List of CN experiment

1. Use basic networking commands in Command Prompt

2. Build a simple network topology and configure it for static routing protocol using packet tracer. Setup a network and configure IP addressing, subnetting, masking.

3. Use Wire shark to understand the operation of TCP/IPlayers: ● Ethernet Layer: Frame header, Frame size etc. ● Data Link Layer: MAC address, ARP (IP and MAC address binding) ● Network Layer: IP Packet (header, fragmentation),ICMP (Query and Echo) ● Transport Layer: TCP Ports, TCP handshakesegments etc. ● Application Layer: DHCP, FTP, HTTP headerformats

4. Implement the Hamming code using C

5. Perform Remote login using Telnet server using Cisco Packet Tracer

6. To perform basic configuration tasks on Cisco routers and switches using the IOS CLI, including setting hostnames, configuring and encrypting enable passwords, verifying configurations, and saving them to startup configuration. **(DAY 4 -LAB YOUTUBE)**

7. To analyze network traffic using Packet Tracer's simulation mode by observing various protocol data units (PDUs) across different layers of the OSI and TCP/IP models, including STP, OSPF, and DHCP operations. **(DAY 3 -LAB YOUTUBE)**

8. To analyze ARP and ICMP message flow during network communication, learn MAC address table population in switches, and practice clearing dynamic MAC address entries using simulation and real-time modes in Packet Tracer. (**DAY 6 – LAB YOUTUBE)**

9. To design and implement a network topology using appropriate copper (straight-through and crossover) and fiber-optic connections between PCs, switches, and routers, considering transmission standards and cable selection based on device types and distance limitations. (**DAY2 LAB-youtube)**

10. Set up multiple IP addresses on a single LAN. Using nestat and route commands of Linux, do the following: • View current routing table • Add and delete routes • Change default gateway Perform packet filtering by enabling IP forwarding using IPtables in Linux.

11. Perform File Transfer and Access using FTP.