EXPERIMENT-2

Q)Configure IP address to routers in packet tracer. Explore the following messages: ping responses, destination unreachable, request timed out, reply

PROGRAM 2.1

2) Configure IP address to router, state route to router.

→ Rewrite the question

I Steps:-

① Add 2 Pc's and connect them to a generic router.

② Configure the Pc's by setting their IP address to 10.0.0.1 and 20.0.0.1 respectively

③ Set the gateways as 10.0.0.2 and 20.0.0.2 respectively

④ Go to the CMD line interface in the router and enter 'no' for continue with config dialogue

⑤ Type 'config terminal' & enter twice

⑥ Type 'interface fast ethernet 0/0' & enter

⑦ Type ip address 10.0.0.2 255.0.0.0

⑧ Type 'no shut' and the connection is now established

⑨ Repeat steps 4-8 for the other PC 20.0.0.1

⑩ Repeat steps ① to ⑨ for PC3 and PC4

⑪ Connect router 1 & router and via a route 3.

⑫ All router to router connection via Service DTE & PC to router via copper cross-over

⑬ Go to the router 1 CLI & type the following
enable ↵
config t ↵
interface Serial 3/0 ↵

(14) Go to the router 3 CLI & type :-
   enable d
   config t d
   interface serial 2/0 d
   ip address S0.0.0.1 255.0.0.0 d
   no shut d

   The connections b/w Router 1&3 is green now.

(15) Repeat Steps (13) & (14) for router 2 to 3 similarly.

(16)(18) Go to router 1 CLI & type show ip router
   It shows only the direct connections.

(17) We statically determine routes to the PC's by typing
   the following in the CLI (for router 1):
   ip route 30.0.0.0 255.0.0.0 50.0.0.1d
   ip route 40.0.0.0 255.0.0.0 60.0.0.1d
   (for router 2) :
   ip route 10.0.0.0 255.0.0.0 60.0.0.1d
   ip route 20.0.0.0 255.0.0.0 60.0.0.1d
   (for router 3) :
   ip route 10.0.0.0 255.0.0.0 50.0.0.1
   ip route 20.0.0.0 255.0.0.0 50.0.0.1
   ip route 30.0.0.0 255.0.0.0 60.0.0.1
   ip route 40.0.0.0 255.0.0.0 60.0.0.1

(18) Now data transfer b/w PC's is successful

(19) Before statically connecting routes
   Ping b/w PC's not directly connected unsuccessful.
   PC > Ping 30.0.0.1
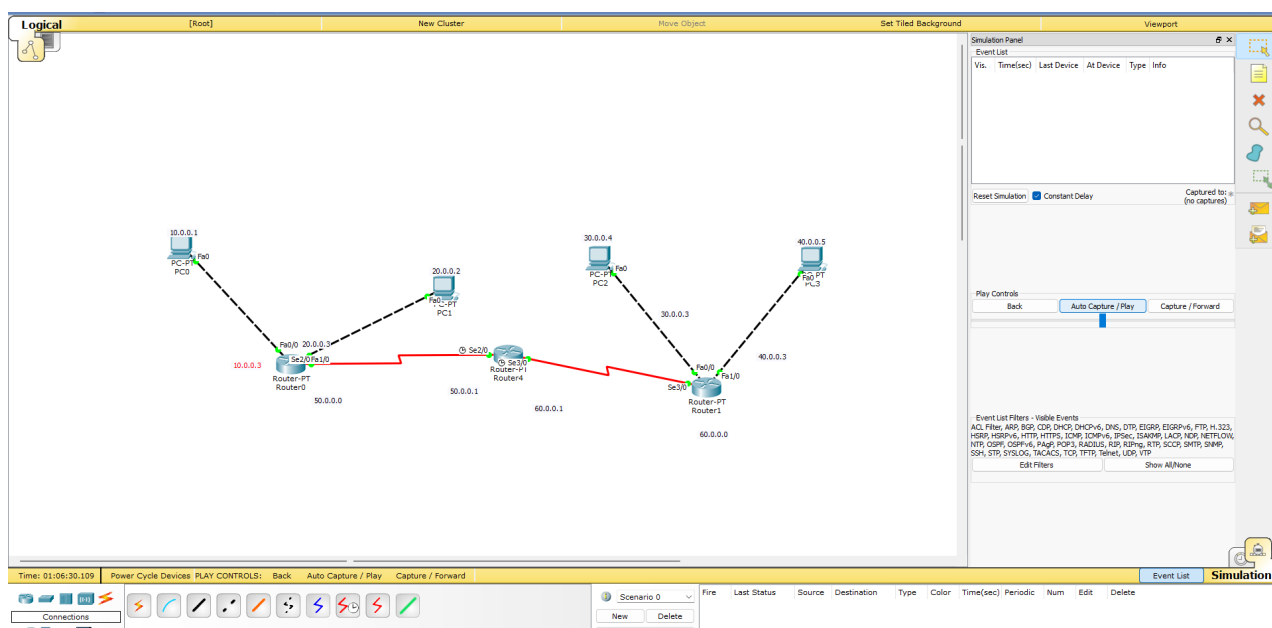   Pinging 30.0.0.1 with 32 bytes of data

   Reply for 20.0.0.2 : Destination host unreached
   Reply for 20.0.0.2 : Destination host unreached
   Reply for 20.0.0.2 : Destination host unreached
   Reply for 20.0.0.2 : Destination host unreached.

TOPOLOGY &OUTPUT

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Command Prompt

Packet Tracer PC Command Line 1.0
PC>PING 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=2ms TTL=127

Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 2ms, Average = 0ms

PC>
```