

## **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