Sample list of lab Assignments

Sub:CNL

AY-19-20

A1.	**Setup a wired LAN using Layer 2 Switch and then IP switch of minimum four computers. It includes preparation of cable, testing of cable using line tester, configuration machine using IP addresses, testing using PING utility and demonstrate the PING packets captured traces using Wireshark Packet Analyzer Tool.**
A1	**Setup Wireless LAN using Access Point which includes configuration machine using IP addresses, testing using PING utility and demonstrate the PING packets captured traces using Wireshark Packet Analyzer Tool.**
A2.	**Write a program in C/C++ for error detection and correction for 7/8 bits ASCII codes using Hamming Codes or CRC. Demonstrate the packets captured traces using Wireshark Packet Analyzer Tool.**
A3.	**Write a program in Java/Python to demonstrate sub netting and find the sub net masks.**
A3.	**Write a program in Java/Python to demonstrate sub netting for a network 192.168.4.10 / 26 (form 4 subnets) and find the sub net masks.**
A3.	**Write a program in Java/Python to demonstrate sub netting for a network 192.168.4.10 / 26 (form 4 subnets) and demonstrate the intra-subnet communication**
A8.	**Installing and configure DHCP server and write a program (C++\Python\Java) to install the software on remote machine.**
A5.	**Write a program in C/C++/Java/python using UDP Sockets to enable data transfer text and file between two machines. Demonstrate the packets captured traces using Wireshark Packet Analyzer Tool .**
A6.	**Write a program in C/C++/java/Python using TCP socket for wired network for following** **a. Say Hello to Each other** **b. Send text file**
A6.	**Write a program in C/C++ using TCP socket for wired network for following** **a. implementation of Calculator (Arithmetic) /Calculator (Trigonometry)**

A7.	**Write a program in C/C++/Java/Python to analyze following packet formats captured through Wireshark for wired network. 1. TCP 2. IP**
A7	**Write a program in C/C++ to analyze following packet formats captured through Wireshark for wired network.** **1 .TCP 2.UDP**
B1	**Write a tcl program in ns2 to create a network with three nodes and establish a TCP connection between node 0 and node 1 such that node 0 will send TCP packet to node 2 via node 1.**
B1	**Write a tcl program in ns2 to create a network with 5 nods connected in star topology and establish a TCP connection between node 0 and node 1 such that node 0 will send TCP packet to node 2 via switch.**
B2.	**Use network simulator NS2 to implement:** **a. Monitoring traffic for the star and bus topology**
B3.	**Configure RIP/OSPF/BGP using packet Tracer.**
B4.	**Write a program in Java/python using TCP/UDP sockets for wired network to implement** **a. Peer to Peer Chat**
B4.	**Write a program Java/python using TCP/UDP sockets for wired network to implement** **a. Multiuser Chat**
A2	**Write a program in C/C++ for error detection and correction for 7/8 bits ASCII codes using Hamming Codes or CRC. Demonstrate the packets captured traces using Wireshark Packet Analyzer Tool for peer to peer mode.**
B3.	**Configure RIP/OSPF/BGP using packet Tracer.**
A4	**Write a program in C/C++/Java/Python to simulate Go-Back-N Sliding window protocol with window size 4 .**
A4	**Write a program in C/C++/Java/Python to simulate Selective Repeat Sliding window protocol with window size 4 .**