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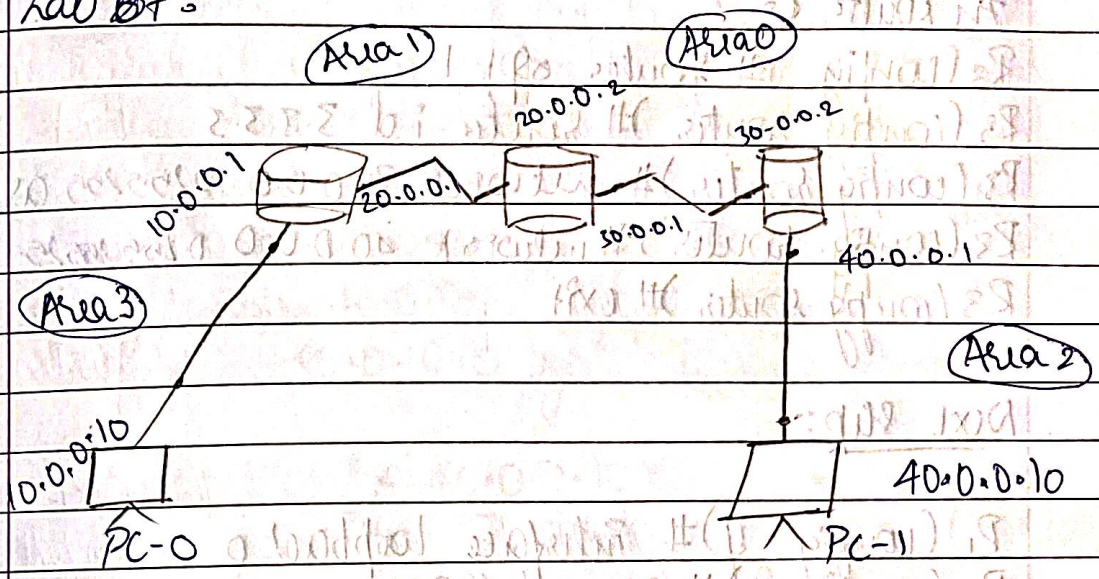
YOUVA

Experiment 7 :- Q-7

27/7/23 Lab 07 :-



Procedure :-

(i) Configure the PC's with IP address & gateway.
(ii) Configure each of the routers according to IP addres given.
(iii) Encapsulation ppp & clockrate need to be set as done in RIP protocol experiment.

In Router R_1,

```
R1(config)# router ospf 1
R1(config-router)# router-id 1.1.1.1
R1(config-router)# network 10.0.0.0 0.255.255.255 area
R1(config-router)# network 20.0.0.0 0.255.255.255 area 1
R1(config-router)# exit
```

In Router R_2,

```
R2(config)# router ospf 1
R1(config-router)# router id 2.2.2.2
R1(config-router)# network 20.0.0.0 0.255.255.255 area 1
R1(config-router)# network 30.0.0.0 0.255.255.255 area 0
R1(config-router)# exit
```

In Router R3,

```
R3(config)# router ospf 1
R3(config-router)# router-id 3.3.3.3
R3(config-router)# network 30.0.0.0 0.255.255.255 area 0
R3(config-router)# network 40.0.0.0 0.255.255.255 area
R3(config-router)# exit
```

Next step:-

```
R1(config-if)# interface loopback 0
R1(config-if)# ip address 172.16.1.252 255.255.0.0
R1(config-if)# no shutdown
```

```
R2(config-if)# interface loopback 0
R2(config-if)# ip address 172.16.1.253 255.255.0.0.0
R2(config-if)# no shutdown
```

```
R3(config-if)# interface loopback 0
R3(config-if)# ip address 172.16.1.254 255.255.0.0.0
R3(config-if)# no shutdown
```

Next step:-

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

```
R2(config)# router ospf 1
R2(config-router)# area 1 virtual-link 1.1.1.1
R2(config-router)# exit
```

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Output :-

Pinging 40.0.0.10 with 32 bytes of data
Request timed out
Reply from 40.0.0.10 : bytes = 32 time = 2ms TTL = 125
Reply from 40.0.0.10 : bytes = 32 time = 2ms TTL = 125
Reply from 40.0.0.10 bytes = 32 time = 2ms TTL = 125

Ping statistics for 40.0.0.10
Packets sent = 4, Recieved = 3, Lost = 1 (25% Loss)
Approx round trip times in milliseconds
min = 2ms, max = 10ms, Average = 7ms.