

## **Information Security Practical Lab Assignment**

### **Assignment Title:**

Introduction to Information Security Tools and Basic Attacks

### **1. Introduction to Information Security**

Information Security is the practice of protecting information from unauthorized access, misuse, modification, or destruction. It ensures that data remains safe whether it is stored on a computer, sent over the internet, or shared between systems.

### **2. CIA Triad**

**Confidentiality:** Information should only be accessible to authorized users.

**Integrity:** Data should remain accurate and unaltered.

**Availability:** Systems should be accessible when required.

### **3. Tool Used: Nmap**

Nmap is an open-source network scanning tool used to identify active devices and open ports.

### **4. Installation**

Nmap was downloaded from the official website and installed on Windows.

### **5. Practical Task**

Command Used:

nmap 192.168.1.1

### **6. Working of Nmap**

Nmap sends packets to a target system and analyzes responses to detect open ports and services.

### **7. Importance**

Nmap helps identify network vulnerabilities and improves system security.

### **8. Conclusion**

This assignment improved understanding of basic information security concepts and practical network scanning.