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T.E. (Information Technology) (Semester – II) Examination, 2009
(2003 Course)
COMPUTER NETWORK TECHNOLOGY

Time : 3 Hours Max. Marks : 100

***Instructions**: 1) Answer **3** questions from Section **I** and **3** questions from Section **II**.*
*2) **Neat** diagrams must be drawn **wherever** necessary.*
*3) Assume suitable data, if **necessary**.*

SECTION – I

1. A) What is fragmentation ? Explain how it is supported in IPv4 and IPv6. **8**
   B) Differentiate between distance vector routing and link state routing. **8**

OR

2. A) What is NAT ? Where and why it is used ? Explain its operation with suitable example. **8**
   B) Consider any class - C network with default subnet mask. How many actual hosts can be connected in that network ? Divide that network into 4 equal subnets. What is the new subnet mask ? How many hosts can be connected in each subnet ? **8**
3. A) How packet switching makes more bandwidth utilization over circuit switching ? Illustrate with example. **8**
   B) Compare and contrast between RPC and UDP. **8**

OR

4. A) Explain what is Silly Window Syndrom Problem ? Explain atleast 2 methods to overcome it. **8**
   B) List and discuss performance issues of the transport layer. **8**
5. A) What is CGI ? Where and how it is used ? **8**
   B) Compare between FTP and TFTP. **4**
   C) Explain how DNS works. **6**

OR

6. A) What is a cookie ? Where and how it is used ? **6**
   B) Differentiate between POP3 and IMAP. **6**
   C) Write a note on MIME. **6**

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SECTION – II

7. A) Differentiate between SIP and H.323 protocol. **8**

   B) Explain any two policy methods used in multimedia communication. **8**

OR

8. A) What is the need of RTCP bandwidth scaling ? **8**

   B) What is RSVP ? Why it is required ? **8**

9. A) Explain and compare DHCP and BOOTP. **8**

   B) What is MIB ? Explain its structure. **8**

OR

10. A) Discuss the role of SMI in SNMP. Give the data types supported by SMI. **8**

    B) How SNMP messages are used to monitor and control the network elements ? **8**

11. A) Describe the architecture of broadband ISDN. **8**

    B) Write short notes on a) SMDS b) Frame relay. **10**

OR

12. A) Explain the WLAN architecture. **8**

    B) Write short notes on a) Bluetooth protocol stack b) ATM. **10**
