

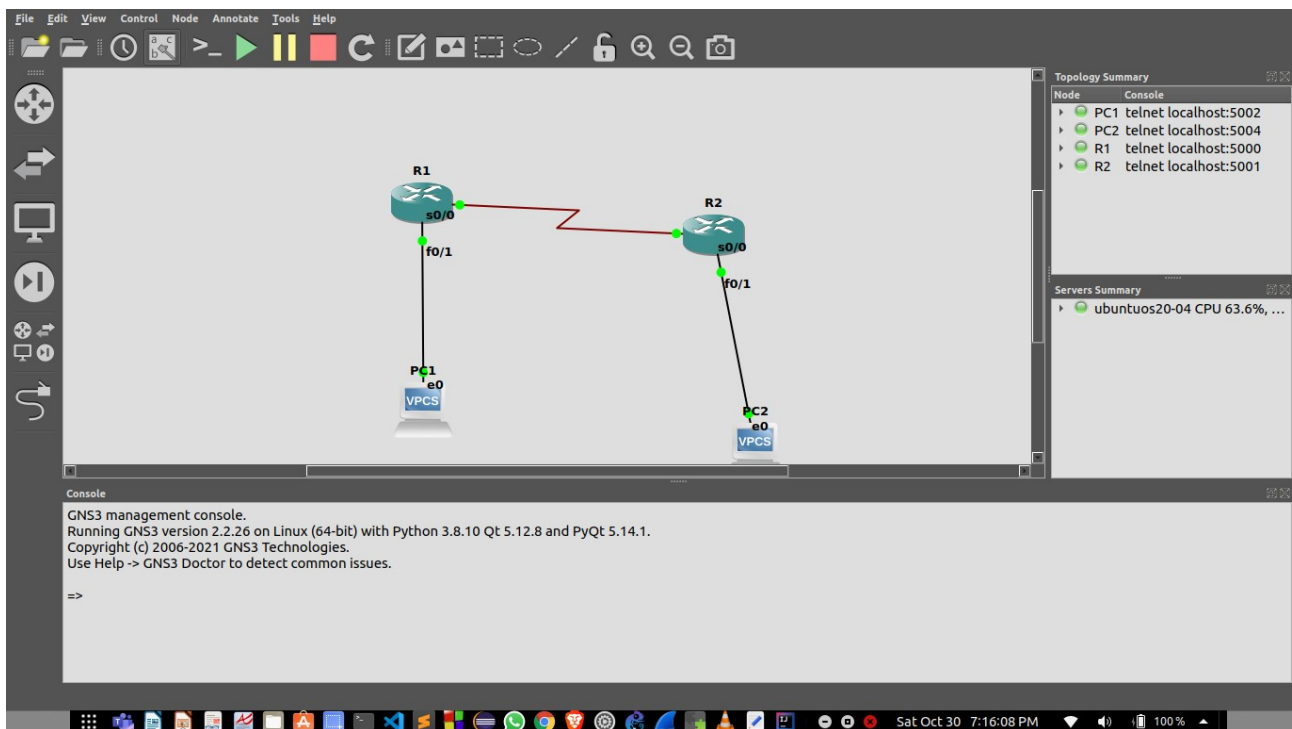
190905514  
ROLLNO : 62

MOHAMMAD TOFIK  
SECTION : C

BATCH : C3  
SEM : FIFTH

### -: CN-LAB-4 :-

#### Topology Structure :



## Router 1 : Configuration

```
R1
R1#enable
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#inter f0/1
R1(config-if)#ip address 10.0.0.1 255.255.25.0
Bad mask 0xFFFF1900 for address 10.0.0.1
R1(config-if)#ip address 10.0.0.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#
*Mar 1 00:01:59.023: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
*Mar 1 00:02:00.023: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
R1(config)#inter s0/0
R1(config-if)#ip address 20.0.0.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
*Mar 1 00:03:05.491: %LINK-3-UPDOWN: Interface Serial0/0, changed state to up
*Mar 1 00:03:06.491: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up
R1(config-if)#exit
R1(config)#exit
R1#
*Mar 1 00:03:16.271: %SYS-5-CONFIG_I: Configured from console by console
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ip rou
*Mar 1 00:03:27.319: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to down
R1(config)#ip route 30.0.0.0 255.255.255.0 20.0.0.2
```

```
R1
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#
*Mar 1 00:01:59.023: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
*Mar 1 00:02:00.023: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
R1(config)#inter s0/0
R1(config-if)#ip address 20.0.0.1 255.255.255.0
R1(config-if)#no shutdown
R1(config-if)#exit
*Mar 1 00:03:05.491: %LINK-3-UPDOWN: Interface Serial0/0, changed state to up
*Mar 1 00:03:06.491: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up
R1(config-if)#exit
R1(config)#exit
R1#
*Mar 1 00:03:16.271: %SYS-5-CONFIG_I: Configured from console by console
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ip rou
*Mar 1 00:03:27.319: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to down
R1(config)#ip route 30.0.0.0 255.255.255.0 20.0.0.2
R1(config)#
*Mar 1 00:06:37.319: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed state to up
R1(config)#exit
R1#
*Mar 1 00:22:05.783: %SYS-5-CONFIG_I: Configured from console by console
R1#
```

## Router 2 : Configuration

```
R2
nged state to down
R2#enable
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#inter f0/1
R2(config-if)#ip address 30.0.0.1 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#exi
*Mar  1 00:05:38.051: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
*Mar  1 00:05:39.051: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, cha
nged state to up
R2(config-if)#exit
R2(config)#inter s0/0
R2(config-if)#ip address 20.0.0.2 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#exit
*Mar  1 00:06:26.059: %LINK-3-UPDOWN: Interface Serial0/0, changed state to up
*Mar  1 00:06:27.059: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0, changed s
tate to up
R2(config-if)#exit
R2(config)#exit
R2#con
*Mar  1 00:06:38.783: %SYS-5-CONFIG_I: Configured from console by console
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#ip route 10.0.0.0 255.255.255.0 20.0.0.1
R2(config)#exit
R2#
*Mar  1 00:22:51.387: %SYS-5-CONFIG_I: Configured from console by console
R2#
```

## PC1 : Configuration

```
PC1
```

```
NAME      : PC1[1]
IP/MASK    : 0.0.0.0/0
GATEWAY    : 0.0.0.0
DNS        :
MAC        : 00:50:79:66:68:00
LPORT     : 10014
RHOST:PORT : 127.0.0.1:10015
MTU        : 1500

PC1> ip 20.0.0.2/8 20.0.0.1
Checking for duplicate address...
PC1 : 20.0.0.2 255.0.0.0 gateway 20.0.0.1

PC1> ping 20.0.0.2

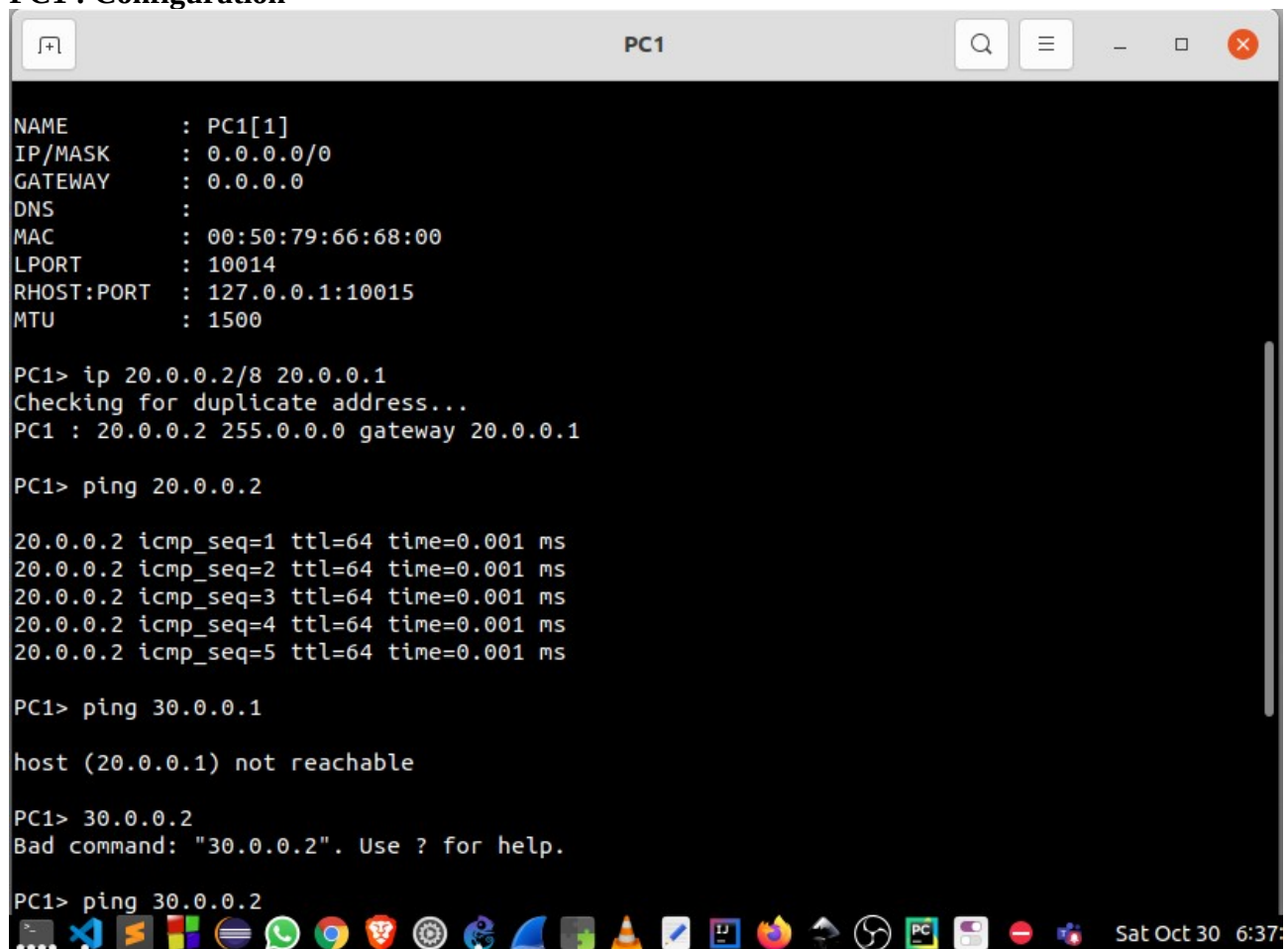
20.0.0.2 icmp_seq=1 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=2 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=3 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=4 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=5 ttl=64 time=0.001 ms

PC1> ping 30.0.0.1

host (20.0.0.1) not reachable

PC1> 30.0.0.2
Bad command: "30.0.0.2". Use ? for help.

PC1> ping 30.0.0.2
```



```
PC1
```

```
20.0.0.2 icmp_seq=1 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=2 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=3 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=4 ttl=64 time=0.001 ms
20.0.0.2 icmp_seq=5 ttl=64 time=0.001 ms

PC1> ping 30.0.0.1

host (20.0.0.1) not reachable

PC1> 30.0.0.2
Bad command: "30.0.0.2". Use ? for help.

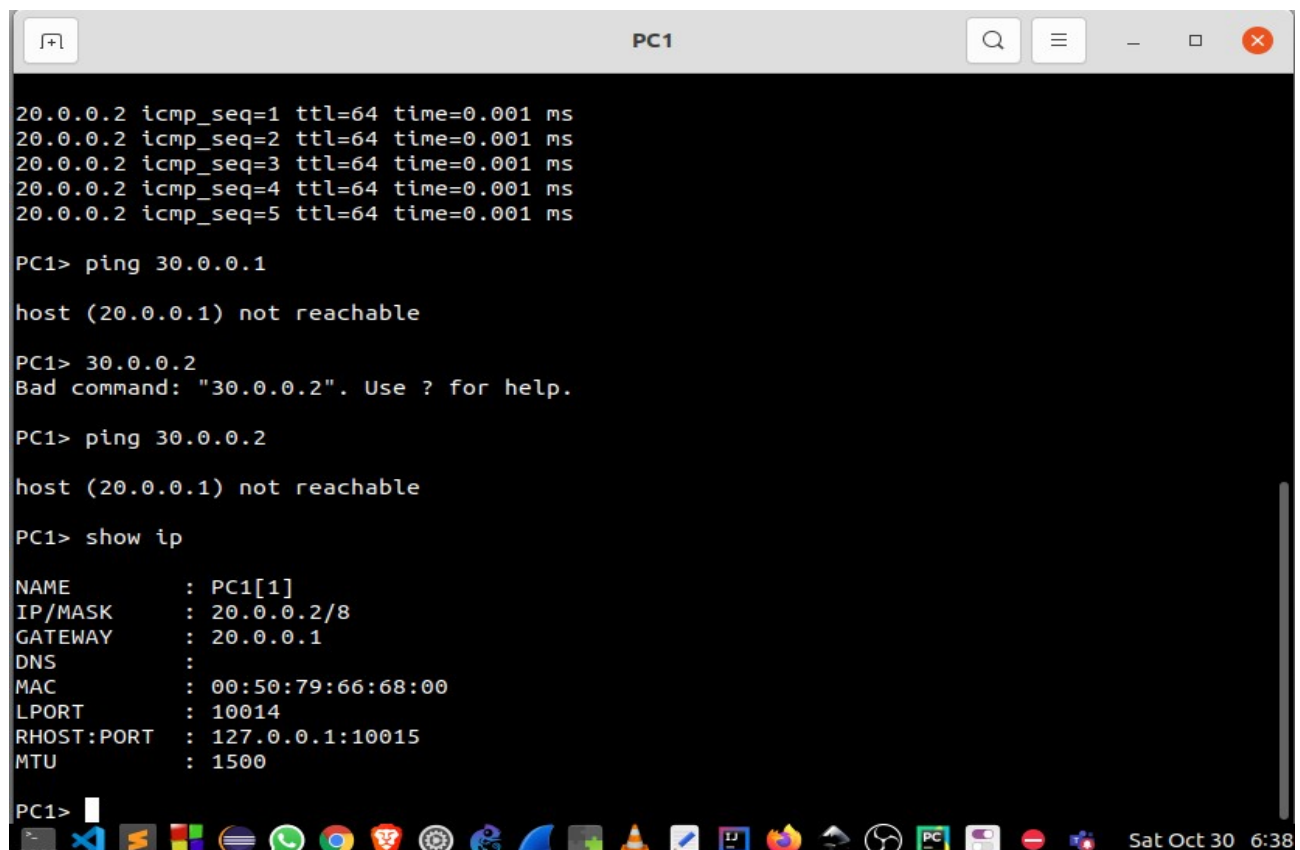
PC1> ping 30.0.0.2

host (20.0.0.1) not reachable

PC1> show ip

NAME      : PC1[1]
IP/MASK    : 20.0.0.2/8
GATEWAY    : 20.0.0.1
DNS        :
MAC        : 00:50:79:66:68:00
LPORT     : 10014
RHOST:PORT : 127.0.0.1:10015
MTU        : 1500

PC1>
```



## PC2 : Configuration

```
PC2> show ip

NAME       : PC2[1]
IP/MASK    : 0.0.0.0/0
GATEWAY    : 0.0.0.0
DNS        :
MAC        : 00:50:79:66:68:01
LPORT     : 10016
RHOST:PORT : 127.0.0.1:10017
MTU        : 1500

PC2> ip 30.0.0.2/8 30.0.0.1
Checking for duplicate address...
PC2 : 30.0.0.2 255.0.0.0 gateway 30.0.0.1

PC2> 30.0.0.2 255.255.255.0
Bad command: "30.0.0.2 255.255.255.0". Use ? for help.

PC2> ping 20.0.0.1

84 bytes from 20.0.0.1 icmp_seq=1 ttl=254 time=19.897 ms
84 bytes from 20.0.0.1 icmp_seq=2 ttl=254 time=10.071 ms
84 bytes from 20.0.0.1 icmp_seq=3 ttl=254 time=5.553 ms
84 bytes from 20.0.0.1 icmp_seq=4 ttl=254 time=5.742 ms
84 bytes from 20.0.0.1 icmp_seq=5 ttl=254 time=5.364 ms

PC2> ping 10.0.0.1

84 bytes from 10.0.0.1 icmp_seq=1 ttl=254 time=1.379 ms
84 bytes from 10.0.0.1 icmp_seq=2 ttl=254 time=5.232 ms
```

```
PC2> ping 10.0.0.1

84 bytes from 10.0.0.1 icmp_seq=1 ttl=254 time=1.379 ms
84 bytes from 10.0.0.1 icmp_seq=2 ttl=254 time=5.232 ms
84 bytes from 10.0.0.1 icmp_seq=3 ttl=254 time=10.538 ms
84 bytes from 10.0.0.1 icmp_seq=4 ttl=254 time=6.098 ms
84 bytes from 10.0.0.1 icmp_seq=5 ttl=254 time=5.533 ms

PC2> sho ip

NAME       : PC2[1]
IP/MASK    : 30.0.0.2/8
GATEWAY    : 30.0.0.1
DNS        :
MAC        : 00:50:79:66:68:01
LPORT     : 10016
RHOST:PORT : 127.0.0.1:10017
MTU        : 1500

PC2> show ip

NAME       : PC2[1]
IP/MASK    : 30.0.0.2/8
GATEWAY    : 30.0.0.1
DNS        :
MAC        : 00:50:79:66:68:01
LPORT     : 10016
RHOST:PORT : 127.0.0.1:10017
MTU        : 1500
```



## CapturePC1 :

Wireshark interface showing a packet capture on interface -. The capture filter is 'Apply a display filter ... <Ctrl-/>'. The packet list shows 8 packets, with packet 4 highlighted. The packet details pane shows the selected packet (Frame 1) and its structure: Ethernet II, Src: MaxMedia\_ae:00:01 (c4:01:42:ae:00:01), Dst: MaxMedia\_ae:00:01 (c4:01:42:ae:00:01), Configuration Test Protocol (loopback), and Data (40 bytes). The packet bytes pane shows the raw data in hexadecimal and ASCII.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	MaxMedia_ae:00:01	MaxMedia_ae:00:01	LOOP	60	Reply
2	9.021575	MaxMedia_ae:00:01	DEC-MOP-Remote-Cons...	0x6002	77	DEC DNA Remote Console
3	10.001331	MaxMedia_ae:00:01	MaxMedia_ae:00:01	LOOP	60	Reply
4	15.554197	MaxMedia_ae:00:01	CDP/VTP/DTP/PAgP/UD...	CDP	359	Device ID: R1 Port ID: FastEthernet0/1
5	19.997759	MaxMedia_ae:00:01	MaxMedia_ae:00:01	LOOP	60	Reply
6	30.003567	MaxMedia_ae:00:01	MaxMedia_ae:00:01	LOOP	60	Reply
7	40.004087	MaxMedia_ae:00:01	MaxMedia_ae:00:01	LOOP	60	Reply
8	50.002138	MaxMedia_ae:00:01	MaxMedia_ae:00:01	LOOP	60	Reply

Frame 1: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface -, id 0  
Ethernet II, Src: MaxMedia\_ae:00:01 (c4:01:42:ae:00:01), Dst: MaxMedia\_ae:00:01 (c4:01:42:ae:00:01)  
Configuration Test Protocol (loopback)  
Data (40 bytes)

0000 c4 01 42 ae 00 01 c4 01 42 ae 00 01 90 00 00 00 ..B....B.....  
0010 01 00 00 00 00 00 00 00 00 00 00 00 00 00 .....  
0020 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....  
0030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....

## Capture PC2 :

Wireshark interface showing a packet capture on interface -. The capture filter is 'Apply a display filter ... <Ctrl-/>'. The packet list shows 7 packets, with packet 5 highlighted. The packet details pane shows the selected packet (Frame 1) and its structure: Ethernet II, Src: c4:02:42:be:00:01 (c4:02:42:be:00:01), Dst: c4:02:42:be:00:01 (c4:02:42:be:00:01), Configuration Test Protocol (loopback), and Data (40 bytes). The packet bytes pane shows the raw data in hexadecimal and ASCII.

No.	Time	Source	Destination	Protocol	Length	Info
2	9.994049	c4:02:42:be:00:01	c4:02:42:be:00:01	LOOP	60	Reply
3	19.998013	c4:02:42:be:00:01	c4:02:42:be:00:01	LOOP	60	Reply
4	29.992225	c4:02:42:be:00:01	c4:02:42:be:00:01	LOOP	60	Reply
5	35.475748	c4:02:42:be:00:01	CDP/VTP/DTP/PAgP/UD...	CDP	359	Device ID: R2 Port ID: FastEthernet0/1
6	39.994960	c4:02:42:be:00:01	c4:02:42:be:00:01	LOOP	60	Reply
7	49.995031	c4:02:42:be:00:01	c4:02:42:be:00:01	LOOP	60	Reply

Frame 1: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface -, id 0  
Ethernet II, Src: c4:02:42:be:00:01 (c4:02:42:be:00:01), Dst: c4:02:42:be:00:01 (c4:02:42:be:00:01)  
Configuration Test Protocol (loopback)  
Data (40 bytes)

0000 c4 02 42 be 00 01 c4 02 42 be 00 01 90 00 00 00 ..B....B.....  
0010 01 00 00 00 00 00 00 00 00 00 00 00 00 00 .....  
0020 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....  
0030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....

