

B.E./B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2011

COMPUTER SCIENCE AND ENGINEERING

SIXTH SEMESTER

37

CS 9034 – TCP / IP Design & Implementation

(REGULATIONS - 2008)

Time: 3 Hrs

Max Marks: 100

Answer All Questions

Part – A (10 x 2 = 20 Marks)

1. What network hardware uses ARP?
2. Define IP address? Give the IP address 126.110.16.7 what class of address is it?
3. What is time out and retransmission?
4. What is keep alive timer?
5. List the advantages of ICMP?
6. What is the use of routing table?
7. Define mutual exclusion?
8. How will you compute TCP data length?
9. Define adaptive retransmission?
10. What is congestion control?

Part – B (5 x 16 = 80 Marks)

11. i) Discuss the classful addressing scheme with diagram (8)  
ii. Explain the ARP protocol format with its diagram (8)
  12. A. i. Explain the TCP segment format with diagram (8)  
ii. Discuss the Establishing and closing a TCP connection with diagram (8)
- (OR)
- B) i. Discuss in detail about Timeout and retransmission (8)  
ii. Explain the Karn's algorithm and timer backoff (8)
13. A) i. Write and explain the IP routing algorithm (8)  
ii. Explain the Next-Hop routing with an example (8)

(OR)

B) Explain the following

- i. Echo request and reply message format (4)
- ii. Congestion and datagram flow control (4)
- iii. ICMP message format (4)
- iv. Router Discovery (4)

14. A) i. Explain the design process in detail (8)
- ii. Discuss the design steps in transform-mapping (8)

**(OR)**

- B) i. Explain any two types of software testing (8)
- ii. Discuss the project management in detail (8)

15. A) i. Differentiate validation and verification with suitable example in detail (8)
- ii. Explain the Process improvement with suitable example (8)

**(OR)**

B) Explain the following in Project Management

- (i) Risk Management (8)
- (ii) Metrics for process (8)