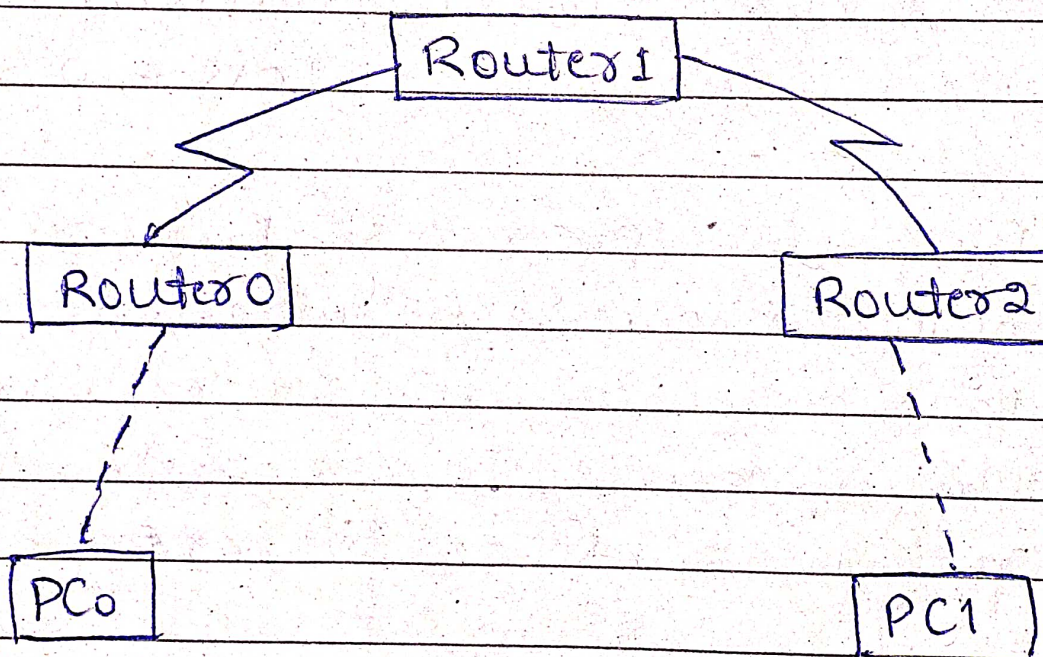MD YASEEN AHMED

1BM19CS404.

01. Program No. 03: configuring default
Route to Router.

- Topology:

Observation: pinging PC1 from PC0
works unexpected.

Steps: 01 Three Routers & 2 PC's are connected as shown in the topology above.

02 Pinging PC1 from PC0 shows destination host unreachable.

03 Adding static routes to routers using 'ip route <dest> <subnet mask> <next hop> in enable, config terminal mode.

PC0 to Router1

```
>enable
# config terminal
(config)# interface FA 0/0
(config)# ip address 10.0.0.10 255.0.0.0
(config-if)# no shut
```

- Initial ping :

```
> ping 40.0.0.1
```

pinging 40.0.0.1 with 32 bytes of data

Reply from 10.0.0.10 Destination host unreachable.

― " ―

― " ―

Request timed out.

ping statistics :

packets : sent = 4 , Received = 0
Lost = 4 (100%)

c Adding static Routes

Route 0 :

Router(config) # ip route 30.0.0.0
255.0.0.0   20.0.0.2
Router (config) # ip route 40.0.0.0
255.0.0.0   20.0.0.2
Router # show ip route

C   10.0.0.0/8 is directly connected FE 0/0
C   20.0.0.0/8 is directly connected SE0/0
S   30.0.0.0/8 [1/0] via 20.0.0.2
S   40.0.0.0/8 [1/0] via 20.0.0.2

Now the pinging works as expected.

cmd
> ping 40.0.0.1

pinging 40.0.0.1 with 32 bytes of data

Reply from 40.0.0.1 : bytes=32 time=18ms
        TTL = 125
        ——— " ——
        ——— " ——

ping statistics for 40.0.0.1

packets sent =4, received =4, Lost=0 (0%)
Approx round trip time.

    Mn = 2ms , Max = 20ms , Avg =10ms