

## SECTION-A

1. What is Network Topology? What are its different types? How Ring Topology overcomes the pros and cons of Star Topology? Discuss in detail. 15
2. (a) What is TCP/IP? How it works? What are the different layers of TCP/IP model? Discuss. 8  
(b) What are transmission mediums in computer networks. Discuss in brief. 7

## SECTION-B

3. (a) What is Modulation? What are the different types of Modulation techniques? Discuss in detail. 10  
(b) Where does demodulation take place? 5
4. Explain the following :  
(a) Packet switching  
(b) Hybrid switching 2×7.5=15

## SECTION-C

5. (a) What are the IEEE 802 specifications? What is the status of the IEEE 802.1 working group? 10  
(b) What is a Token Ring Network? 5
6. What are the main functions of Network Layer? Explain Network Layer Design Issues in detail. 15

## SECTION-D

7. What is cryptography? Discuss its different algorithms which help in keeping information secret and secure. 15
8. What is a network service? What are the common network services? Discuss in detail. 15