LITC
COMPUTER EDUCATION

Duration: 70 Days

Cyber Security

The successful candidate has the foundational knowledge and skills necessary to demonstrate cyber security skills. This test will be an entry point into the Cisco Certified program. The next certification in this pathway is the **Cisco Certified CyberOps Associate**.

Candidates for this exam are starting their journey in the cyber security field. This exam assesses their understanding of key security paradigms, terminology, and mindset. Successful candidates will have a keen awareness of the importance of security and the threats to a business when security procedures are not followed. They are willing to teach others about security concerns.

They are developing the investigative and implementation skills necessary to succeed in the field and have an aptitude and desire to learn more. They are familiar with the toolset at a fundamental level and can assist in threat mitigation and incident response. The successful candidates are qualified work-ready cyber security technicians with at least 150 hours of instruction and hands-on experience.

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Objectives: Cyber security

1. Networking Concepts

IP Classifications
OSI Layers
MAC/Switch/Router/HUB
NAT/PAT
Ports/Protocols
Subnetting
TCP/UDP
Network Topology
Network architecture
Encoding
Encryption
Hashing
Multi Casting/Uni casting/Broad Casting
TCP 3 way hand shake

Objectives: Cyber security

2. Cyber Security Concepts

- CIA (Confidentiality, Integrity, Availability)
- IAAA (Identification, Authentication, Authorisation, Accountability)
- Firewall
- IDS/IPS (intrusion detection systems & Intrusion prevention systems)
- Proxy
- EMAIL Gateway
- Antivirus
- DLP (DATA Loss Prevention)
- End Point protection
- WAF (Web Application Firewall)
- DHCP (Dynamic Host Configuration Protocol)
- DNS (Domain Name System)
- DMZ (Demilitarized zone)
- What is security and types of security
- Technologies and tools
- Incident Investigation
- Log Source Integration
- Risk/Threat/Vulnerability
- SIEM Tools: QRadar, Splunk

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3. Fundamental of Cloud Security

- Cloud computer fundamentals
- Import cloud characteristics
- On demand self service
- Broad network access
- Resource pooling
- Rapid elasticity
- measures services
- iaas
- paas
- saas
- Public cloud
- Private cloud
- Hybrid cloud
- Hands on Cloud Practical on Azure or AWS Cloud Portal

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Objectives: Cyber security

3. Ethical Hacking (Kali Linux)

- Kali installation
- Basic to advanced level commands of kali
- Wep cracking
- Wpa cracking
- Wpa2 cracking
- Mitm attack
- Nmap scanning
- Port exploitation-(FTP, SMTP, Telnet, SSH, Http, Postgresql, netbios)-metasploitable framework
- Database interaction using metasploitable machine

Python:-

- Introduction to Python
- Basic concept in Python
- How to using String
- Introduction to Variables and Methods
- Introduction to Functions
- Ethical hacking using python – Fundamental

Objectives: Cyber security

5. VAPT Syllabus:-

- VAPT introduction
- INSTALLATION ALL TOOLS :BURP SUIT /ACUNETIX / NESSUS / ZENMAP/MALTEGO (2days)
- Information gathering (Getting IP address, reverse IP lookup, finding subdomains)
- HTML Basic introduction
- Zenmap (port scanning)
- Burp Suite [installing useful add-ins, scanning websites, identifying false/true positive]
- Brute force and Authentication bypass
- Session management and sensitive data exposure (insufficient cryptography with introduction)
- SQL Injection (Different SQL injections) [website and user account] [automated and manual]
- Sql injection (automated sqlmap)
- Broken access control & using components of known vulnerabilities
- XSS (Reflected, Stored, DOM)
- Host Header Injection & Clickjacking
- Rate limit Functionality & IDOR (parameter tampering/response manipulation)

Objectives: Cyber security

5. VAPT Syllabus:-

- CSRF
- SSRF
- Important HTTP headers, cache controls and cookies
- Spf attack
- OAuth misconfiguration
- Basics of cryptography & steganography
- Directory traversal
- Burp Suite & ssl certificates scanning
- OWASP top 10
- LFI/RFI/
- File Upload vulnerability (bypassing using different techniques)
- Session management
- CORS/SOP
- Input Validation/ input Sanitization
- XML (XXE)
- Nessus essesntial

Objectives: Cyber security

7. Compliance in – Cyber Security –PCI DSS, GDPR, and HIPPA:-

- Overview of Requirements of PCI DSS
- Who should comply to PCI DSS
- History of PCI DSS
- Why protecting payments is important
- Components of a Payment Card Transaction
- Requirement -Encrypt transmission of cardholder data
- Benefits of Implementing PCI DSS

8. Tools:-

- Nessus
- kali Linux
- Wireshark
- Burpsuit
- N-Map
- Splunk
- IBM Qradar

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All about Course

- No classes on weekends
- Theoretical Knowledge
- Practical Knowledge
- Regular Recorded Class Video
- Softcopy Material (PDF)
- One-to-One Discussion
- Any "Edu" Qualification
- Real-time Live Project
- Day-to-Day tasks
- Troubleshooting
- Dealing with client calls
- Real-time scenarios
- Interview cracking tips
- Interview Questions
- Mock Interview
- IT Working Environment
- Job Assistance

Reg. Office: Ground Floor p13, Metro Tower, near Mangal city, Vijay Nagar, Indore (M.P.)
8878855568, 9522220892, E-mail: info@litcinfore.com, litcindore@gmail.com