

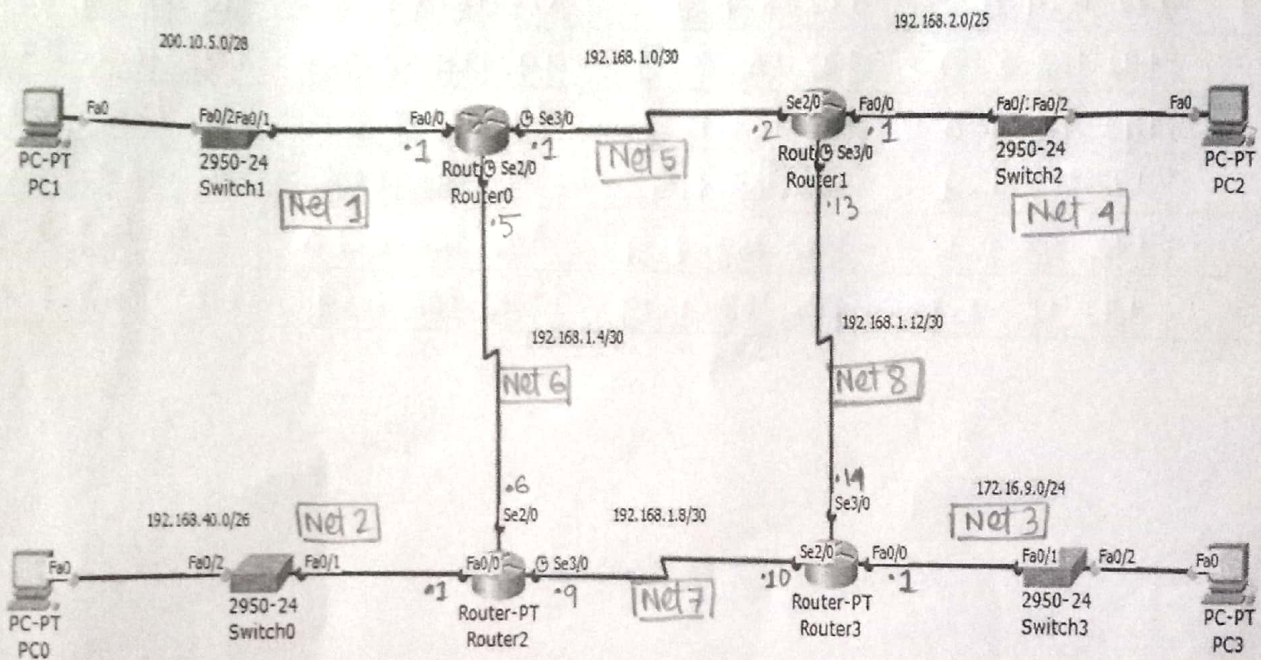
Assignment-1 (Set-A)

Static/Dynamic Routing Using

Packet Tracer

Instructions:

1. Configure the following topology using Dynamic Routing (RIP).
2. Test your connection to see, if all the subnets can transfer packets among them.



Task 1: Addressing Table

Device	Interface	IP address	Subnet Mask
Router0	Fa 0/0	200.10.5.1	255.255.255.240
	Serial 2/0	192.168.1.5	255.255.255.252
	Serial 3/0	192.168.1.1	255.255.255.252
Router1	Fa 0/0	192.168.2.1	255.255.255.128
	Serial 2/0	192.168.1.2	255.255.255.252
	Serial 3/0	192.168.1.13	255.255.255.252
Router2	Fa 0/0	192.168.40.1	255.255.255.192
	Serial 2/0	192.168.1.6	255.255.255.252
	Serial 3/0	192.168.1.9	255.255.255.252

Router3	Fa 0/0	172.16.9.1	255.255.255.0
	Serial 2/0	192.168.1.10	255.255.255.252
	Serial 3/0	192.168.1.14	255.255.255.252

Task 2: Subnet Information

Subnet Number	Subnet Address	First Usable Host Address	Last Usable Host Address	Gateway Address
1	200.10.5.0	200.10.5.1	200.10.5.14	200.10.5.1
2	192.168.40.0	192.168.40.1	192.168.40.62	192.168.40.1
3	172.16.9.0	172.16.9.1	172.16.9.254	172.16.9.1
4	192.168.2.0	192.168.2.1	192.168.2.126	192.168.2.1
5	192.168.1.0	192.168.1.1	192.168.1.2	192.168.1.1
6	192.168.1.4	192.168.1.5	192.168.1.6	192.168.1.5
7	192.168.1.8	192.168.1.9	192.168.1.10	192.168.1.9
8	192.168.1.12	192.168.1.13	192.168.1.14	192.168.1.13

Address Assignment

Router 0

Router > enable

Router # configure terminal

Router(config) # hostname R0

R0(config) # interface fa 0/0

R0(config-if) # no shutdown

R0(config-if) # ip address 200.10.5.1 255.255.255.240

R0(config-if) # exit

R0(config) # interface se 2/0

R0(config-if) # no shutdown

R0(config-if) # ip address 192.168.1.5 255.255.255.252

R0(config-if) # exit

R0(config) # interface se 3/0

R0(config-if) # no shutdown

R0(config-if) # ip address 192.168.1.1 255.255.255.252

R0(config-if) # exit

R0(config) # exit

R0 # wr

R0 # exit

R0 > exit

Router 1

```
Router > en
Router # conf t
Router (config) # hostname R1
R1 (config) # interface se 2/0
R1 (config-if) # no shutdown
                  # ip address 192.168.1.2 255.255.255.252
                  # exit
R1 (config) # interface se 3/0
R1 (config-if) # no shutdown
                  # ip address 192.168.1.13 255.255.255.252
                  # exit
R1 (config) # interface Fa0/0
R1 (config-if) # no shutdown
                  # ip address 192.168.2.1 255.255.255.128
                  # exit
R1 (config) # exit
R1 # wr
```

Router 2

```
Router > en
Router # conf t
Router (config) # hostname R2
R2 (config) # interface Fa 0/0
```


R2(config-if) # no shutdown

ip address 192.168.40.1 255.255.255.242
exit

R2(config) # interface se 2/0

R2(config-if) # no shutdown

ip address 192.168.1.6 255.255.255.252
exit

R2(config) # interface se 3/0

R2(config-if) # no shutdown

ip address 192.168.1.9 255.255.255.252
exit

R2(config) # exit

R2 # wr

Router 3

Router > en

Router # conf t

Router(config) # hostname R3

R3(config) # interface se 2/0

R3(config-if) # no shutdown

ip address 192.168.1.10 255.255.255.254
exit

R3(config) # interface se 3/0

R3(config-if) # no shutdown

ip addr 192.168.1.14 255.255.255.252
exit

R3(config) # interface Fa 0/0

no shutdown

ip address 172.16.9.1 255.255.255.0
exit

R3(config) # exit

R3 # wr

DHCP set-up

IV

Router 0

R0(config) # ip dhcp pool Net 1

R0(dhcp-config) # network 200.10.5.0 255.255.255.240

default-router 200.10.5.1

dns-server 8.8.8.8

exit

R0(config) # exit

R0 # wr

Router 1

R1(config) # ip dhcp pool Net 4

R1(dhcp-config) # network 192.168.2.0 255.255.255.128

default-router 192.168.2.1

dns-server 8.8.8.8

exit

R1(config) # exit

R1 # wr

Router 2

R2(config) # ip dhcp pool Net 2

R2(dhcp-config) # network 192.168.40.0 255.255.255.192

default-router 192.168.40.1

dns-server 8.8.8.8

exit

R2(config) # exit

R2 # wr

Router 3

⑤

R3(config) # ip dhcp pool Net3

R3(dhcp-config) # network 172.16.9.0 255.255.255.0

default-router 172.16.9.1

dns-server 8.8.8.8

exit

R3 (config) # exit

R3 # wr

RIP Configuration

Router 0

R0(config) # router rip

R0(config-router) # version 2

network 200.10.5.0

network 192.168.1.4

network 192.168.1.0

exit

R0(config) # exit

R0 # wr

Router 1

(YI)

P1 (config) # router rip

P1 (config-router) # version 2

network 192.168.1.0

network 192.168.1.12

network 192.168.2.0

exit

P1 (config) # exit

P1 # wr

Router 2

P2 (config) # router rip

P2 (config-router) # version 2

network 192.168.40.0

network 192.168.1.4

network 192.168.1.8

exit

P1 (config) # exit

P1 # wr

Router 3

(VII)

P3 (config) # router rip

P3 (config-router) # version 2

network 192.168.1.8

network 192.168.1.12

network 172.16.9.0

exit

P3 (config) # exit

P3 # wr

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