

Objective:

To understand and identify various networking devices, their functions, and how they interact within a network.

Lab Questions:

1. Identification of Devices:

- List and describe the functions of at least five networking devices used in a typical network setup.
- Differentiate between a **switch** and a **hub**.

2. Practical Understanding:

- How does a **router** differ from a **modem** in terms of network communication?
- What is the role of a **network interface card (NIC)** in a computer system?

3. Hands-on Connection:

- Explain the steps to **connect a computer to a network** using an Ethernet cable and a switch.
- How do you configure an **IP address** on a computer manually?

4. Types of Networking Devices:

- What is the difference between a **managed** and an **unmanaged switch**?
- Describe the function of an **access point** in a wireless network.

5. Real-world Application:

- In an office network, which devices would you use to connect **multiple computers to the internet** securely? Explain why.
- Why is a **firewall** important in network security, and how does it work?