**Routing Information Protocol (RIP)**

**Home Assignment**

|  |
| --- |
| C:\Users\ASUS\Desktop\Rip version 2 assignment.jpg |

**Instructions:**

1. Configure the following topology using RIPv2 Routing protocol.

2. Set the first usable address of every subnet as the default gateway.

3. Set the 7th usable address of every subnet as the ip address of each PC’s.

4. You can use any ip address (within the range of the /30 subnet) for the two ports of router-router (WAN) connection.

**Change the numbers of subnets as instructed below:**

**For 199.199.10.0/23 (500 hosts)-Router 0:** Change the first byte of 500 host IP block: **199**.199.0.0/23 with the last two digits of your ID (Example: If your id is 10.02.04.007, then use 7 (ignore the zero), If your id is 10.02.04.017, then use 17).

**For 172.16.0.32/27 (30 hosts)-Router 2:** Change the second byte of 30 host IP block: 172.**16**.0.32/27with the last two digits of your ID (Example: If your id is 10.02.04.007, then use 7 (ignore the zero), If your id is 011752067, then use 67).

**\*\* Keep the remaining network subnets as presented in the figure above \*\***

**Task 1: Addressing Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Device** | **Interface** | **IP address** | **Subnet Mask** |
| **Router0** | **Fa 0/0** |  |  |
| **Serial 0/0/1** |  |  |
| **Serial 0/0/0** |  |  |
| **Router1** | **Fa 0/0** |  |  |
| **Serial 0/0/1** |  |  |
| **Serial 0/0/0** |  |  |
| **Router2** | **Fa 0/0** |  |  |
| **Fa 0/1** |  |  |
| **Router3** | **Fa 0/0** |  |  |
| **Serial 0/1/0** |  |  |
| **Serial 0/1/1** |  |  |

**Task 2: Subnet Information**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subnet Number** | **Subnet Address** | **First Usable Host Address** | **Last Usable Host Address** | **Gateway Address** |
| **1** |  |  |  |  |
| **2** |  |  |  |  |
| **3** |  |  |  |  |
| **4** |  |  |  |  |
| **5** |  |  |  |  |
| **6** |  |  |  |  |
| **7** |  |  |  |  |
| **8** |  |  |  |  |

**Task 3-1: RIPv2 Routing Table for Router0**

|  |  |
| --- | --- |
|  | **Network Address** |
| **Network** |  |
| **Network** |  |
| **Network** |  |
| **Network** |  |

**Task 3-2: RIPv2 Routing Table for Router1**

|  |  |
| --- | --- |
|  | **Network Address** |
| **Network** |  |
| **Network** |  |
| **Network** |  |

**Task 3-3: RIPv2 Routing Table for Router2**

|  |  |
| --- | --- |
|  | **Network Address** |
| **Network** |  |
| **Network** |  |

**Task 3-4: RIPv2 Routing Table for Router3**

|  |  |
| --- | --- |
|  | **Network Address** |
| **Network** |  |
| **Network** |  |
| **Network** |  |

*\*\*\* Best of Luck \*\*\**