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VII SEMESTER B.E. DEGREE END EXAMINATION
MAY-2011
SUBJECT**: Network Protocol (CSE 306)**

TIME : 3 HOUR MAX.MARKS :50

Instructions to Candidates

- Answer should be clear and concise in point form.
- Missing data can be suitably assumed

1A. Write a descriptive note on the different classes and its blocks in class-full addressing with examples. (3 Marks)

1B. A host in class C that does not know its IP address and wants to send a message to a bootstrap server to find its address. What are the source and destination addresses? (2 Marks)

1C. An ISP granted a block of addresses starting with 150.80.0.0/16. The ISP wants to distribute these blocks to 1000 customers as follows. (3 Mark)

- The first group has 200 medium size businesses , each needs 128 addresses
- The second group has 400 small size businesses , each needs 16 addresses
- The third group has 2000 small businesses , each needs 4 addresses

Design the sub blocks and give the slash notation for each sub block.

1D. A router with IP address 195.5.2.12 and Ethernet physical address AA:25:AB:1F:67:CD has received a packet for destination with IP address 185.11.78.10. When the router checks its routing table it finds out the packet should be delivered to a router with IP address 195.5.2.6 and Ethernet physical address AD:34:5D:4F:67:CD. Show the entries in the ARP request packet sent by the router. Assume no subnetting. (2 Marks)

2A. Explain the timestamp option and strict source route option in IP with its format. (3 Marks)

2B. Explain two cases where ICMP time exceeded message generates? (2 Marks)

2C	A computer sends a timestamp request to another computer. It receives the corresponding time stamp reply at 3:46:07 am. The values of the original time stamp, receive timestamp, and transmit timestamp are 13,560,000, 13,562,000 and 13,564,300 respectively. What is the sending trip time, receiving trip time and round trip time? What is the difference between sender clock and receiver clock?	(3 Marks)
2D	Explain the UDP operation with respect to queuing.	(2 Marks)
3A.	With the required packet contents explain the connection establishment using three way handshaking process in TCP.	(3Marks)
3B.	Explain the concept of congestion detection in TCP.	(3 Mark)
3C	Explain the compression concept in DNS with format.	(2 Marks)
3D.	The state of the receiver is as follows.	(2 Marks)

- The receiving queue has chunks 1 to 8, 11 to 14 and 16 to 20
- There are 1800 bytes of space in the queue
- The value of lastACK is 4
- No duplicate chunk has been received
- The value of cumTSN is 5

Show the contents of the SACK message sent by the receiver.

4A.	Explain the flow control in SCTP.	(5 Marks)
4B.	What are the different modes which support the TELNET implementation? Explain.	(3 Marks)
4C.	What is the size of DNS query message requesting the domain name for 185.34.23.12?	(2 Marks)
5A.	Explain any two attributes of communication over data connection in FTP.	(6 Marks)
5B	How error control is handled in TFTP.	(4 Marks)
6A	Explain the persistent and non persistent connection in HTTP.	(3 Marks)
6B	Write the pseudo code for fragmentation module in IP.	(3 Marks)
6C	Explain the two cases where Mobile IP can be inefficient.	(4 Marks)

%%%%%%%%%%%%%% **All the best** %%%%%%%%%%%%%%%%