

Printed Pages – 3

Roll No. :

C028531(028)

**B. Tech. (Fifth Semester) Examination,
Nov.-Dec. 2021**

AICTE (New Scheme)

(Electronics & Telecommunication Engg. Branch)

COMPUTER NETWORKS

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

***Note : Attempt all questions. Part (a) is compulsory
and attempt any two parts from (b), (c) &
(d) in each unit.***

Unit-I

1. (a) What is Network Topology? Explain its types with diagram. 4

[2]

- (b) Define transmission mode and explain types of transmission mode. 8
- (c) Explain DTE-DCE interface and significance of using EIA-232. 8
- (d) Explain different layers of OSI Model with their functions. 8

Unit-II

- 2. (a) Define the three main function of Data Link Layer. 4
- (b) Describe stop and wait flow control. 8
- (c) Describe sliding window flow control. 8
- (d) Discuss the mechanism of stop and wait ARQ error control. 8

Unit-III

- 3. (a) Define Ethernet. 4
- (b) Explain CSMA/CD and its use in detail. 8
- (c) Explain token ring and its access mechanism. 8

[3]

- (d) Explain the frame structure of FDDI. 8

Unit-IV

- 4. (a) Explain the principle of inter-networking. 4
- (b) Explain connecting devices : Repeaters, Hubs, Bridges, Routers. 8
- (c) Explain in detail TCP under TCP services and header format. 8
- (d) Explain difference between IPv4 and IPv6. 8

Unit-V

- 5. (a) Explain Services of Application Layers. 4
- (b) Explain Circuit and Packet switching. 8
- (c) Explain File transfer protocol in detail. 8
- (d) Explain working of SMTP (Simple Mail Transfer Protocol). 8