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B.E. / B.Tech (Full time) DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2011

COMPUTER SCIENCE AND ENGINEERING BRANCH

SIXTH SEMESTER

CS 9034 – TCP/IP DESIGN AND IMPLEMENTATION

(REGULATIONS 2008)

Time: Three Hours Max marks: 100

Answer All Questions

PART - A (10*2=20 MARKS)

1. What is ARP Cache? Discuss the advantages.
2. Discuss the significance of DF and MF bit in IP header.
3. How ICMP redirect errors are handled by TCP?
4. Explain the concept of Window probe?
5. How the IP routing table is organized?
6. Discuss the data structure of host group table?
7. What are the 4 TCP Output messages in TCP?
8. What is the use of window advertisement in a TCP segment?
9. What is silly window syndrome?
10. Name the timers used in TCP congestion control.

PART - B (5*16=80 MARKS)

11. (i)Explain subnetting and supernetting with examples.(10)
    (ii) Discuss the IP Routing algorithm. (6)

12. (a) (i)How is connection established and terminated in TCP?(10)
    (ii)Give the use of persist and keep alive timers. (6)

or

(b) (i)How timeout and retransmission is calculated in TCP? (8)

(ii)Explain path MTU discovery with an example. (8)

13. (a) (i) Give the structure of the IP routing table.(8)

(ii)How is multicasting implemented in internet? (8)

Or

(b) (i)How is fragmentation and reassembly of datagram's implemented?(8)

(ii)Discuss the implementation of host group table. (8)

14. (a) (i)Explain how allocation and de-allocation of TCB is done in TCP Input processing(10)

(ii) Explain the 4 output states of TCP. (6)

Or

(b) (i) Discuss about IDLE, PERSIST and TRANSMIT states of TCP output processing. (8)

(ii) Explain the TCP output processing and its implementation.(8).

15. (a) (i). Give the implementation of timer process.(8)

(ii)How the push function is implemented (8)

or

(b)How is congestion avoidance and control done in T CP? Give its implementation (16)