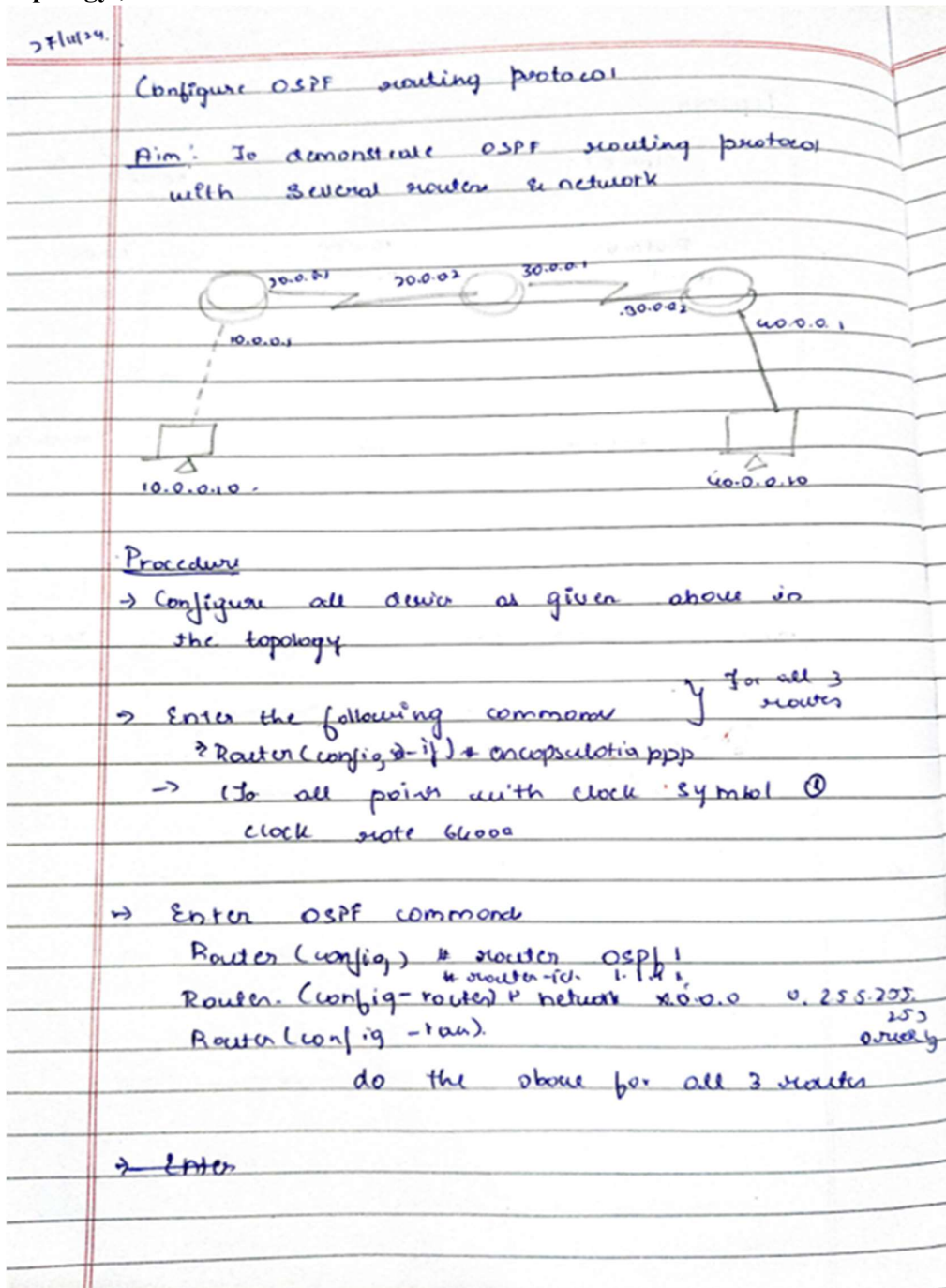


## Program 8

**Aim:** Configure OSPF routing protocol.

**Topology, Procedure and Observation:**



→ Enter loopback commands

Router (config)# interface loopback 0

Router (config-if)# ip add 192.16.1.252 255.255.0.0  
# no shut

Do similarly for all the 3 routers

→ Virtual link setup between router 0 and router 1

For R0

R0 (config)# router ospf 1

R0 (config-router)# area 1 virtual-link 2.2.2.2

For R1

R1 (config)# router ospf 1

R1 (config-router)# area 1 virtual-link 1.1.1.1

### Observation

Now all the 3 routers know each other.

on showing show ip route in R3

o 1A 10.0.0.0/8 via 30.0.0.1 Serial 2/0

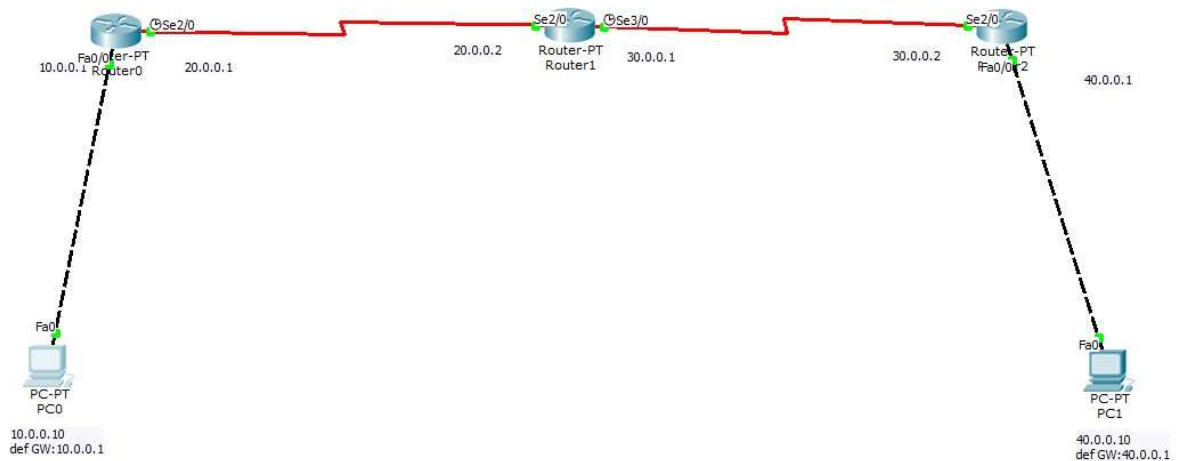
o 1A 20.0.0.0/8 via 30.0.0.1 Serial 2/0

c 30.0.0.0/8 is directly connected Serial 2/0

c 30.0.0.1/32 is directly connected Serial 2/0

c 192.16.0.0/16 is directly connected, fast ethernet

c 192.16.0.0/16 is directly connected, loopback



PC0

Physical Config Desktop Custom Interface

### Command Prompt

```
Pinging 40.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.10: bytes=32 time=7ms TTL=125
Reply from 40.0.0.10: bytes=32 time=7ms TTL=125
Reply from 40.0.0.10: bytes=32 time=8ms TTL=125

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 7ms, Maximum = 8ms, Average = 7ms

PC>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Reply from 40.0.0.10: bytes=32 time=9ms TTL=125
Reply from 40.0.0.10: bytes=32 time=7ms TTL=125
Reply from 40.0.0.10: bytes=32 time=6ms TTL=125
Reply from 40.0.0.10: bytes=32 time=6ms TTL=125

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 6ms, Maximum = 9ms, Average = 7ms

PC>
```