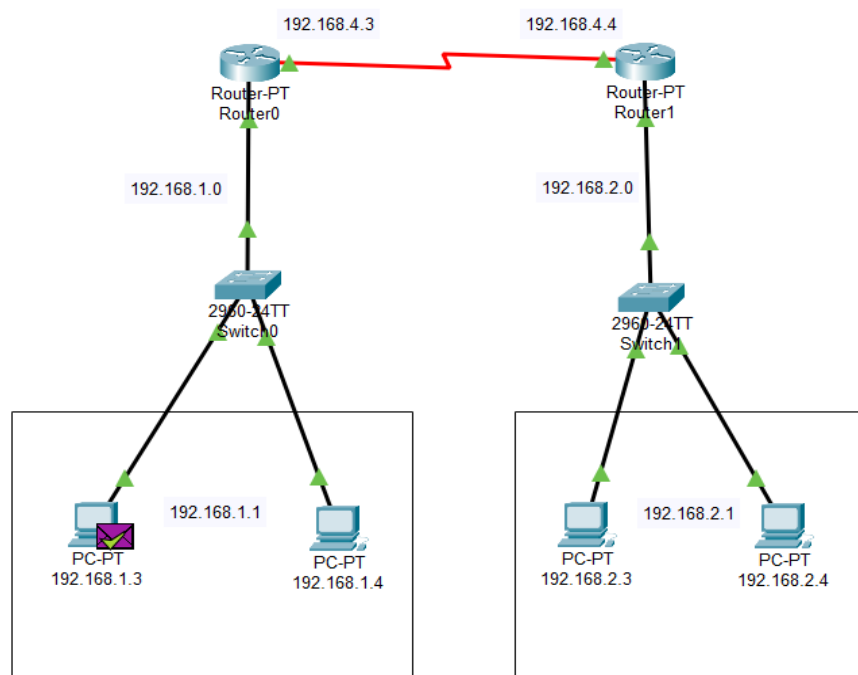## Lab Practical #11:

Study the concept of routing using packet tracer. (Dynamic Routing)
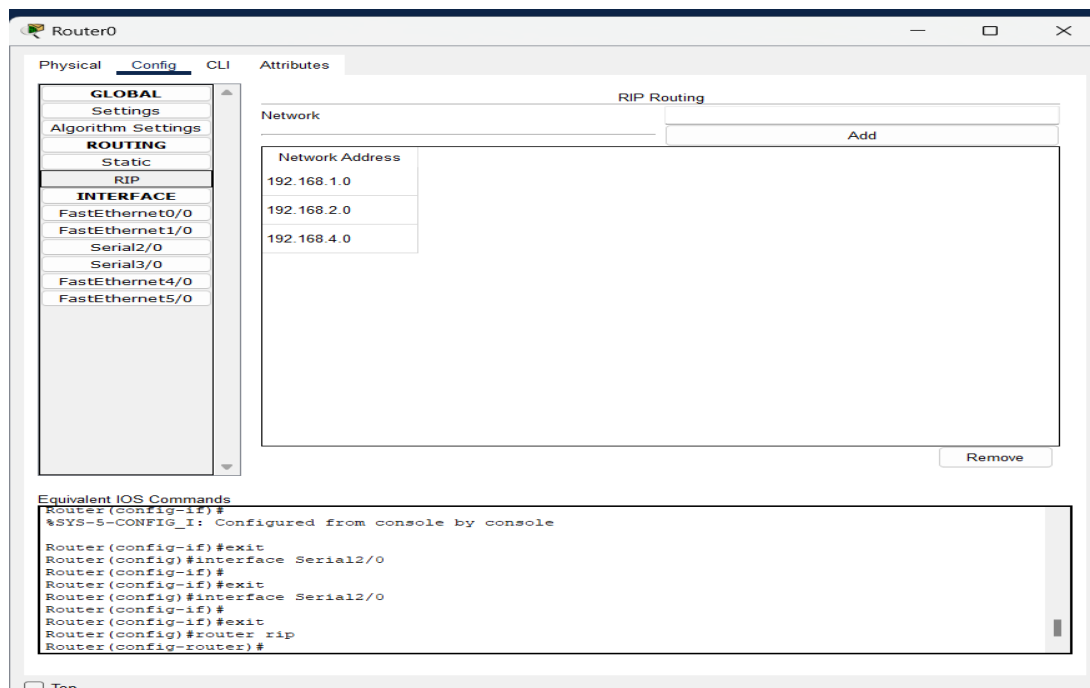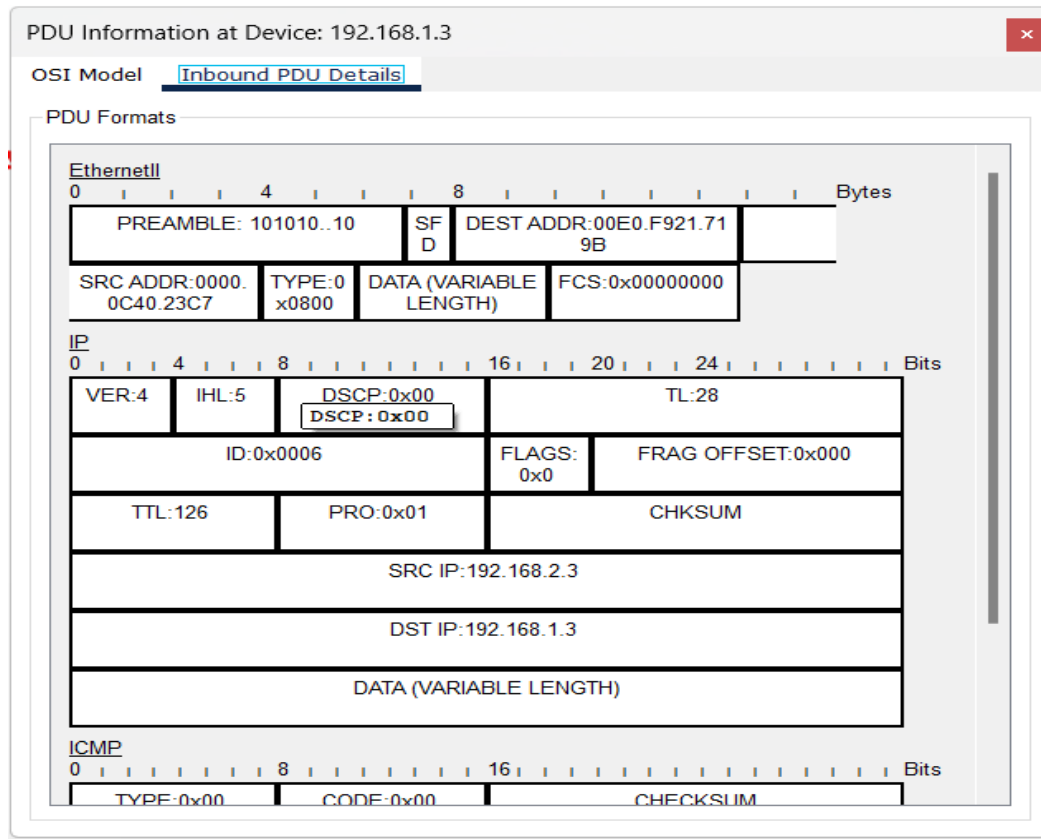
Practical Assignment #11:

1. Connect the two different networks based on the calculated IP addresses and subnet using a packet tracer.
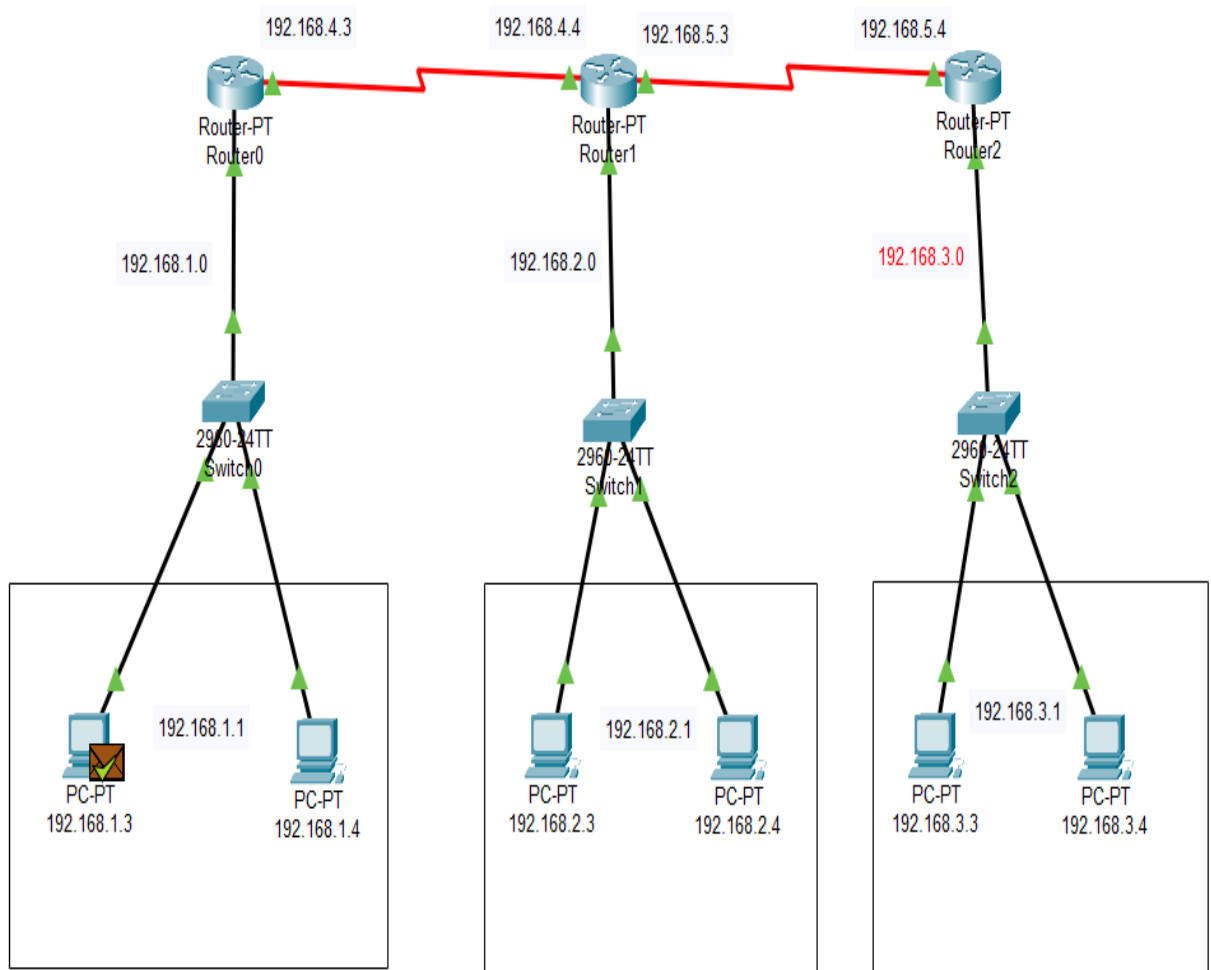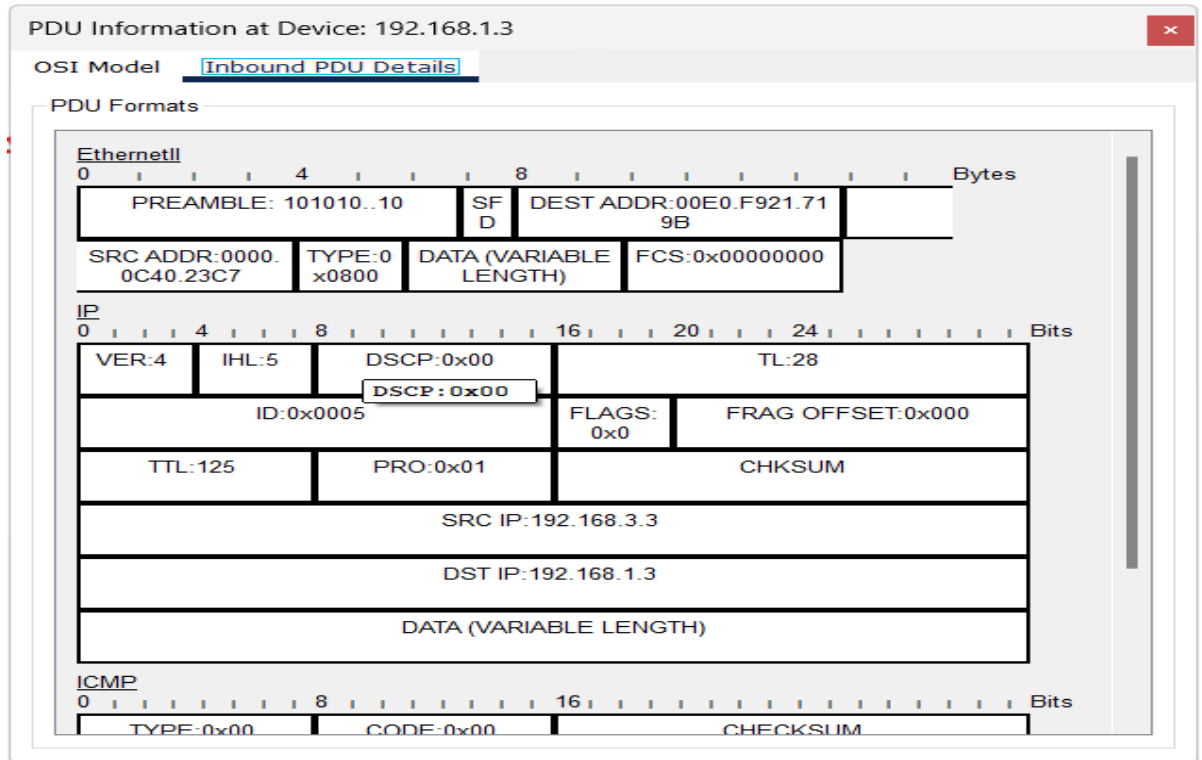   **Dynamic:**

Date: 20/09/2024

PDU Information at Device: 192.168.1.3

OSI Model   Inbound PDU Details

PDU Formats

EthernetII

| 0 | 4 | 8 | | Bytes |

| PREAMBLE: 101010..10 | SFD | DEST ADDR:00E0.F921.71 9B | |
| SRC ADDR:0000. 0C40.23C7 | TYPE:0 x0800 | DATA (VARIABLE LENGTH) | FCS:0x00000000 |

IP

VER:4	IHL:5	DSCP:0x00 DSCP: 0x00	TL:28
ID:0x0006		FLAGS: 0x0	FRAG OFFSET:0x000
TTL:126	PRO:0x01		CHKSUM
SRC IP:192.168.2.3			
DST IP:192.168.1.3			
DATA (VARIABLE LENGTH)			

ICMP

| 0 | 8 | 16 | Bits |
| TYPE:0x00 | CODE:0x00 | CHECKSUM | |

Router0

Physical   Config   CLI   Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0

RIP Routing

Network   Add

| Network Address |
| 192.168.1.0 |
| 192.168.2.0 |
| 192.168.4.0 |

Remove

Equivalent IOS Commands

```
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console

Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#
```

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2. Connect the three different networks based on the calculated IP addresses and subnet using a packet tracer.

Dynamic:

Date: 20/09/2024

PDU Information at Device: 192.168.1.3

OSI Model   Inbound PDU Details

PDU Formats

EthernetII

0			4				8							Bytes

| PREAMBLE: 101010..10 | SF D | DEST ADDR:00E0.F921.71 9B | |
| SRC ADDR:0000. 0C40.23C7 | TYPE:0 x0800 | DATA (VARIABLE LENGTH) | FCS:0x00000000 |

IP

| 0 | | | 4 | | | | 8 | | | | | | | 16 | | | | 20 | | | 24 | | | | | | | Bits |

VER:4	IHL:5	DSCP:0x00	TL:28
		DSCP:0x00	
ID:0x0005	FLAGS: 0x0	FRAG OFFSET:0x000
TTL:125	PRO:0x01	CHKSUM
SRC IP:192.168.3.3
DST IP:192.168.1.3
DATA (VARIABLE LENGTH)

ICMP

| 0 | | | | | | | 8 | | | | | | | 16 | | | | | | | | | | | | | Bits |

| TYPE:0x00 | CODE:0x00 | CHECKSUM |

Router0

Physical   Config   CLI   Attributes

| GLOBAL |
| Settings |
| Algorithm Settings |
| **ROUTING** |
| Static |
| RIP |
| **INTERFACE** |
| FastEthernet0/0 |
| FastEthernet1/0 |
| Serial2/0 |
| Serial3/0 |
| FastEthernet4/0 |
| FastEthernet5/0 |

RIP Routing

Network

Add

Network Address

192.168.1.0

192.168.2.0

192.168.3.0

192.168.4.0

192.168.5.0

Remove

Equivalent IOS Commands

```
Router(config-router)#network 192.168.3.0
Router(config-router)#network 192.168.4.0
Router(config-router)#network 192.168.5.0
Router(config-router)#
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#
Router(config)#router rip
Router(config-router)#
```

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