



# **American International University-Bangladesh (AIUB)**

Faculty of Science and Technology (FST)  
Department of Computer Science (CS)  
Undergraduate Program

**Course Code and Title: CSC 3116: Computer  
Networks**

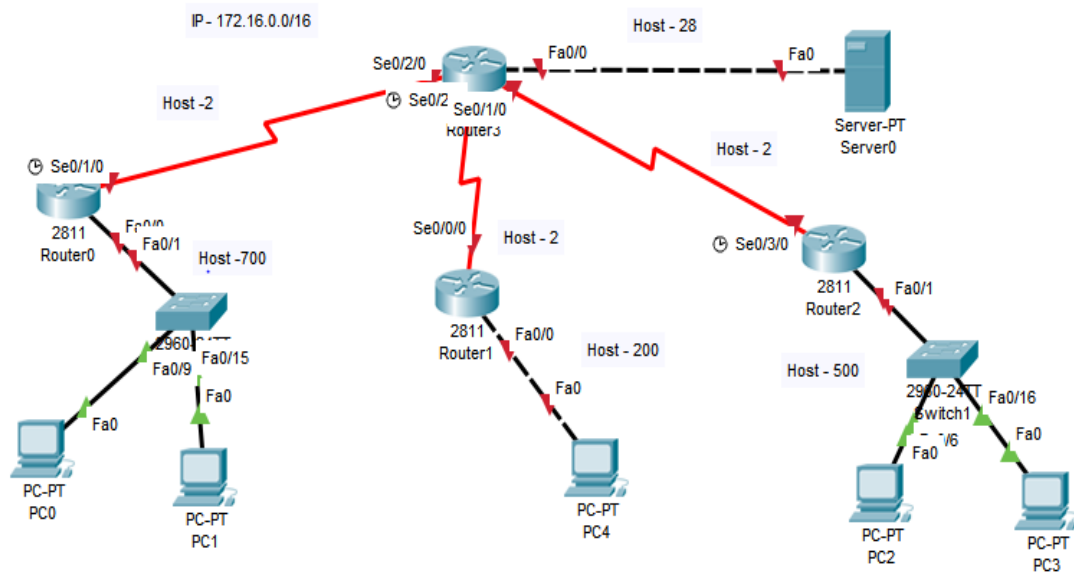
**Credit: 3**

## **Lab Manual**

**Title: Configuration of EIGRP routing protocol with VLSM**

**Software: cisco packet tracer**

## Network Design



### Question:

IP address: 172.16.0.0/16

Default gateway – last valid IP of the range

Routing algorithm: EIGRP, autonomous no -170

Router 0: Host 700

Router 1: Host 100

Router 2: Host 500

Router 3: Host – 28

Serial:

router 0 to router 3 -1st subnet

router 1 to router 3 -2nd subnet

router 2 to router 3 -3rd subnet

## **Solution:**

### **Configuration:**

#### **Router 0**

Router>en

Router#conf t

Router(config)#int f0/0

Router(config-if)#ip address 172.16.3.254 255.255.252.0

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#int s0/1/0

Router(config-if)#ip address 172.16.7.33 255.255.255.252

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#router eigrp 170

Router(config-router)#network 172.16.0.0 0.0.3.255

Router(config-router)#network 172.16.7.32 0.0.0.3

Router(config-router)#exit

## **Router 1**

Router>en

Router#conf t

Router(config)#int f0/0

Router(config-if)#ip address 172.16.6.254 255.255.255.0

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#int s0/0/0

Router(config-if)#ip address 172.16.7.37 255.255.255.252

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#router eigrp 170

Router(config-router)#network 172.16.6.0 0.0.0.255

Router(config-router)#network 172.16.7.36 0.0.0.3

## **Router 2**

Router>en

Router#conf t

Router(config)#int f0/0

Router(config-if)#ip address 172.16.5.254 255.255.254.0

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#int s0/3/0

Router(config-if)#ip address 172.16.7.41 255.255.255.252

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#router eigrp 170

Router(config-router)#network 172.16.4.0 0.0.1.255

Router(config-router)#network 172.16.7.40 0.0.0.3

### **Router 3**

Router>en

Router#conf t

Router(config)#int f0/0

Router(config-if)#ip address 172.16.7.30 255.255.255.224

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#int s0/2/0

Router(config-if)#ip address 172.16.7.34 255.255.255.252

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#int s0/2/1

Router(config-if)#ip address 172.16.7.38 255.255.255.252

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#int s0/1/0

Router(config-if)#ip address 172.16.7.42 255.255.255.252

Router(config-if)#no shut

Router(config-if)#exit

Router(config)#router eigrp 170

Router(config-router)#network 172.16.7.0 0.0.0.31

Router(config-router)#network 172.16.7.32 0.0.0.3

Router(config-router)#network 172.16.7.36 0.0.0.3

Router(config-router)#network 172.16.7.40 0.0.0.3