**Tutorial Class: Friday 3.30 PM to 6.00 PM**

|  |  |
| --- | --- |
| **Group C** | |
| **Name** | **ID** |
| Satyajit Malakar | 24711501 |

***Table A-*** *IPv4 Subnetting Table*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Subnet Number** | **Subnet Address** | **Subnet Mask** | **Hosts Required** | **Maximum Hosts in Subnet** | **In Use**  **(Yes or No)** | **Network Name** |
| **SWITCHING NETWORK** | | | | | | |
| **1** | 10.0.32.0/23 | 255.255.254.0 | 503 | 510 | Yes | Student |
| **2** | 10.0.34.0/24 | 255.255.255.0 | 203 | 254 | Yes | Visitors |
| **3** | 10.0.35.0/25 | 255.255.255.128 | 83 | 126 | Yes | Staff |
| **4** | 10.0.35.128/28 | 255.255.255.240 | 9 | 14 | Yes | Management VLAN |
|  | 10.0.35.160/28 | 255.255.255.240 |  | 14 | No |  |
|  | 10.0.35.176/28 | 255.255.255.240 |  | 14 | No |  |
|  | 10.0.35.192/28 | 255.255.255.240 |  | 14 | No |  |
|  | 10.0.35.208/28 | 255.255.255.240 |  | 14 | No |  |
|  | 10.0.35.224/28 | 255.255.255.240 |  | 14 | No |  |
|  | 10.0.35.240/28 | 255.255.255.240 |  | 14 | No |  |
|  |  |  |  |  |  |  |
| **CONNECTION BETWEEN ROUTERS** | | | | | | |
| **5** | 10.0.35.144/30 | 255.255.255.252 | 2 | 2 | Yes | North - East |
| **6** | 10.0.35.148/30 | 255.255.255.252 | 2 | 2 | Yes | South - East |
|  |  |  |  |  |  |  |
| **Server** | | | | | | |
| **7** | 10.0.35.152/30 | 255.255.255.252 | 2 | 2 | Yes | PC-4 (Server) |
|  | 10.0.35.156/30 | 255.255.255.252 | 2 | 2 | No |  |
|  |  |  |  |  |  |  |
| **ISP** | | | | | | |
| **8** | 209.165.200.216/30 | 255.255.255.252 | 2 | 2 | Yes | West - ISP |
| **9** | 209.165.200.220/30 | 255.255.255.252 | 2 | 2 | Yes | East - ISP |
|  |  |  |  |  |  |  |

***Table B-****Device Interface IP Addressing Table*

|  |  |  |  |
| --- | --- | --- | --- |
| **Device** | **Interface** | **IPv4 address** | **Subnet Mask** |
| **ISP** | Fa0/0 | 209.165.200.217 | 255.255.255.252 |
| Se0/0/0 | 209.165.200.221 | 255.255.255.252 |
| **Jones** | Management (& Native) VLAN | 10.0.35.132 | 255.255.255.240 |
| **Thomas** | Management (& Native) VLAN | 10.0.35.133 | 255.255.255.240 |
| **Harry** | Management (& Native) VLAN | 10.0.35.134 | 255.255.255.240 |
| **East** | Se0/0/0 | 209.165.200.222 | 255.255.255.252 |
| Fa0/0 | 10.0.35.146 | 255.255.255.252 |
| Se0/0/1 | 10.0.35.150 | 255.255.255.252 |
| Fa0/1 | 10.0.35.153 | 255.255.255.252 |
| **South** | Se0/0/1 | 10.0.35.149 | 255.255.255.252 |
| Fa0/0.10 | 10.0.32.2 | 255.255.254.0 |
| Fa0/0.20 | 10.0.34.2 | 255.255.255.0 |
| Fa0/0.30 | 10.0.35.2 | 255.255.255.128 |
| Fa0/0.99 | 10.0.35.130 | 255.255.255.240 |
| **North** | Fa0/1 | 10.0.35.145 | 255.255.255.252 |
| Fa0/0.10 | 10.0.32.3 | 255.255.254.0 |
| Fa0/0.20 | 10.0.34.3 | 255.255.255.0 |
| Fa0/0.30 | 10.0.35.3 | 255.255.255.128 |
| Fa0/0.99 | 10.0.35.131 | 255.255.255.240 |
| **West** | Fa0/1 | 209.165.200.218 | 255.255.255.252 |
| Fa0/0.10 | 10.0.32.1 | 255.255.254.0 |
| Fa0/0.20 | 10.0.34.1 | 255.255.255.0 |
| Fa0/0.30 | 10.0.35.1 | 255.255.255.128 |
| Fa0/0.99 | 10.0.35.129 | 255.255.255.240 |
|  |  |  |  |
|  |  |  |  |

***Table C-****Host Addressing Table*

|  |  |  |  |
| --- | --- | --- | --- |
| **Host** | **IPv4 Address** | **Subnet Mask** | **Gateway** |
| **PC1 (Network Admin)** | 10.0.35.135 | 255.255.255.240 | 10.0.35.129 |
| **PC2 (Staff Host)** | 10.0.35.2 | 255.255.255.128 | 10.0.35.1 |
| **PC3 (Student Host)** | 10.0.32.2 | 255.255.254.0 | 10.0.32.1 |
| **PC4 (Server)** | 10.0.35.154 | 255.255.255.252 | 10.0.35.153 |