**Topics under Ethical Hacking & Cyber Security**

**Cyber Security & Ethical Hacking**

Need of cyber security

Ethical hacking

Types of hackers

Penetration Testing

Footprinting

Footprinting techniques

**Cryptography**

Types of Cryptography

Symmetric / Asymmetric

Digital Signatures

Hash functions

**Computer Networks & Security**

Computer Network Architecture; Layered Architecture

OSI Model

TCP / IP Model

Common Network Threats

**Application & Web Security**

Web server architecture & attacks

Web client architecture & attacks

Counter measures & patch management

**Identity & Access Management (IdAM)**

Authentication

Authorization

IdAM

Password protection

Identity threats

**Vulnerability Analysis (VA) & System Hacking**

VA Types

VA Lifecycle

VA Tools

Vulnerability scoring system

VA Report

System Hacking

Password cracking

Privilege escalation, hiding files, clearing logs

**Sniffing & SQL Injection**

Malware & its types

Sniffing attacks & its types

SQL injection & its types

**Denial of Service (DoS) & Session Hijacking**

DoS attacks & symptoms

DoS detection

System Hijacking

Session / Application level hijacking

Intrusion Detection Systems (IDS) & types

Firewalls & Types

Honeypots

Evading IDS