

CENTER FOR DISTANCE AND ONLINE EDUCATION



ASSIGNMENT-JULY 2024

SUB. NAME: - COMPUTER NETWORKS

MCA – 105: Online Mode

- Q-1** *Explain the applications of computer networks. What are the cost effective resource sharing techniques adapted in computer networks?*
- Q-2** *Discuss the difference between LANs (Local Area Networks) and WANs (Wide Area Networks). What is TCP/IP, explain with a neat diagram its architecture.*
- Q-3** *What is a subnet mask? How does it help in IP addressing? Explain with an example*
- Q-4** *What are the significances of different algorithms used in communication network? Explain the Dijkstra's algorithm showing network properties with communication systems.*
- Q-5** *Write a brief description of the three-way handshake process in TCP. Illustrate with a diagram*
- Q-6** *Describe the process of setting up a Virtual Private Network (VPN). What are the common VPN protocols and their purposes?*
- Q-7** **A.** *Explain distance vector routing protocol.*
B. *Discuss the working of the ARP protocol. How does it resolve IP addresses to MAC addresses?*
- Q-8** *Design a network layout for a small office with 20 computers, 2 printers, and a need for internet connectivity. Explain the choice of devices and their configuration.*
- Q-9** *Discuss the importance of network security in our day today life. How we can achieve and maintain network security*
- Q-0** *Define Bridges, Switches, Routers and Gateways. Discuss the applications of these appliances in any of the networking approach.*