Total No. of Questions : 10] [Total No. of Printed Pages : 3

Roll No. .....

IT–603(N)

B. E. (Sixth Semester) EXAMINATION, June, 2010

(New Scheme)

(Information Technology Engg. Branch)

INTERNET TECHNOLOGY AND NETWORK MANAGEMENT

[IT – 603(N)]

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : Attempt *one* question from each Unit. All questions carry equal marks.

Unit – I

1. (a) Explain Address resolution protocol packet format. What is ARP cache and why it is used.

   (b) List out various advance features of IPv6 as compared to IPv4.

Or

2. (a) Let IP address 200·210·60·76/28, find the subnet mark, subnet id, broadcast address and also find total number of subnet and total number of host in each subnet.

   (b) Define basic transfer unit of Internet. Explain its format and description of each field.

P. T. O.

Unit – II

3. (a) Describe error reporting mechanism in IP. Give a list of various errors reported through ICMP.

   (b) Differentiate between distance vector routing and link state routing protocol.

Or

4. (a) Define routing. Explain Intra and Inter domain routing.

   (b) Explain the following ICMP message types :

   (i) ICMP Address mask request and reply.

   (ii) ICMP timestamp request and reply.

Unit – III

5. (a) Explain TCP segment header and list different type of options available in TCP header.

   (b) Explain TCP connection establishment and termination.

Or

6. (a) Explain UDP encapsulation and decapsulation.

   (b) Draw the TCP state transition diagram and explain it.

Unit – IV

7. (a) Explain bootstrap protocol. Differentiate between RARP and BOOTP.

   (b) Explain DNS and its message format.

Or

8. (a) Explain how packets are exchanged between client and server in SMTP.

   (b) What are the different message types used by SNMP ? Explain the format of SNMP message.

Unit – V

9. (a) Explain configuration management and how security can be managed using it.

   (b) Explain policy based management.

Or

10. (a) Explain fault management.

    (b) Write short notes on any *two* of the following :

        (i) OSPF routing protocol

        (ii) POP and IMAP

        (iii) TFTP