

Academic Year **2024/2025**
Semester **Spring**
Academic Level: **Level 1**
Sheet No.: **1**

Subject: (ECT 141) Networks and Communication Technologies

Scenario: You are a network technician tasked with setting up a small office network using Cisco Packet Tracer. The office has two computers that need to communicate with each other directly through a switch.

Task: Complete the following steps and answer the questions below.

1. **Build the Network:** In Cisco Packet Tracer, add two PCs (PC0 and PC1). Connect PC0 to PC1 using Ethernet cables.
2. **Configure IP Addresses:** Assign static IP addresses to the PCs as follows:
PC0: IP Address: 192.168.1.10
PC1: IP Address: 192.168.1.11
Configure these IP addresses in Cisco Packet Tracer.
3. **Verify Configuration:** On PC0, open the Command Prompt and use the `ipconfig` command to check its IP address and subnet mask.
4. **Test Connectivity:** From PC0's Command Prompt, use the `ping 192.168.1.11` command to test connectivity to PC1.
5. **Simulate Packet Transfer:** Switch to Simulation mode in Cisco Packet Tracer. Send a simple PDU (Protocol Data Unit) from PC0 to PC1. Observe the ICMP packets traveling through the network.
6. **Troubleshooting:** Change PC1's IP address to 192.168.2.11. From PC0, attempt to ping PC1 again using `ping 192.168.2.11`, replay (yes/no), why?