

BT-6 / M-18
COMPUTER NETWORKS
Paper-IT-358

Time allowed : 3 hours]

[Maximum marks : 100

Note :- Attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

1. (a) Give the difference between LAN and wireless LAN. 10
(b) Explain any two WAN devices. 10
2. (a) Give the concept of layered architecture of networks. 10
(b) What do you mean by terms peer, SDU, encapsulation and service? 10

Unit-II

3. (a) What are different classes and class ranges for IPv4 addresses? 12
(b) Why we use ARP protocol? Explain its working. 8
4. (a) Define the terms dispersion, jitter, latency and collision. 12
(b) What is subnet addressing? Why is it needed? Give example. 8

(2)

Unit-III

5. (a) Give the error control procedure of token ring. 8
(b) Describe the optimality principle of routing algorithms. Explain various categories of routing algorithms. 12
6. (a) Explain the following terms: (i) Persistent CSMA (ii) Bit Map Protocol (iii) Binary Exponential Backoff algorithm. 12
(b) Explain the concept of hierarchical routing. What are its advantages? 8

Unit-IV

7. (a) Illustrate and explain connection establishment and connection termination procedure of TCP. 10
(b) What are firewalls? Explain various types of firewalls. 10
8. (a) What are remote monitoring techniques? Discuss. 10
(b) What are the issues involved in the design of application layer protocols. 10