

## Cyber Security-Sem 4

### UNIT 1: Basics of Cyber Security

- \*What is Cyber Security? Explain its objectives.
- \*Define and explain the CIA Triad: Confidentiality, Integrity, Availability.
- \*What are the major challenges in cyber security today?
- \*Explain types of cyber attacks with real-world examples.
- \*Differentiate between Threat, Vulnerability, and Risk.

### UNIT 2: Cyber Crimes and Legal Framework

- \*Define Cyber Crime. What are the different types of cyber crimes?
- \*Write a short note on the IT Act 2000.
- \*Explain the cyber laws in India and their importance.
- \*What is identity theft? How can it be prevented?
- \*What is cyberbullying and how is it handled legally?

### UNIT 3: Security Techniques and Tools

- \*Explain Firewall – its types and functions.
- \*What is Antivirus Software? How does it work?
- \*Define Cryptography. Difference between Symmetric and Asymmetric encryption.
- \*What is Two-Factor Authentication (2FA)? Why is it important?
- \*Explain the working of a Virtual Private Network (VPN).
- \*What is Network Security? Mention common network attacks.
- \*Define Intrusion Detection System (IDS) and Intrusion Prevention System (IPS).
- \*Explain Phishing and how to protect against it.
- \*Describe how passwords should be managed securely.