Program: MS (CS)   **Total Marks: 50   Time Allowed:4hours**

Note: Attempt all Questions:

Q 1: a) Explain the "Stop and Wait" protocol? Also explain the following in brief. (2+6 Marks)

- Its background
- How this protocol works?
- Shortcomings

b) Thoroughly explain the concept of Sliding Window with its working principle? Also give an example. (2+3Marks)

c) Why there is a need of Virtual Circuit Switching (VCS). Explain it diagrammatically.(2+3 Marks)

Q 2: a) Distinguish between a root bridge and a non-root bridge. (2+2Marks)

b) Explain the difference between SNMPv 1,2 and 3 along with its configurations. (5 Marks)

c) Explain the spanning tree algorithm with an example. (6 marks)

Q3: a) What is the difference between a Circuit Switching and Packet Switching? (2 Marks)

b) What is a DHCP protocol and why it's important? Also explain how DHCP server works? (3+3 Marks)

c)   Why we use IP Tunneling? What are the disadvantages of tunneling?   (2+3 Marks)

d) Explain the Internet control message protocol (ICMP) and Datagram Format. (2+2 Marks)

---Best of Luck---