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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)
DATE: 06-12-2014

TIME: 3 HOURS MAX.MARKS: 50

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

1A. Briefly explain the multiple byte options in IPV4.
1B. Explain the working of ARP protocol. Mention any two situations in which the services of ARP can be used. (5+(3+2))

2A. A computer receives a timestamp request from another computer at 2:34:20 a.m. The value of the original timestamp is 82,543,00. If the sender clock is 6ms slow what is the one way time? If the sender clock is 6ms fast what is the one way time?
2B. Give the format of control field in TCP header and describe the function of each bit. (4+6)

3A. What are the components of SMTP protocol? Where are they located in the network?
3B. Distinguish between persistent and non-persistent HTTP connections.
3C. Explain any two strategies for transition from IPV4 to IPV6. (3+2+5)

4A. Distinguish between router advertisement and neighbor advertisement messages.

4B. Draw a neat diagram and explain the working of a broadcast and select network. What are its merits and demerits? (5+5)

5A. Give an example and explain the working of exhaust routing algorithm.
5B. Describe RIP version 1 protocol. (5+5)

6. Write short notes on the following:
i) TCP timers.
ii) DQDB
iii) Optical Packet Switching
iv) OSPF Links. (3+2+3+2)

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