Time: 3 hrs   Max.Marks:100

Answer All Questions

Part – A (10X2 = 20 Marks)

1. What is the connection oriented protocol of transport layer in TCP/IP reference model? What is the connectionless protocol of transport layer in TCP/IP reference model?
2. Whether Internet Protocol is connection oriented or connectionless?
3. Mention any four major applications of bridges.
4. Mention any four electrical test equipments used in troubleshooting networks?
5. How many bits are present in IPv6 addresses?
6. What is the purpose of flow label field in IPv6 header?
7. What are SYN and ACK segments in TCP connection establishment/
8. Mention any four applications of DNS.
9. Define a socket.
10. Write short notes on rendezvous problem.

Part – B (5X16= 80 Marks)

11a. i. Explain the TCP/IP reference model.   (8)
     ii. Explain the class based addressing of IPv4.   (8)

12a. Explain the following.
         i.   Patch pane and wiring   (4)
         ii.   Power protection   (4)
         iii.   Communication equipments   (4)
         iv.   Operating System software   (4)
              (OR)
12b. i. Explain the datagram organization and virtual circuit organization of networks.
                                                      (8)
     ii. Discuss N-ISDN, B-ISDN and ATM.   (8)

13a. i. Discuss the design goals of IPv6.   (4)
     ii. Explain anycast feature of IPv6.   (4)
     iii. Discuss the migration process from IPv4 to IPv6.   (8)
              (OR)
13b. i. Explain the IPv6 fixed header.   (8)

ii. Explain the IPv6 extension headers. (8)

14a. i. Explain the end to end environment in which TCP works. (8)
    ii. Explain the connection establishment and connection release of TCP. (8)
(OR)
14b. i. Explain the various elements of DNS. (8)
    ii. Explain the operation of DNS with a typical scenario as the example. (8)

15a. i. Develop an echo client-server application. (8)
    ii. Discuss the major system calls used in the development of client-server application. (8)
(OR)
15b. i. Develop a date-time client-server application. (8)
    ii. Distinguish between iterative server and multi process server with suitable examples. (8)

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