



- N.B.: (1) Question No.1 is compulsory.
 (2) Attempt any three questions from the remaining five questions.
 (3) Make suitable assumptions wherever necessary but justify your assumptions

- | | |
|---|----|
| 1. a) Compare Ring and Star topology | 5 |
| b) Use RLE method of compression to compress the following data:
Data: AAAACCBBDDEFF | 5 |
| c) Explain the TCP connection establishment with relevant diagram | 5 |
| d) Compare LAN MAN and WAN | 5 |
| 2. a) What is the OSI Model? Give functions and services of each layer. | 10 |
| b) Discuss the different networking devices used for internetworking. | 10 |
| 3. a) What is Domain Name system? How does it work? Explain the resolution process | 10 |
| b) Explain the different transmission media in networking. | 10 |
| 4. a) What is congestion and what are its causes? Explain Token bucket algorithm for congestion control | 10 |
| b) Explain the TCP header format | 10 |
| 5. a) Compare Static and Dynamic Routing and explain any one with an example. | 10 |
| b) Explain stop and wait protocol. What are its drawbacks? How can they be overcome? | 10 |
| 6. Write a note on (any two) | 20 |
| a. RPC | |
| b. CSMA/CD | |
| c. IP Addressing | |
