>

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]**

<div align="center">OR</div>

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

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

<div align="right">***P.T.O.***</div>

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]**

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