**Configuring IPv4 Static And Default Routes**

**Task1**

For R1 configure directly connected network:

en => conf => s0/0 =>ip address (network address) (subnet)

For R1 recursive static route

en => conf t => ip route 172.31.0.0 255.255.255.0 172.31.1.193 => exit

en => conf t => ip route 172.31.1.196 255.255.255.252 172.31.1.193 => exit

en => conf t => ip route 172.31.1.128 255.255.255.192 172.31.1.193 => exit

For R2

en => conf t => ip route 172.31.1.0 255.255.255.128 s0/0/0

en => conf t => ip route 172.31.1.128 255.255.255.192 s0/0/1

Configure A default Route on R3

En => conf t => ip route 0.0.0.0 0.0.0.0 s0/0/1

**Configuring Floating Static Routes**

**Task2**

For edge Router

en => conf t => ip route 0.0.0.0 0.0.0.0 s0/0/0 => exit

For floating static route

en => conf t => ip route 0.0.0.0 0.0.0.0 s0/0/1 5

For disabling exit interface of the primary route

en => conf t => int s0/0/0 => shut

To turn it on

En => conf t =>int s0/0/0 => no shut

For IPv6

en=>conf t =>ipv6 unicast-routing => ipv6 route ::/1 2001:DB8:A:2::1

**Configuring RIPv2**

**Task3**

Configure RIPv2 on R1

en => conf t => ip route 0.0.0.0 0.0.0.0 s0/0/1 => router rip => version 2 => no auto-summary

=>network 192.168.1.0 => network 192.168.2.0 => passive-interface => default-information originate

=> end => copy run start

Configure RIPv2 on R2

en => conf t => router rip => version 2 => no auto-summary => network 192.168.2.0

=>network 192.168.4.0 => network 192.168.3.0 => passive-interface gig 0/0 => end => copy run start

Configure RIPv2 on R3

en => conf t => router rip => version 2 => no auto-summary => network 192.168.4.0 =>

network 192.168.5.0 =>passive-interface gig0/0 => end => copy run start