**Name: MD. ASADUZZAMAN SHUVO ID:011221104**

**DHCP**

R2 –

ip dhcp pool R2G0/2

network 192.168.2.0 255.255.255.0

R2(dhcp-config)#default-router 192.168.2.1

R2(dhcp-config)#dns-server 192.168.5.7

exit

ip dhcp excluded-address 192.168.2.1 192.168.2.10

interface g0/2

R2(config-if)#ip address 192.168.2.1 255.255.255.0

R2(config-if)#no shutdown

R2(config)#interface g0/0

R2(config-if)#ip add

R2(config-if)#ip address 192.168.101.1 255.255.255.0

R2(config-if)#no sh

R2(config-if)#no shutdown

R2(config)#interface g0/1

R2(config-if)#ip address 192.168.100.1 255.255.255.0

R2(config-if)#no shutdown

Routing:

R2(config)#router rip

R2(config-router)#network 192.168.2.0

R2(config-router)#net 192.168.100.0

R2(config-router)#net 192.168.101.0

R2(config-router)#exit

R3 –

ip dhcp pool G0/2

network 192.168.3.0 255.255.255.0

default-router 192.168.3.1

dns-server 192.168.5.7

R3(config)#int g0/2

R3(config-if)#ip ad

R3(config-if)#ip address 192.168.3.1 255.255.255.0

R3(config-if)#no shutdown

R3(config)#interface g0/0

R3(config-if)#ip add

R3(config-if)#ip address 192.168.101.2 255.255.255.0

R3(config-if)#no shutdown

R3(config)#interface g0/1

R3(config-if)#ip address 192.168.102.1 255.255.255.0

R3(config-if)#no shutdown

Routing :

R3(config)#router rip

R3(config-router)#net 192.168.3.0

R3(config-router)#net 192.168.101.0

R3(config-router)#net 192.168.102.0

R3(config-router)#exit

R4 –

ip dhcp pool R4G0/2

network 192.168.4.0 255.255.255.0

default-router 192.168.4.1

dns-server 192.168.5.7

R4(config)#interface g0/2

R4(config-if)#ip address 192.168.4.1 255.255.255.0

R4(config-if)#no shutdown

R4(config)#int g0/0

R4(config-if)#ip address 192.168.102.2 255.255.255.0

R4(config-if)#no shutdown

R4(config)#int g0/1

R4(config-if)#ip address 192.168.103.1 255.255.255.0

R4(config-if)#no shutdown

Routing :

R4(config)#router rip

R4(config-router)#net 192.168.4.0

R4(config-router)#net 192.168.102.0

R4(config-router)#net 192.168.103.0

R4(config-router)#ex

R5 –

R5(config)#int g0/0

R5(config-if)#ip address 192.168.103.2 255.255.255.0

R5(config-if)#no shutdown

R5(config)#int g0/1

R5(config-if)#ip address 192.168.104.1 255.255.255.0

R5(config-if)#no shutdown

R5(config)#int g0/2

R5(config-if)#ip address 192.168.5.1 255.255.255.0

R5(config-if)#no shutdown

Routing:

R5(config)#router rip

R5(config-router)#net 192.168.5.0

R5(config-router)#net 192.168.103.0

R5(config-router)#net 192.168.104.0

R5(config-router)#ex

R4 –

R1(config)#int g0/0

R1(config-if)#ip address 192.168.104.2 255.255.255.0

R1(config-if)#no shutdown

R1(config)#int g0/1

R1(config-if)#ip address 192.168.100.2 255.255.255.0

R1(config-if)#no shutdown

R1(config)#int g0/2

R1(config-if)#ip address 11.10.100.0 255.255.255.252

R1(config-if)#no shutdown

R1 –

R1(config)#int g0/2

R1(config-if)#ip address 11.10.100.1 255.255.255.252

R1(config-if)#no shutdown

R1(config)#interface GigabitEthernet0/0

R1(config-if)#ip address 192.168.104.2 255.255.255.0

R1(config-if)#no shutdown

R1(config)#interface GigabitEthernet0/1

R1(config-if)#ip address 192.168.100.2 255.255.255.0

R1(config-if)#no shutdown

Routing:

R1(config)#ip route 0.0.0.0 0.0.0.0 11.10.100.2

R1(config)#router rip

R1(config-router)#network 192.168.100.0

R1(config-router)#network 192.168.104.0

R1(config-router)#default-information originate

**Static nat:**

R1(config)#ip nat inside source static 192.168.5.5 209.165.200.241

Nat pool: nat-pool

R1(config)#ip nat pool nat-pool 209.165.200.241 209.165.200.244 netmask 255.255.255.248

Nat pool => Accesslist:

R1(config)#access-list 1 permit 192.168.2.0 0.0.0.255

R1(config)#access-list 1 permit 192.168.3.0 0.0.0.255

R1(config)#access-list 1 permit 192.168.4.0 0.0.0.255

R1(config)#access-list 1 permit 192.168.5.0 0.0.0.255

R1(config)#iP nat inside source list 1 pool nat-pool

R1(config)#interface g0/0

R1(config-if)#ip nat inside

R1(config)#interface g0/1

R1(config-if)#ip nat inside

R1(config)#interface g0/2

R1(config-if)#ip nat outside

**DYNAMIC NAT ON R5:**

R5>

R5>en

R5#config t

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

R5(config)#int GigabitEthernet0/0

R5(config-if)#ip nat outside

R5(config-if)#exit

R5(config)#int GigabitEthernet0/2

R5(config-if)#ip nat inside

R5(config-if)#exit

R5(config)#int GigabitEthernet0/1

R5(config-if)#ip nat outside

R5(config-if)#exit

R5(config)#ip nat pool NAT-POOL 209.165.200.240 209.165.200.244 netmask 255.255.255.248

R5(config)#access-list 1 permit 192.168.4.0 0.0.0.255

R5(config)#access-list 1 permit 192.168.103.0 0.0.0.255

R5(config)#access-list 1 permit 192.168.104.0 0.0.0.255

R5(config)#ip nat inside source list 1 pool NAT-POOL

Pro Inside global Inside local Outside local Outside global

udp 209.165.200.241:520192.168.103.2:520 255.255.255.255:520255.255.255.255:520

udp 209.165.200.242:520192.168.104.1:520 255.255.255.255:520255.255.255.255:520

ISP –

ISP(config)#interface g0/0

ISP(config-if)#ip address 11.10.100.2 255.255.255.252

ISP(config-if)#no shutdown

ISP(config)#interface g0/1

ISP(config-if)#ip address 100.10.100.1 255.255.255.0

ISP(config-if)#no shutdown

Routing:

ISP(config)#ip route 209.165.200.240 255.255.255.248 11.10.100.1