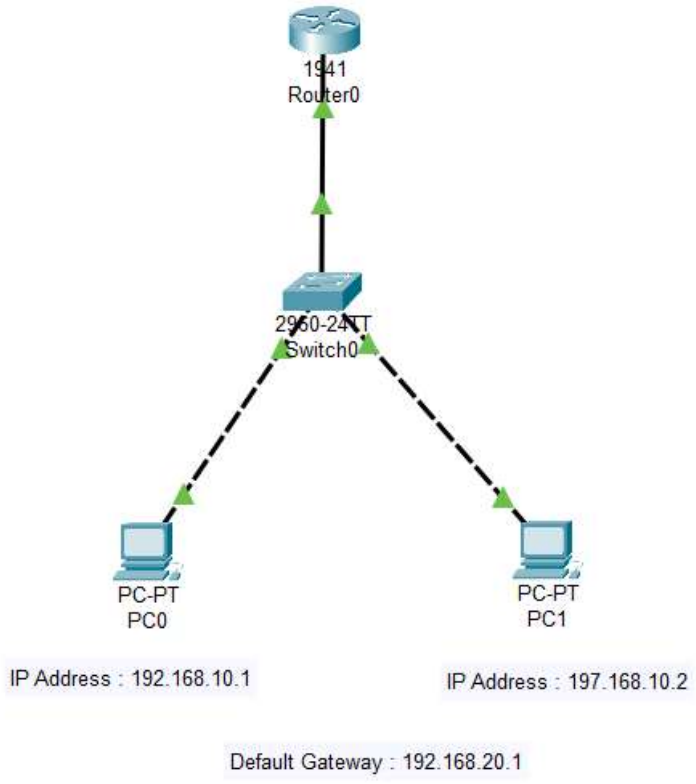
Question :

PC – Switch – Router Configurations

Configuration – 1 :



In this, 2 PCs, 1 Switch (2960-24TT) and 1 Router (1941) have been used. The IP Addresses and Default Gateway of the PCs have been set.

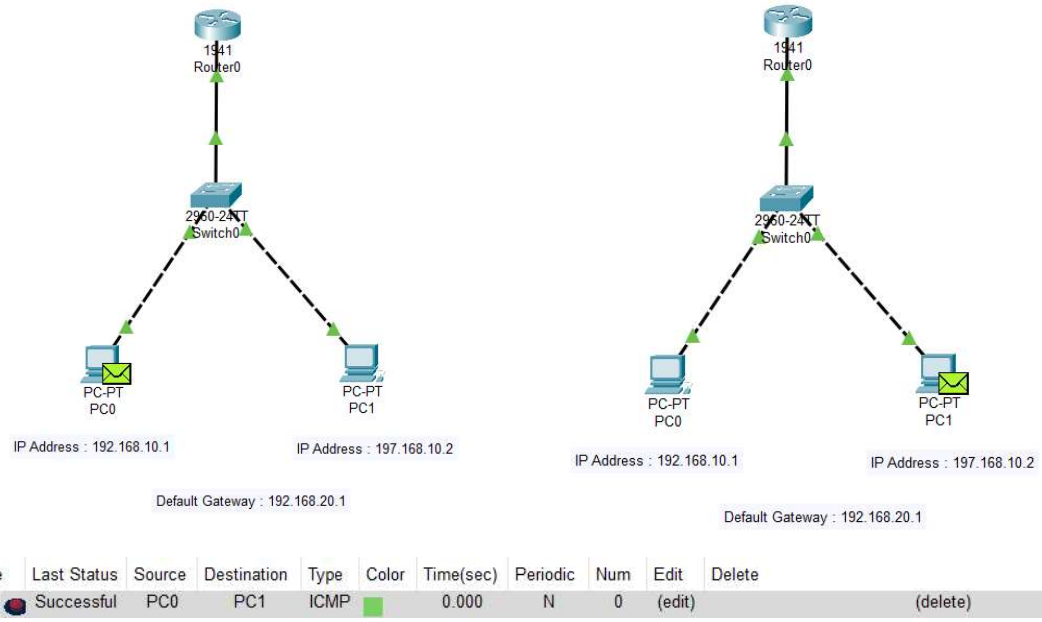
The default gateway of PCs is set such that it is the IP address of any of the routers in the network.

The PCs and Switch is connected using Copper Cross-over cable and the Switch and Router is connected using Copper Straight-through cable.

By default, the port for the switch is ON.

Coming to the router, physical module HWIC-2T is added with its switch in OFF mode. The switch is then turned ON. To make a successful connection with the switch, the Port Status of the interface GigabitEthernet 0/0 through which

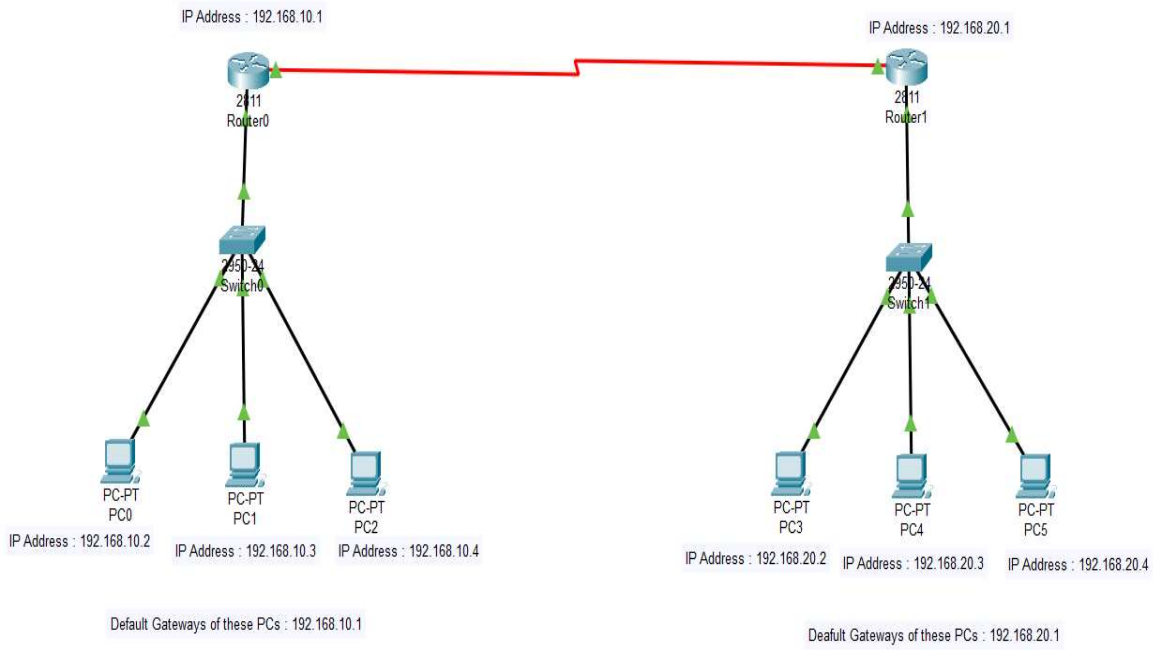
router is connected to the switch is turned ON. Green arrows across the network connection indicates successful connection.



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC1	ICMP		0.000	N	0	(edit)	(delete)

The simulation is also successful.

Configuration – 2 :



Two sets of 3 PCs have been connected to the two Switches (2950-24) using Copper Straight-through cable. The IP addresses of all the PCs have been set.

The default gateway of the first set of PCs is 192.168.10.1 which corresponds to the IP address of the first Router for Interface FastEthernet 0/0. The default gateway of the second set of PCs is 192.168.20.1 which corresponds to the IP address of the second Router for Interface FastEthernet 0/0.

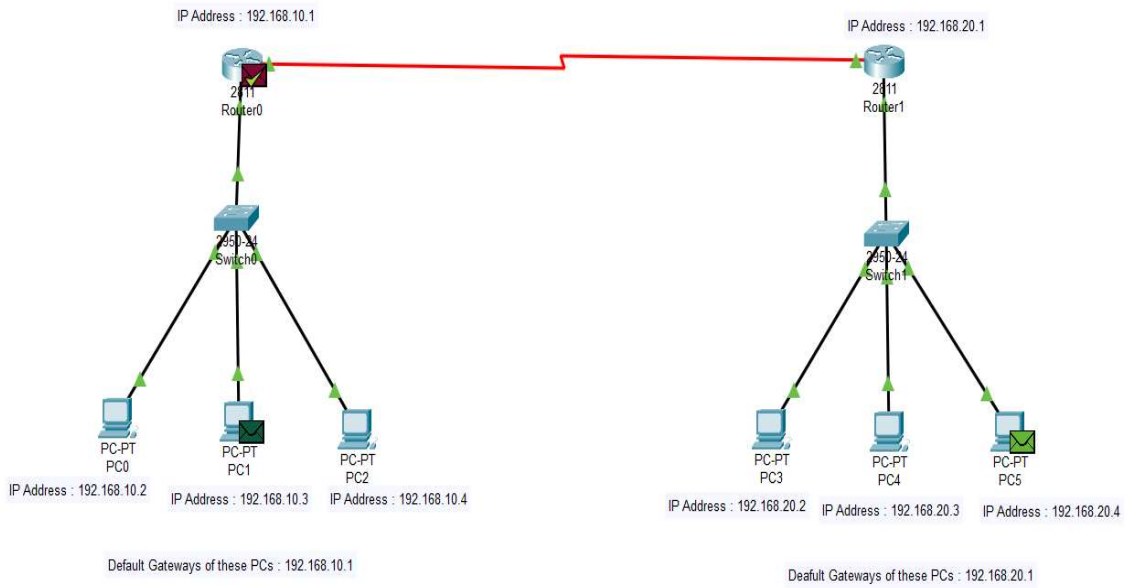
The Switches are connected to the Router (2811) using Copper Straight-through cable. The two Routers are interconnected using Serial DCE.

The Port Status for the interfaces of the Switches is by default ON.

Coming to the Routers, module IWC-1T is added in the physical device section, while the switch is turned OFF. It is turned ON once the module is added in each of the routers. Then, turn ON the Port Status of each of the interface used. Interfaces FastEthernet 0/0 of Router0 is used to connect to Switch0 and Serial 0/1/0 is used to connect it to the other router. Similarly, Interfaces FastEthernet 0/0 of Router1 is used to connect to Switch1 and Serial 0/0/0 is used to connect it to the other router. Port Status for all these four interfaces is turned ON.

The IP address of Router 1 for Interface Serial 0/1/0 is 192.168.30.2 and that of Router 2 for Interface Serial 0/0/0 is 192.168.30.3.

We now get green arrows across our network indicating successful connection.



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	Router0	Router1	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC0	PC1	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC3	PC5	ICMP		0.000	N	2	(edit)	(delete)

The simulation is also successful.

----------Thank you----------