**Part 1:**

R2>en

R2#conf t

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

R2(config)#ip dhcp exclude

R2(config)#ip dhcp excluded-address 192.168.10.1 192.168.10.10

R2(config)#ip dhcp exclude

R2(config)#ip dhcp excluded-address 192.168.30.1 192.168.30.10

R2(config)#ip dhcp pool R1-LAN

R2(dhcp-config)#network 192.168.10.0 255.255.255.0

R2(dhcp-config)#def

R2(dhcp-config)#default-router 192.168.10.1

R2(dhcp-config)#dns

R2(dhcp-config)#dns-server 192.168.20.254

R2(dhcp-config)#exit

R2(config)#ip dhcp pool R3-LAN

R2(dhcp-config)#net

R2(dhcp-config)#network 192.168.30.0 255.255.255.0

R2(dhcp-config)#def

R2(dhcp-config)#default-router 192.168.30.1

R2(dhcp-config)#dns

R2(dhcp-config)#dns-server 192.168.20.254

R2(dhcp-config)#exit

**Part 2:**

R1>en

R1#conf t

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

R1(config)#int g0/0

R1(config-if)#ip hel

R1(config-if)#ip help

R1(config-if)#ip helper-address 10.1.1.2

R1(config-if)#exit

R1(config)#

R3>en

R3#conf t

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

R3(config)#int g0/0

R3(config-if)#ip help

R3(config-if)#ip helper-address 10.2.2.2

R3(config-if)#exit

R3(config)#

**Part 3:**

R2>

R2>en

R2#conf t

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

R2(config)#int g0/1

R2(config-if)#ip add

R2(config-if)#ip address dhcp

R2(config-if)#no shut

R2(config-if)#

R2#show ip interface brief

Interface IP-Address OK? Method Status Protocol

GigabitEthernet0/0 192.168.20.1 YES manual up up

GigabitEthernet0/1 209.165.200.231 YES DHCP up up

Serial0/0/0 10.1.1.2 YES manual up up

Serial0/0/1 10.2.2.2 YES manual up up

Serial0/1/0 unassigned YES unset down down

Serial0/1/1 unassigned YES unset down down

Vlan1 unassigned YES unset administratively down down

R2#

**Part4:**

R2#show ip dhcp binding

IP address Client-ID/ Lease expiration Type

Hardware address

192.168.10.11 0002.4AA5.1470 -- Automatic

192.168.30.11 0004.9A97.2535 -- Automatic

R2#

Cisco Packet Tracer PC Command Line 1.0

C:\>ping 192.168.30.11

Pinging 192.168.30.11 with 32 bytes of data:

Request timed out.

Reply from 192.168.30.11: bytes=32 time=8ms TTL=125

Reply from 192.168.30.11: bytes=32 time=9ms TTL=125

Reply from 192.168.30.11: bytes=32 time=9ms TTL=125

Ping statistics for 192.168.30.11:

Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),

Approximate round trip times in milli-seconds:

Minimum = 8ms, Maximum = 9ms, Average = 8ms

C:\>ping 209.165.202.158

Pinging 209.165.202.158 with 32 bytes of data:

Request timed out.

Reply from 209.165.202.158: bytes=32 time=4ms TTL=125

Reply from 209.165.202.158: bytes=32 time=4ms TTL=125

Reply from 209.165.202.158: bytes=32 time=5ms TTL=125

Ping statistics for 209.165.202.158:

Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),

Approximate round trip times in milli-seconds:

Minimum = 4ms, Maximum = 5ms, Average = 4ms

Cisco Packet Tracer PC Command Line 1.0

C:\>ping 192.168.10.11

Pinging 192.168.10.11 with 32 bytes of data:

Reply from 192.168.10.11: bytes=32 time=12ms TTL=125

Reply from 192.168.10.11: bytes=32 time=9ms TTL=125

Reply from 192.168.10.11: bytes=32 time=9ms TTL=125

Reply from 192.168.10.11: bytes=32 time=8ms TTL=125

Ping statistics for 192.168.10.11:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 8ms, Maximum = 12ms, Average = 9ms

C:\>ping 209.165.202.158

Pinging 209.165.202.158 with 32 bytes of data:

Reply from 209.165.202.158: bytes=32 time=6ms TTL=125

Reply from 209.165.202.158: bytes=32 time=4ms TTL=125

Reply from 209.165.202.158: bytes=32 time=4ms TTL=125

Reply from 209.165.202.158: bytes=32 time=4ms TTL=125

Ping statistics for 209.165.202.158:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 4ms, Maximum = 6ms, Average = 4ms