**Lab 1 [Basics of Packet Tracer]**

**Outline:**

1. Use of Telnet for switch configuration
2. Introducing a router for communication outside the network
3. Basic router configurations
4. Viewing routing table
5. Default Gateway implementation

**Tasks:**

1. Create two networks each with one switch and five PCs.
2. Name switch 1 as “SystemsLabSwitch” and switch 2 as “ProgrammingLabSwitch”.
3. Take a router and connect the switches with its ethernet ports using suitable cables.

Note: Perform the following configurations using **TELNET**, after assigning Ips and enabling telnet using following method.

*Switch(config)# line vty 0 4* **max 15**

*Switch(config-line)# password your\_password*

*Switch(config-line)# login*

Then from PCs command prompt: type telnet IP address like telnet 220.168.10.1 and enter the password you set earlier.

1. Configure the router: hostname “RCET”, setup password for configuration mode, assign IP addresses to the used ports for both switches. Save the configurations as: *Router# copy running-config startup-config.* Current interfaces status can be viewed using: *Router# show ip interface brief* and running configurations using: *Router# show running-config*
2. Setup the networks with following configurations.

|  |  |  |  |
| --- | --- | --- | --- |
| **Networks** | **Gateway** | **Network Id** | **Host Ids** |
| ProgrammingLabSwitch | 220.168.10.0 (255.255.255.0) | 220.168.10.1 (255.255.255.0) | 220.168.10.2 and onward |
| SystemsLabSwitch | 220.168.20.0 (255.255.255.0) | 220.168.20.1 (255.255.255.0) | 220.168.10.2 and onward |

1. Use *show ip route* command to view routing table in router.
2. Use ping command to test the connections by pinging different nodes over the LAN as well as WAN.