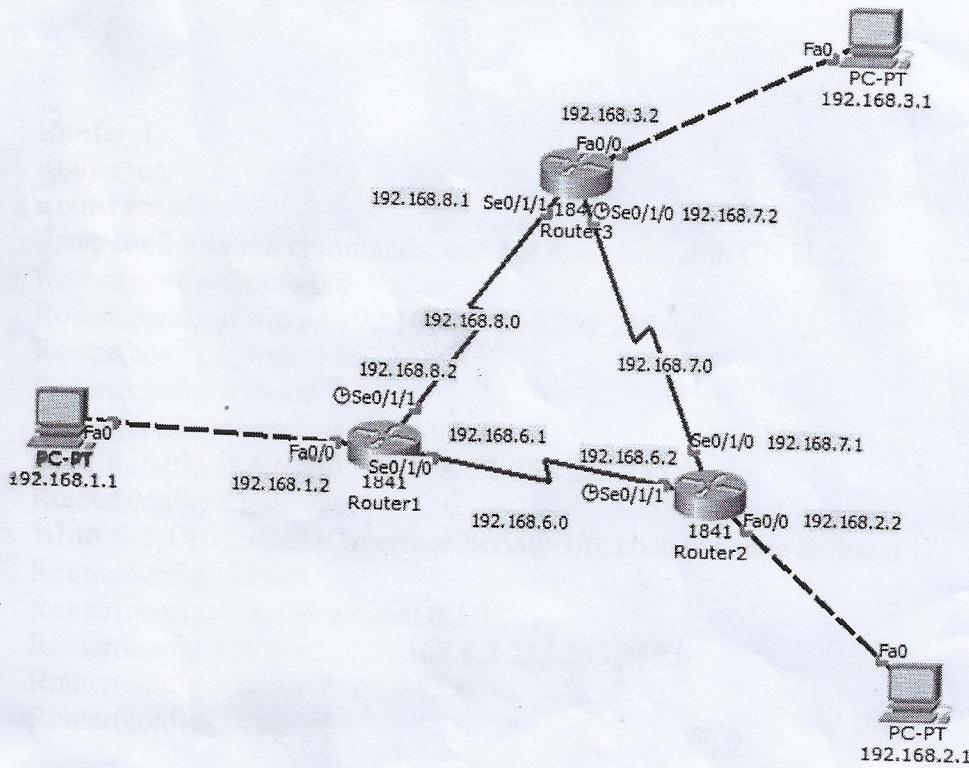


Construct the following network.



Provide IP and gateway to each of the PC like:

IP Configuration		IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static	<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	192.168.1.1	IP Address	192.168.2.1
Subnet Mask	255.255.255.0	Subnet Mask	255.255.255.0
Default Gateway	192.168.1.2	Default Gateway	192.168.2.2
DNS Server		DNS Server	

IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	192.168.3.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.3.2
DNS Server	

Let us now configure each of the routers like below:

### Router-1

Router>en

Router#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#int fa 0/0

Router(config-if)#ip ad 192.168.1.2 255.255.255.0

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#interface serial 0/1/0

Router(config-if)#ip add 192.168.6.1 255.255.255.0

Router(config-if)#no shut

%LINK-5-CHANGED: Interface Serial0/1/0, changed state to down

Router(config-if)#exit

Router(config)#interface serial 0/1/1

Router(config-if)#ip add 192.168.8.2 255.255.255.0

Router(config-if)#clock rate 64000

Router(config-if)#no shut

```
Router(config-if)#  
%LINK-5-CHANGED: Interface Serial0/1/1, changed state to up  
Router(config-if)#exit  
Router(config)#exit  
Router#  
%SYS-5-CONFIG_I: Configured from console by console  
Router#copy running-config startup-config  
Destination filename [startup-config]?  
Building configuration...  
[OK]
```

```
Router#  
%LINK-5-CHANGED: Interface Serial0/1/0, changed state to up  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1/0, changed state to up  
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#router ospf 1  
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0  
%wildcard mask for network advertising  
Router(config-router)#network 192.168.6.0 0.0.0.255 area 0  
Router(config-router)#network 192.168.8.0 0.0.0.255 area 0  
Router(config-router)#  
00:22:46: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.8.1 on Serial0/1/1 from LOADING to  
FULL, Loading Done
```

### Router-2

```
Router>en  
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#int fa 0/0  
Router(config-if)#ip add 192.168.2.2 255.255.255.0  
Router(config-if)#no shut  
  
Router(config-if)#  
Router(config-if)#exit  
Router(config)#interface serial 0/1/0  
Router(config-if)#ip add 192.168.7.1 255.255.255.0  
Router(config-if)#no shut  
  
Router(config-if)#exit  
Router(config)#interface serial 0/1/1  
Router(config-if)#ip add 192.168.6.2 255.255.255.0  
Router(config-if)#clock rate 64000  
Router(config-if)#no shut
```

```
Router(config-if)#  
%LINK-5-CHANGED: Interface Serial0/1/1, changed state to up  
Router(config-if)#exit  
Router(config)#exit  
Router#copy running-config startup-config  
Destination filename [startup-config]?  
Building configuration...  
[OK]
```

```
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#router ospf 1  
Router(config-router)#network 192.168.2.0 0.0.0.255 area 0  
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0  
Router(config-router)#[del]#network 192.168.0 0.0.0.255 area 0  
00:23:42 %OSPF-5-ADIGIG: Process 1, Nbr 192.168.8.1 on Serial0/1/0 from LOADING to  
FULL, Loading Done  
Router(config-router)#network 192.168.6.0 0.0.0.255 area 0  
Router(config-router)#[del]
```

### Router-3

```
Router>en  
Router#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#int fa 0/0  
Router(config-if)#ip add 192.168.3.2 255.255.255.0  
Router(config-if)#no shut  
Router(config-if)#exit  
Router(config)#interface serial 0/1/0  
Router(config-if)#ip add 192.168.7.2 255.255.255.0  
Router(config-if)#clock rate 64000  
Router(config-if)#no shut
```

```
%LINK-5-CHANGED: Interface Serial0/1/0, changed state to down  
Router(config-if)#exit  
Router(config)#interface serial 0/1/1  
Router(config-if)#ip add 192.168.8.1 255.255.255.0  
Router(config-if)#no shut
```

```
%LINK-5-CHANGED: Interface Serial0/1/1, changed state to down
```

```

Router(config-if)#exit
Router(config)#exit
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]

```

```

Router#
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 1
Router(config-router)#network 192.168.3.0 0.0.0.255 area 0
Router(config-router)#network 192.168.8.0 0.0.0.255 area 0
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0
Router(config-router)#
00:16:25: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.8.2 on Serial0/1/1 from LOADING to
FULL, Loading Done

```

Verify the network in simulation mode.

