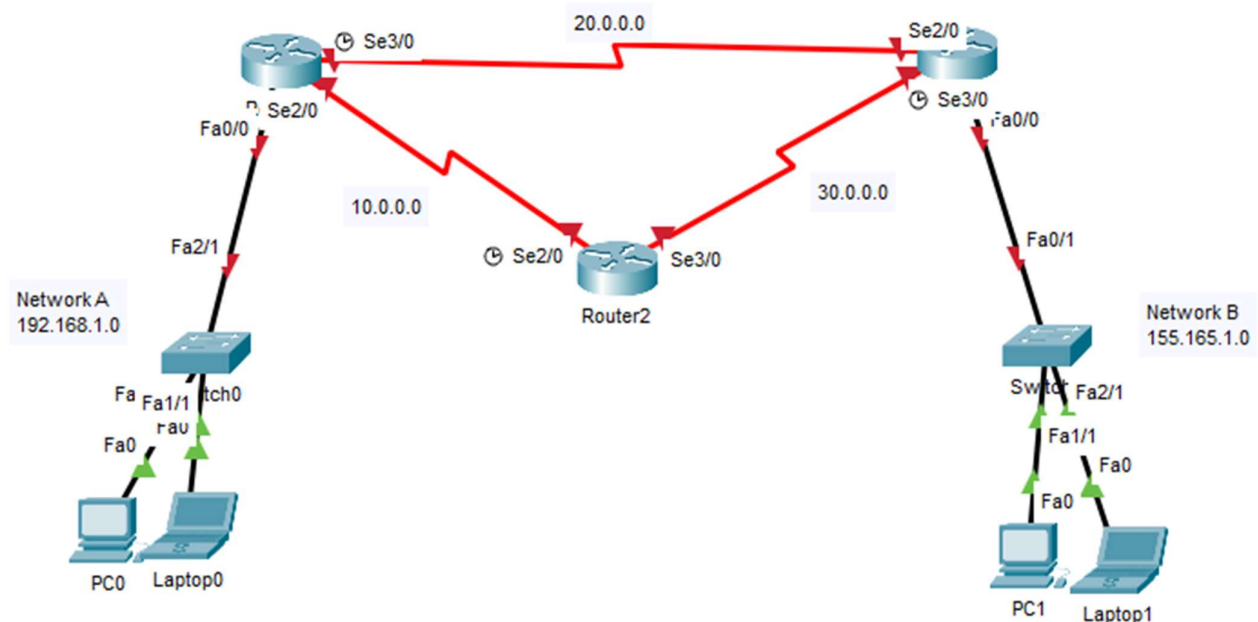# LAB5 How to configure OSPF

Design the following topology and label it accordingly

Assign IP addresses to the end devices statically, from the second available IP address, reserve the 1st IP for default gateway and assign it to the router interface connecting to the LANs. After assign IP address to all router interfaces, or ports available according to the given network IP.

Router>enable
Router#configure terminal
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#end

Router>enable
Router#configure terminal
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 155.165.1.1 255.255.0.0
Router(config-if)#no shutdown
Router(config-if)#end

Router>enable
Router#configure terminal
Router(config)#interface Serial2/0
Router(config-if)#clock rate 64000
Router(config-if)#ip address 10.0.0.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#

Router1>enable
Router1#configure terminal
Router1(config)#interface Serial2/0
Router1(config-if)#ip address 10.0.0.2 255.0.0.0

Router1(config-if)#no shutdown
Router1(config-if)#

Router1(config)#interface Serial3/0
Router1(config-if)#clock rate 64000
Router1(config-if)#ip address 20.0.0.1 255.0.0.0
Router1(config-if)#no shutdown

Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 20.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#

Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#clock rate 64000
Router(config-if)#ip address 30.0.0.1 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address 30.0.0.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#

After configuring all the interfaces on your network by assigning them with IP addresses, it's now time to implement OSPF on each router available on the network.

Router1#configure terminal
Router1(config)#router ospf 1
Router1(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router1(config-router)#network 10.0.0.0 0.255.255.255 area 0
Router1(config-router)#network 20.0.0.0 0.255.255.255 area 0
Router1(config-router)#exit

Router#configure terminal
Router(config)#router ospf 1
Router(config-router)#network 20.0.0.0 0.255.255.255 area 0
Router(config-router)#network 155.165.1.0 0.0.255.255 area 0
Router(config-router)#network 30.0.0.0 0.255.255.255 area 0
Router(config-router)#exit

Router#configure terminal
Router(config)#router ospf 1
Router(config-router)#network 10.0.0.0 0.255.255.255 area 0
Router(config-router)#network 30.0.0.0 0.255.255.255 area 0
Router(config-router)#exit
Router(config)#

Run this command on routers to see routing tables

Show ip route