BT-6/M-24

COMPUTER NETWORKS

Paper–PC-CS-304A

Time : Three Hours]   [Maximum Marks : 75

Note : Attempt any *five* questions selecting at least *one* from each unit.

UNIT–I

1. (a) What are the basis on which LAN, MAN and WAN are distinguished? (6)

    (b) What are differences between circuit switching and packet switching? (9)

2. (a) What are the characteristics of various transmission media? Explain. (9)

    (b) Discuss various layers of OSI-Reference Model. (6)

UNIT–II

3. (a) What is framing? Why is it important? Explain any *two* framing techniques. (9)

    (b) Explain reservation and polling schemes for medium access. (6)

4. (a) Explain how token ring system works? Which is the IEEE standard for it? Discuss token management. (9)

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(b) Give the working of HDLC protocol. Draw framing structure also of HDLC. (6)

UNIT–III

5. (a) Explain the functioning of IEEE 802.3 protocol. (9)

(b) Describe the working of distance vector routing algorithms. What are the challenges in this protocol. (6)

6. (a) Describe internet addressing in IP and subnetting with suitable examples. (9)

(b) Draw the IPv6 header and explain various fields present. (6)

UNIT–IV

7. (a) Discuss difference between UDP and TCP. (6)

(b) Explain the working of digital signatures in cryptography. (9)

8. (a) Explain the congestion control algorithm of TCP. (9)

(b) Describe the RPC protocol working. (6)