**Course: Computer Network Laboratory Code:** **15ECSP302**

**Part-A**

**SOCKET PROGRAMMING**

1. Create client server applications to implement the ECHO Server program using TCP sockets.
2. Create client server applications to implement the File Content Transfer using TCP sockets with suitable UNIX commands. Provide the authentication mechanism to transfer the file content.
3. Create client server applications to facilitate Error Detection up to few bits in the data transferred using CRC method.
4. Create client server applications to facilitate Error Detection up to few bits in the data transferred using checksum method.
5. Create client server applications to facilitate Error Detection up to few bits in the data transferred using Hamming code method and perform error correction.
6. Create a socket server application to capture the outgoing and incoming data packets.
7. Create client server applications to implement the chat application.

**Part-B**

**JUNOS**

**1. Configuration of VLAN’s with following scenarios**

1. Single switch
2. Two switch’s
3. Network with IP subnet
4. Network with different IP subnet.

**2. Configure DHCP server to assign IP’s to hosts.**

**3. Configure OSPF routing protocol for the following scenarios**

1. OSPF on 2 switches.
2. OSPF on 4 switches.

**OR**

**ETHERNET LAN**

Setup Ethernet LAN for the following scenarios

1. LAN with same class of IP’s assigned to hosts.
2. LAN with different class of IP’s assigned to hosts.
3. LAN setup of RING topology.