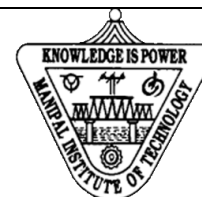


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MANIPAL INSTITUTE OF TECHNOLOGY
 (Constituent Institute of Manipal University)
 MANIPAL-576104



I SEMESTER M.TECH(CSE & CSIS) DEGREE
END-SEMESTER EXAMINATION-NOVEMBER/DECEMBER 2014
SUBJECT: ADVANCED COMPUTER NETWORKS (CSE 503)

TIME: 3 HOURS

MAX.MARKS: 50

Instructions to Candidates

Note: ANSWER ANY FIVE FULL QUESTIONS. Missing data, if any may be suitably assumed.

- 1a. Write the IPV4 header format and explain the function of various fields. [5]
- b. Explain the working of input and output modules in ARP package. [5]

- 2a. A computer sends a timestamp request to another computer. It receives the corresponding timestamp reply at 3:36:07 p.m. The values of the original timestamp, receive timestamp and transmit timestamp are 13,660,000, 13,662,000 and 13,664,300 respectively. What is the sending trip time? What is the receiving trip time? What is the round trip time? What is the difference between the sender clock and the receiver clock? [5]
- b. Explain the following:
 - i) SYN Flooding attack.
 - ii) Silly Window Syndrome. [2+3]

- 3a. Distinguish between POP3 and IMAP4. [3]
- b. What are the transmission modes supported in FTP? Which is the default mode? [2]
- c. Explain the functionality of Hop-by-Hop extension header. [5]

- 4a. Give the format and explain the working of group membership messages. [5]
- b. Draw a neat diagram of an optical transmission system and explain its

working. [5]

5a. Give an example and explain fixed alternate routing algorithm. [5]

b. What is OSPF protocol? Explain the different types of OSPF links. [5]

6. Write short notes on the following:

i) UDP applications.

ii) HIPPI.

iii) Voice Over IP.

iv) RIP timers.

[3+2+2+3]
