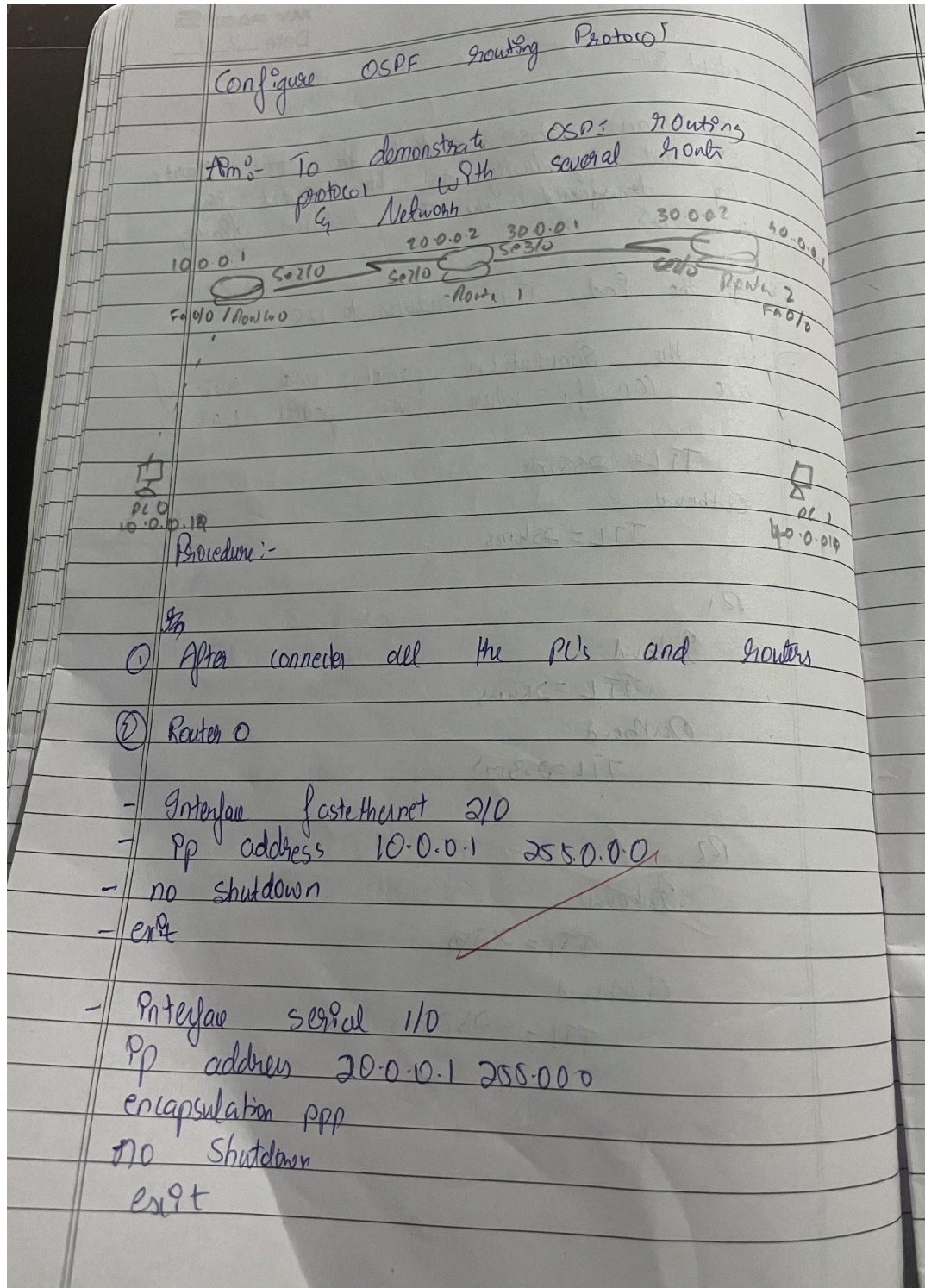


## Program 8

Aim: Configure OSPF routing protocol.

### Topology, Procedure and Observation:





Router 1

- Interface serial 1/0  
ip address 20.0.0.2 255.0.0.0  
encapsulation ppp  
no shutdown  
exit
- Interface serial 1/1  
ip address 30.0.0.1 255.0.0.0  
encapsulation ppp  
clock rate 64000  
exit

Router 2

- Interface serial 1/0  
ip address 30.0.0.2 255.0.0.0  
encapsulation ppp  
no shutdown  
exit

- ~~Interface fast ethernet 2/0  
ip address 40.0.0.1 255.0.0.0  
no shutdown  
exit~~



In Router RD

```
- Router ospf 1
- Router-id 1.1.1.1
- network 10.0.0.0 0.255.255.255 area 3
- network 20.0.0.0 0.255.255.255 area 1
```

Router 1

```
Router ospf 1
Router-id 2.2.2.2
network 20.0.0.0 0.255.255.255 area 1
network 30.0.0.0 0.255.255.255 area 0
```

Router 2

```
Router ospf 1
Router-id 3.3.3.3
network 20.0.0.0 0.255.255.255 area 0
network 40.0.0.0 0.255.255.255 area 2
```

In Router 0

Interface loopback 0

Ip add 172.16.1.252 255.255.0.0

no shutdown

In Router 1

Interface loopback 0

Ip add 172.16.1.254 255.255.0.0

no shutdown



In Router 2

Interface loopback 0

ip add 172.16.1.54 255.255.0.0  
no shutdown

Observation

C - connected, S - Static, R - RIP, M - Mobile, B - BGP

ND - EIGRP, EX - EIGRP external, O - OSPF

N1 - OSPF NSSA extend type 1, N2 - OSPF NSSA

r - candidate default

P - periodic downloaded static route

Ping 40.0.0.1

Reply from 40.0.0.1: bytes=32 time=5ms TTL=254

Sent=4 Received=4, Lost=0 (0% loss)

Q. 18/12/20

## Screen Shots:

