

# School of Computing Science and Engineering

B.Tech CSE  
ETE - Jun 2023

Time : 3 Hours

Marks : 100

## Sem IV - E1UA401B / BCAC2201

### Computer Networks

*Your answer should be specific to the question asked  
Draw neat labeled diagrams wherever necessary*

1. Define the transmission mode and categories of it K1 CO1 (5)
2. Describe the Fast Ethernet standard with examples. K2 CO2 (5)
3. Compare virtual circuit switching and datagram switching with a neat diagram. K3 CO3 (5)
4. What is multicast routing? Design the autonomous system with the following specifications: N7 and N8 are point-to-point WANs K3 CO3 (10)
  - a. R1 connects N1 and N2
  - b. R2 connects N1 and N7
  - c. R3 connects N2 and N8
5. List the functions of the Bus, Star Bus, and Star Ring Network Topologies. K1 CO1 (10)
6. Differentiate between the following: K2 CO2 (10)
  - (a) Guided and unguided media.
  - (b) Propagation speed and time
- 7) Describe the process of mail server configuration. Write steps to install and configure the TCP/IP protocol on the University network. K5 CO4 (10)

### OR

- Explain managing network bindings, sharing files, and sharing printers. K5 CO4 (10)
8. Define congestion control. Differentiate between Open loop and closed-loop congestion control techniques K4 CO4 (15)
  9. Discuss the role of the network layer and the fields of an IPv4 datagram header. K3 CO3 (15)
  - 10) With a clear diagram, describe the SNMP network management architecture. K4 CO4 (15)

### OR

- Analyze any two Flow control and error control methods K4 CO4 (15)