**Lab Task 1**

**PC1 and PC3**

* ipconfig /all
* ipconfig /all
* ping 10.10.1.18
* ping 10.10.1.98
* tracert 10.10.1.18
* tracert 10.10.1.98

**R1**

* enable
* show ip interface brief
* show ip route

**R3**

* enable
* show ip interface brief
* show ip route

**R2**

* enable
* show ip interface brief
* conf t
* interface s0/0/0
* ip address 10.10.1.5 255.255.255.252
* no shutdown

**PC1 and PC3**

* ping 10.10.1.18
* ping 10.10.1.98

**PC2 and PC4**

* ipv6config /all
* ipv6config /all
* ping 2001:DB8:1:4::2
* ping 2001:DB8:1:1::2
* tracert 2001:DB8:1:4::2
* tracert 2001:DB8:1:1::2

**R3**

* enable
* show ipv6 interface brief

**PC2 and PC4**

* ping 2001:DB8:1:4::2
* ping 2001:DB8:1:1::2

**Lab Task 2**

**PC1**

* ipconfig /all
* ping 172.16.1.1
* ping 209.165.201.2
* ping 172.16.1.4
* ping 172.16.2.3
* ping 172.16.2.4

**PC2**

* ipconfig /all
* ping 172.16.1.1
* ping 209.165.201.2
* ping 172.16.1.3
* ping 172.16.2.3
* ping 172.16.2.4

**PC-A**

* ipconfig /all
* ping 209.165.201.2
* ping 172.16.2.1
* ping 172.16.2.4
* ping 172.16.1.3
* ping 172.16.1.4

**PC1**

* ssh -l Admin01 172.16.1.1
* show ip interface brief
* interface g0/1
* ip address 172.16.2.1 255.255.255.0
* no shutdown
* exit
* exit
* show ip interface brief

**PC-B**

* ipconfig /all
* ping 209.165.201.2
* ping 172.16.2.1
* ping 172.16.2.3
* ping 172.16.1.3
* ping 172.16.1.4
* ipconfig /all

**Lab Task 3**

**R2**

* enable
* conf t
* ip dhcp excluded-address 192.168.10.1 192.168.10.10
* ip dhcp excluded-address 192.168.30.1 192.168.30.10
* ip dhcp R1-LAN
* network 192.168.10.0 255.255.255.0
* default-router 192.168.10.1
* dns-server 192.168.20.254
* exit
* ip dhcp R3-LAN
* network 192.168.30.0 255.255.255.0
* default-router 192.168.30.1
* dns-server 192.168.20.254

**R1**

* enable
* conf t
* interface g0/0
* ip helper-address 10.1.1.2

**R3**

* enable
* conf t
* interface g0/0
* ip helper-address 10.2.2.2

**R2**

* exit
* interface g0/1
* ip address dhcp
* no shutdown
* exit
* exit
* show ip interface brief

**PC2**

ping 192.168.10.11

**PC1**

ping 209.165.202.158