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



I SEMESTER M.TECH(CSE & CSIS) DEGREE END-SEMESTER MAKEUP EXAMINATION-DEC/JAN 2015 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. With the help of an example explain IPV4 fragmentation.
- 1B. Explain the multi byte options in IPV4.

(4+6)

- 2A. What is proxy ARP? Explain the four different cases in which the services of ARP can be used.
- 2B. Briefly explain the various query messages in ICMPV4. Name 2 tools that use ICMP for debugging. ((1+4)+(4+1))
- 3A. Draw a neat diagram and explain UDP package.
- 3B. Give an example and explain TCP checksum calculation and verification.(4+6)
- 4A. Distinguish between persistence and keepalive timers in TCP.
- 4B. What are the files types and attributes supported in FTP?
- 4C. What is Header translation strategy?

(4+3+3)

- 5A. Explain the different wavelength selection algorithms.
- 5B. Draw necessary diagrams and explain the following:
 - i. WDM point to point link.
 - ii. Wavelength Add/Drop multiplexer.
 - iii. Wavelength cross connect.

(4+(2x3))

CSE 503 Page 1 of 2

- 6. Write short notes on the following:
 - i) ADSL.
 - ii) OSPF protocol
 - iii) Optical Packet Switching
 - iv) HTTP cookies

(2+3+3+2)

CSE 503 Page 2 of 2