

Assignment Seven: Group of Six Students

Deadlines

30th December 2022: 6:00PM through my proton email.

Note: Email attachment file must be in the form: **bit_xxxx_yyy_2021_assignment7.pdf** or **bcse_xxxx_yyy_2021_assignment7.pdf**

Please read the following figure and Tables and perform the Lab work on your Packet Tracer:

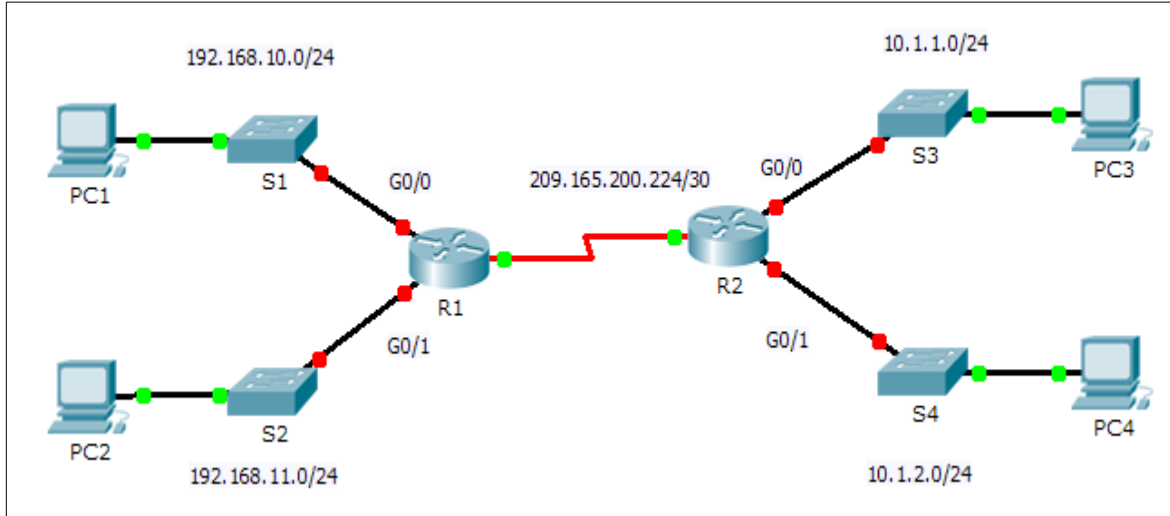


Table 1: Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1	G0/0	192.168.10.1	255.255.255.0	N/A
	G0/1	192.168.11.1	255.255.255.0	N/A
	S0/0/0	209.165.200.225	255.255.255.252	N/A
R2	G0/0	10.1.1.1	255.255.255.0	N/A
	G0/1	10.1.2.1	255.255.255.0	N/A
	S0/0/0	209.165.200.226	255.255.255.252	N/A
PC1	NIC	192.168.10.10	255.255.255.0	192.168.10.1
PC2	NIC	192.168.11.10	255.255.255.0	192.168.11.1
PC3	NIC	10.1.1.10	255.255.255.0	10.1.1.1
PC4	NIC	10.1.2.10	255.255.255.0	10.1.2.1

Lab assignment:

- Cable a network that is similar to diagram as shown on your packet tracer.
- Use various **show** commands to display the current state of the router.
- Use the **Table 1** to configure router Ethernet interfaces.
- Use commands to verify and test your configurations

Configure Router Interfaces:

- Configure the GigabitEthernet 0/0 interface on R1
 - R1(config)# interface gigabitethernet 0/0
 - R1(config-if)# ip address 192.168.10.1 255.255.255.0
 - R1(config-if)# no shutdown
 - R1(config-if)# description LAN connection to S1
 - R1(config-if)# end
 - R1# ping 192.168.10.10
 - (Type escape sequence to abort the ping activity)
- Configure the remaining Gigabit Ethernet Interfaces on R1 and R2
 - Enter the IP address and activate the interface
 - Configure an appropriate description
 - Verify interface configurations
- Back up the configurations to NVRAM
 - Save the configuration files on both routers to NVRAM
 - What command did you use?

Verify the configuration

- Use verification commands to check your interface configurations
 - Use the **show ip interface brief** command on both R1 and R2
 - How many interfaces on R1 and R2 are configured with IP addresses and in the “up” state?
 - What part of the interface configuration is NOT displayed in the command output?
 - Use the **show ip route** command on both **R1** and **R2** to view the current routing tables
 - How many connected routes do you see
 - From the command line on PC1, ping PC4
 - From the command line on R2, ping PC2
 - **Note:** The switches are not configured, you will not be able to ping them. Try to configure switches if possible to make the connection work!