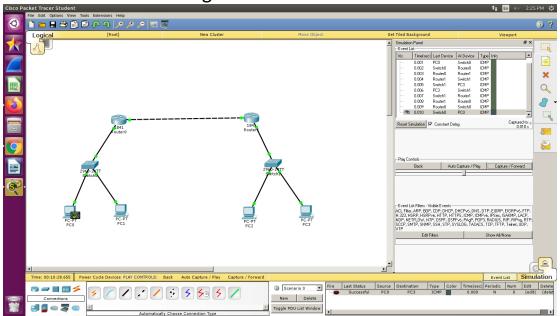
# CN Lab Report – Week 6

| NAME         | SRN           | SECTION |
|--------------|---------------|---------|
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#### TASK 1

#### <u>Configuring Topology</u>

- a) The network devices are organised in the required topology.
- **b)**IP Addresses have been assigned to each interface being used on the routers and end systems. The routing tables are then configured manually by adding the required routing information
- **c)**A PDU packet is then transferred from one end system on a network to another on a different network.
- **d)**If the packet transfer is successful, a successful status is shown in the bottom right corner.



### **Configuring Network and Routing Tables:**

#### **End Systems**

| End System | IP Address | Subnet    | Gateway  |
|------------|------------|-----------|----------|
|            |            | Mask      |          |
| PC0        | 10.0.0.1   | 255.0.0.0 | 10.0.0.3 |
| PC1        | 10.0.0.2   | 255.0.0.0 | 10.0.0.3 |
| PC2        | 30.0.0.2   | 255.0.0.0 | 30.0.0.1 |
| PC3        | 30.0.0.3   | 255.0.0.0 | 30.0.0.1 |

### **ROUTERS**

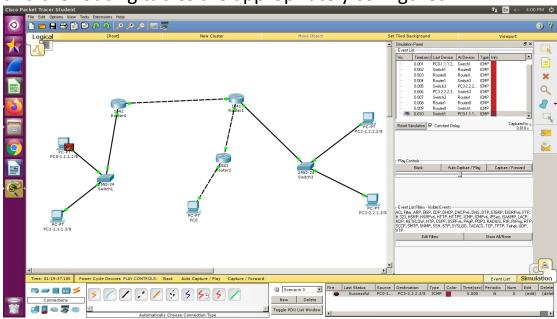
| Router  | Interface Name  | IP Address | Subnet Mask |
|---------|-----------------|------------|-------------|
| Router0 | FastEthernet0/0 | 10.0.0.3   | 255.0.0.0   |
| Router0 | FastEthernet0/1 | 20.0.0.1   | 255.0.0.0   |
| Router1 | FastEthernet0/0 | 20.0.0.2   | 255.0.0.0   |
| Router1 | FastEthernet0/1 | 30.0.0.1   | 255.0.0.0   |

# **Routing Table**

| Router  | <b>Destination Network</b> | Next Hop |
|---------|----------------------------|----------|
| Router0 | 30.0.0.0                   | 20.0.0.2 |
| Router1 | 10.0.0.0                   | 20.0.0.1 |

### **TASK 2**

The above performed task is repeated with another topology and the routing tables are appropriately configured.



## **Configuring Network and Routing Tables:**

### **End Systems**

| End System    | IP Address | Subnet Mask | Gateway |
|---------------|------------|-------------|---------|
| PC0-1.1.1.2/8 | 1.1.1.2    | 255.0.0.0   | 1.1.1.1 |
| PC1-1.1.1.3/8 | 1.1.1.3    | 255.0.0.0   | 1.1.1.1 |
| PC0           | 6.6.6.2    | 255.0.0.0   | 6.6.6.1 |
| PC2-2.2.2/8   | 2.2.2.2    | 255.0.0.0   | 2.2.2.1 |
| PC3-2.2.3/8   | 2.2.2.3    | 255.0.0.0   | 2.2.2.1 |

#### **ROUTERS**

| Router  | Interface Name  | IP Address | Subnet Mask   |
|---------|-----------------|------------|---------------|
| Router0 | FastEthernet0/0 | 1.1.1.1    | 255.0.0.0     |
| Router0 | FastEthernet0/1 | 3.3.3.1    | 255.0.0.0     |
| Router1 | FastEthernet0/0 | 3.3.3.2    | 255.0.0.0     |
| Router1 | FastEthernet0/1 | 5.5.5.2    | 255.0.0.0     |
| Router1 | Ethernet0/1/0   | 2.2.2.1    | 255.0.0.0     |
| Router2 | FastEthernet0/0 | 5.5.5.1    | 255.255.255.0 |
| Router2 | FastEthernet0/1 | 6.6.6.1    | 255.255.255.0 |

# **Routing Table**

| Router  | Destination Network | Next Hop |
|---------|---------------------|----------|
| Router0 | 2.2.2.0             | 3.3.3.2  |
| Router0 | 5.5.5.0             | 3.3.3.2  |
| Router0 | 6.6.6.0             | 3.3.3.2  |
| Router1 | 1.1.1.0             | 3.3.3.1  |
| Router1 | 6.6.6.0             | 5.5.5.1  |
| Router2 | 3.3.3.0             | 5.5.5.2  |
| Router2 | 1.1.1.0             | 5.5.5.2  |
| Router2 | 2.2.2.0             | 5.5.5.2  |