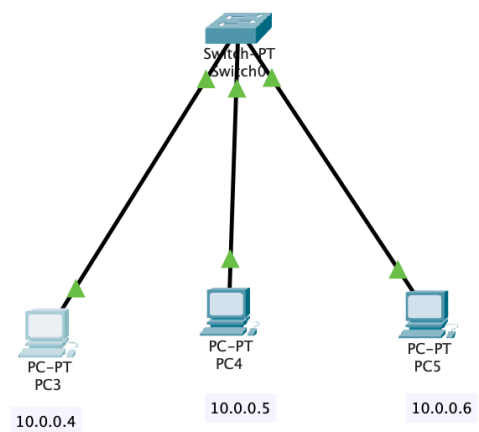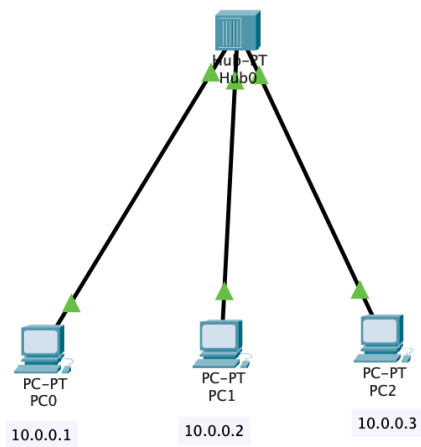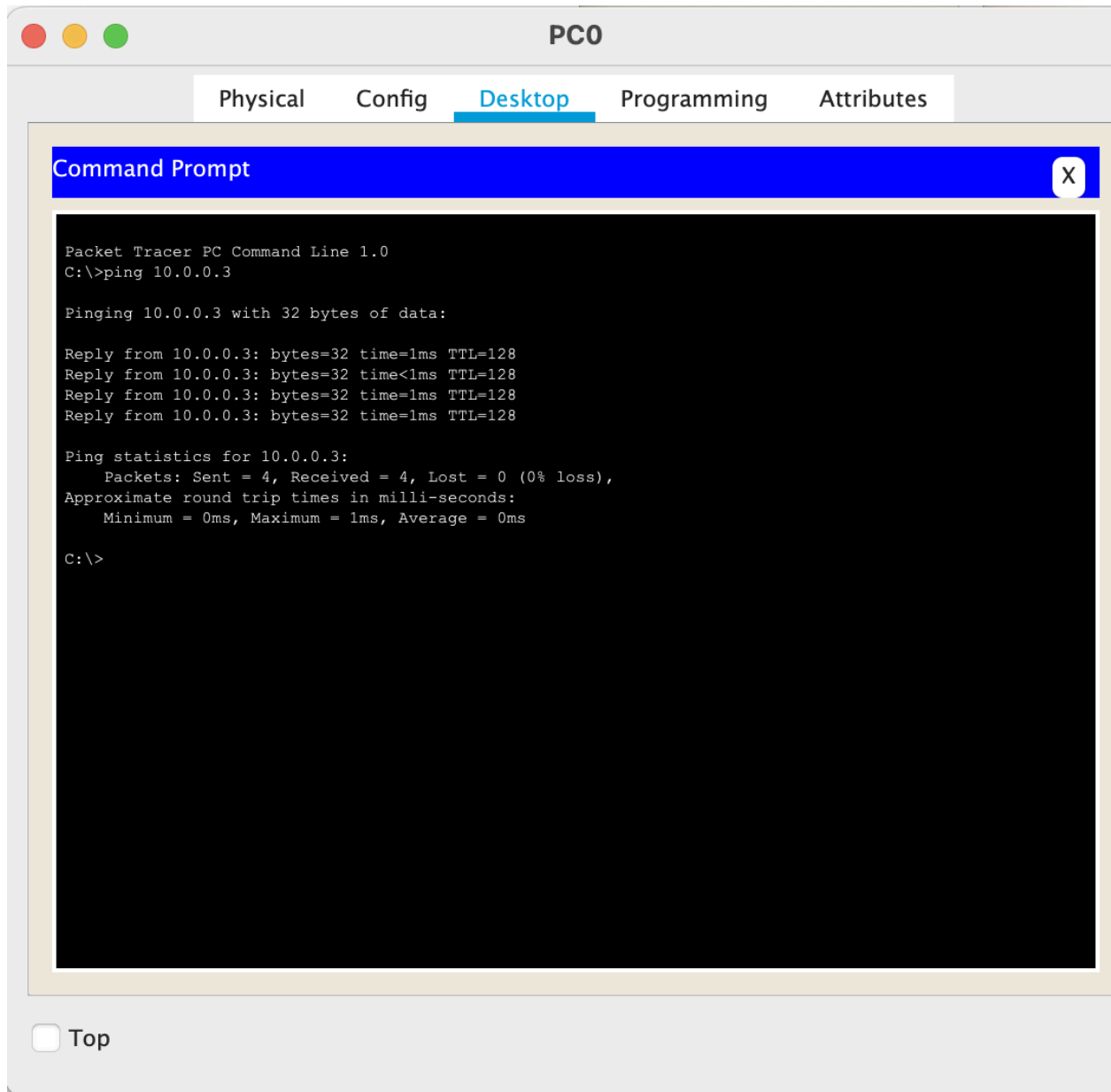Experiment 1:
Q)CREATE A TOPOLOGY AND STIMULATE SENDING A SIMPLE PDU FROM SOURCE TO DESTINATION USING HUBS AND SWITCHES

Hubs and switches

Hub-PT
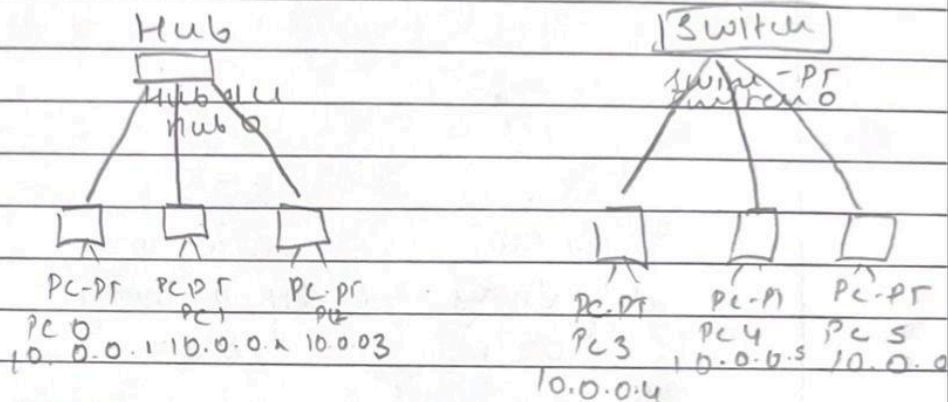Hub0

Switch-PT
Switch0

PC-PT
PC0

PC-PT
PC1

PC-PT
PC2

PC-PT
PC3

PC-PT
PC4

PC-PT
PC5

10.0.0.1

10.0.0.2

10.0.0.3

10.0.0.4

10.0.0.5

10.0.0.6

PC0

Physical Config **Desktop** Programming Attributes

Command Prompt   X

```
Packet Tracer PC Command Line 1.0
C:\>ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes of data:

Reply from 10.0.0.3: bytes=32 time=1ms TTL=128
Reply from 10.0.0.3: bytes=32 time<1ms TTL=128
Reply from 10.0.0.3: bytes=32 time=1ms TTL=128
Reply from 10.0.0.3: bytes=32 time=1ms TTL=128

Ping statistics for 10.0.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

☐ Top

Q) Create topology & stimulate sending a simple PDU from source to destination and station as connecting devices using hub.

Topology: PC connected to server using crossover ethernet cable

Observation: Direct connection allows PC to communicate with server in small networks such as filling service request.

Hub   Switch

Hub all   Switch - PC
Hub 0   Switch 0

PC-PT   PC-PT   PC-PT   PC-PT   PC-PT   PC-PT
PC 0   PC 1   PC 2   PC 3   PC 4   PC 5
10.0.0.1 10.0.0.2 10.0.03   10.0.0.4 10.0.0.5 10.0.0

Aim: To create simple network containing 3 PC's connected to hub & switch. This will need to observe behaviour the data.

Topology:
1) Hub network: 3 PC's connected to hub
2) Switch: 3 PCs connected to switch using straight through ethernet cable.

Procedure Observation:
i) Add the hub broadcasts packets to all devices.

9/10/24

ii) the switch towards packets only to the appropriate device.