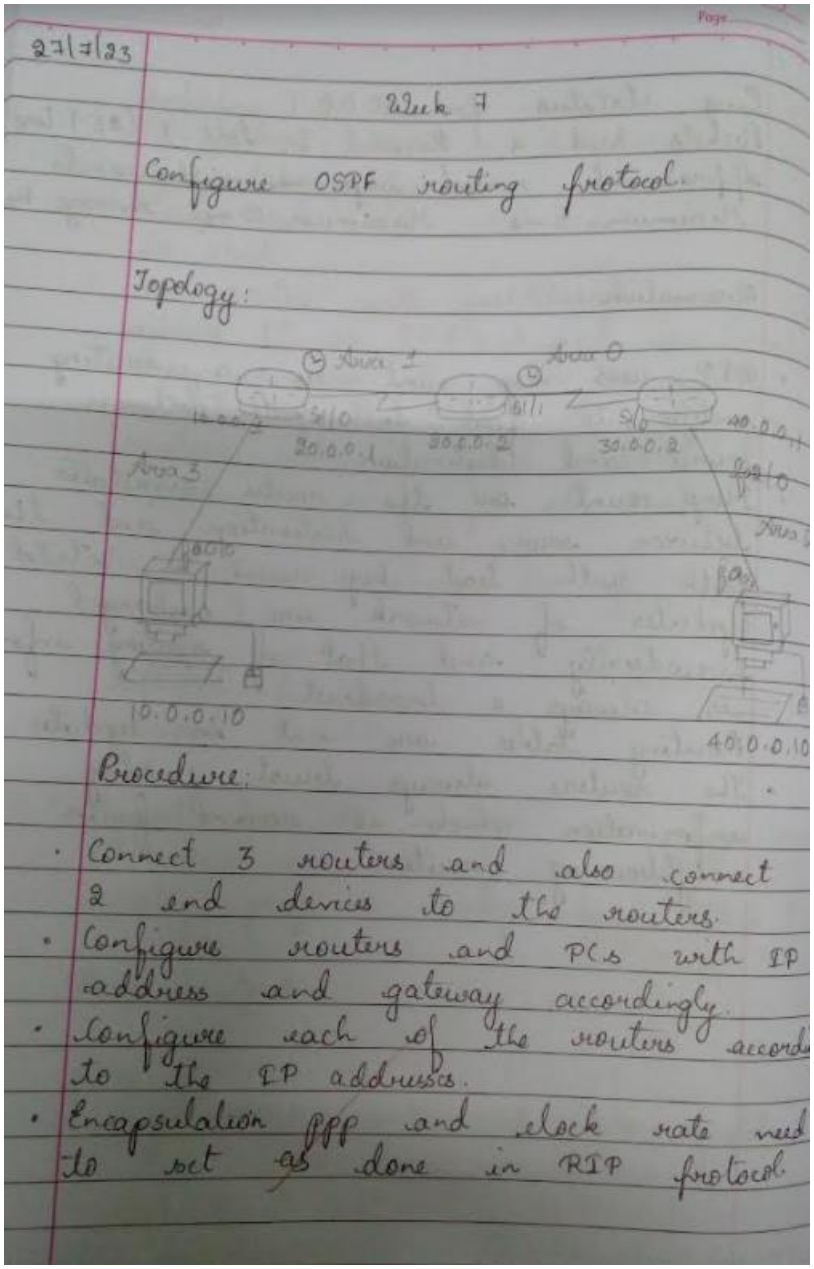
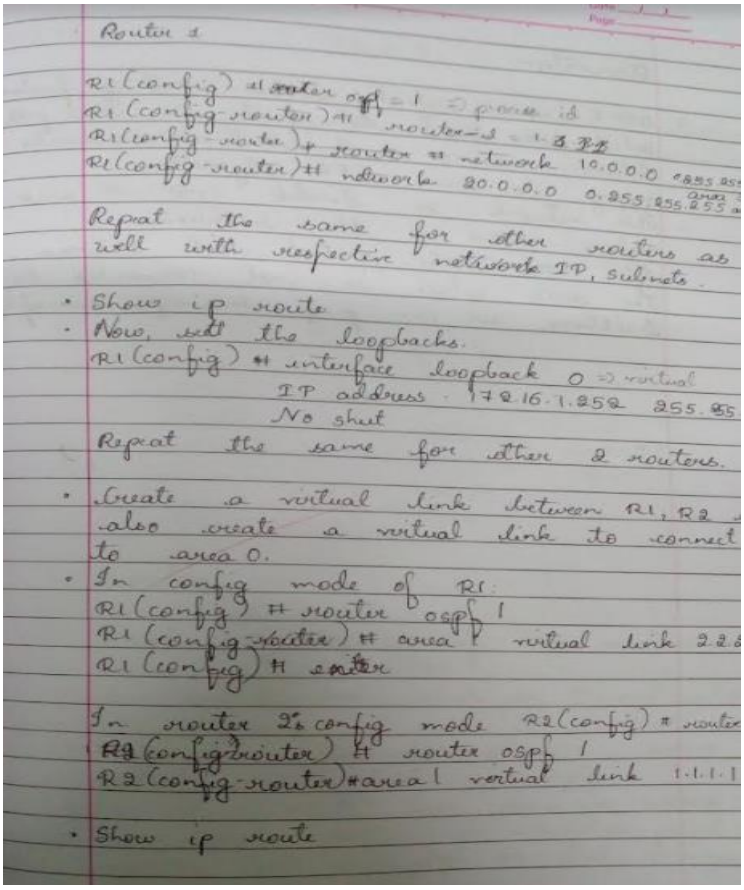
WEEK 7

Configure OSPF routing protocol

Observation :





Router 1

R1(config) # router ospf 1 => process id
R1(config-router)# router-id 1.1.1.1
R1(config-router)# router # network 10.0.0.0 0.255.255.255 area 0
R1(config-router)# network 20.0.0.0 0.255.255.255 area 0

Repeat the same for other routers as well with respective networks IP, subnets.

- Show ip route
- Now, set the loopbacks.

R1(config) # interface loopback 0 => virtual
IP address 172.16.1.252 255.255.255.255
No shut

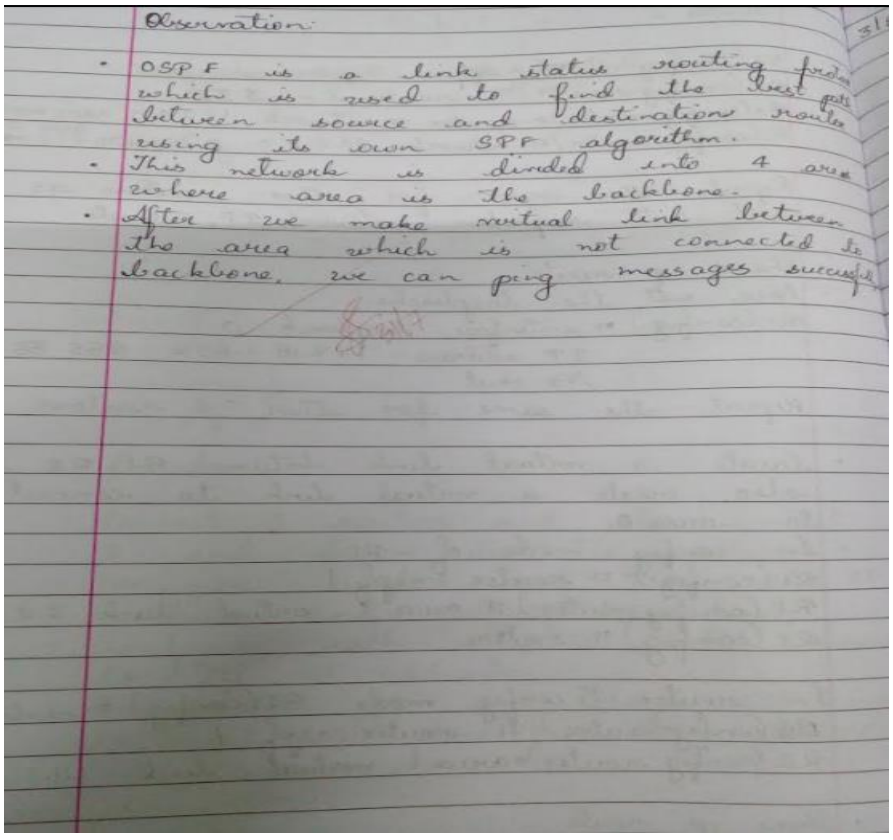
Repeat the same for other 2 routers.

- Create a virtual link between R1, R2 also create a virtual link to connect to area 0.
- In config mode of R1:

R1(config) # router ospf 1
R1(config-router) # area 1 virtual link 2.2.2.2
R1(config) # router

In router 2's config mode R2(config) # router
R2(config) # router ospf 1
R2(config-router)# area 1 virtual link 1.1.1.1

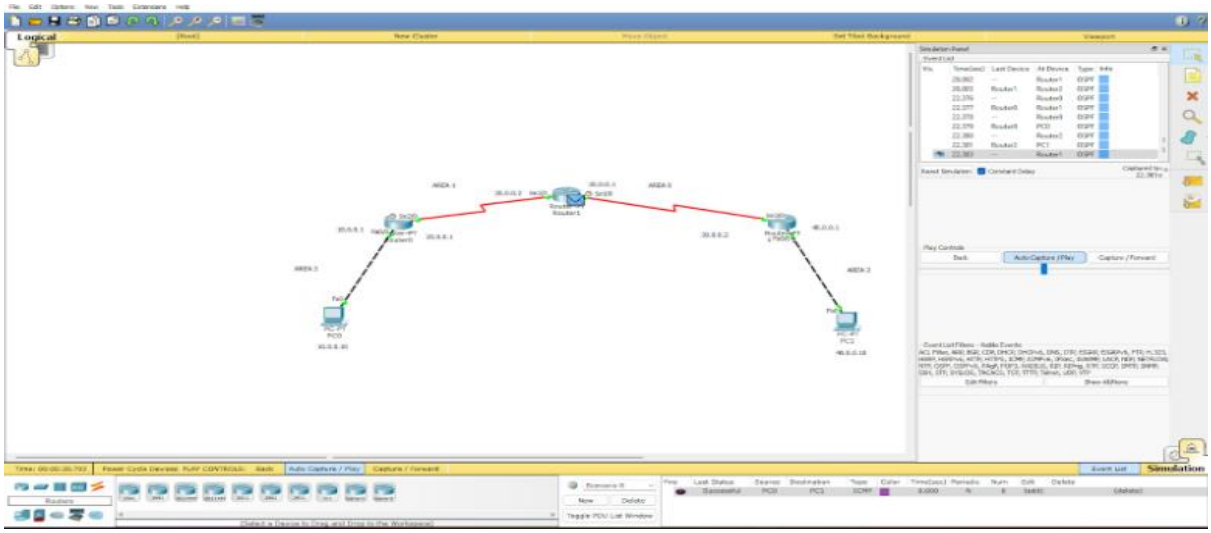
- Show ip route



Observation:

- OSPF is a link state routing protocol which is used to find the best path between source and destination router using its own SPF algorithm.
- This network is divided into 4 areas where area 0 is the backbone.
- After we make virtual link between the area which is not connected to backbone, we can ping messages successfully

Topology :



Output :