

46166**BT-6/M-23****COMPUTER NETWORKS****Paper-PC-CS-304A****Time : Three Hours]****[Maximum Marks : 75**

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

UNIT-I

1. (a) What are the advantages and disadvantages of wired and wireless networks? (6)
(b) Explain layers of TCP/IP architecture. (9)
2. (a) What are different network topologies. (9)
(b) Discuss various transmission impairments at physical layer. (6)

UNIT-II

3. (a) What are flow control protocols? Discuss with diagram working of sliding window protocol and selective repeat ARQ. (9)
(b) What are the functions of switches and routers? At which layer of the OSI-RM do these operate? (6)
4. (a) Explain how error is detected and corrected in digital transmission. (9)

- (b) Give the working of p-persistent, 1-persistent and non-persistent CSMA-CD. (6)

UNIT-III

5. (a) What does IEEE 802.x standard indicate? Give five different examples and their purpose under this series of IEEE standards. (9)
- (b) Describe the working of IPv6 protocol. (6)
6. (a) Describe ICMP protocol and various messages in it. (9)
- (b) Explain the unicast and multicast routing protocols. (6)

UNIT-IV

7. (a) Discuss various distinguishing features of TCP. (9)
- (b) Explain the importance of user authentication, integrity and cryptography. (6)
8. (a) Explain the working of firewall. Describe different types of firewall configurations. (9)
- (b) Describe the working of DNS protocol including chain of DNS servers. (6)
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