(2 ½ Hours) [Total Marks: 75]

N.B. 1) All questions are compulsory.
2) Figures to the right indicate marks.
3) Illustrations, in-depth answers and diagrams will be appreciated.
4) Mixing of sub-questions is not allowed.

Q. 1 Attempt All

(a) Select the correct alternative from the options given: (10M)

(i) Trojan Horse is an example of?
(a) Antivirus (b) Malware
(c) Attack (d) Virus

(ii) The act of gathering information about target system is called _____
(a) Social Gathering (b) Reconnaissance
(c) Stealing (d) Repudiation

(iii) ARP Poisoning is an example of what type of attack?
(a) Man in the middle (b) DOS
(c) Brute-force attack (d) DDOS

(iv) A Framework which is a collection of shell codes, exploits and payload is called?
(a) Simple (b) .NET
(c) Metasploit (d) Complex

(v) Which of the following is a system designed to attract and identify hackers?
(a) Honeypot (b) Firewall
(c) Bootstrap (d) IDS

(vi) ____ is done to make users access a spoof website rather than the intended destination.
(a) DOS (b) URL Obfuscation
(c) DDOS (d) Eavesdroping

(vii) Which of the following is not a type of Ethical Hacker?
(a) Grey (b) Black
(c) Red (d) White

(viii) Online purchase recommends websites beginning with https Protocol. This is referred as _____
(a) Security lab (b) firewall
(c) Secure socket layer (d) Encryption

(ix) _____is an action that compromises security in a system

(a) Threat (b) Attack

(c) Exploit (d) Vulnerability

(x) The main purpose of penetration test is to?

(a) Identify Vulnerabilities (b) Steal sensitive data

(c) Fix vulnerabilities (d) Exploit vulnerabilities

(b) **Fill in the blanks by selecting from the pool of options:** (5M)

(NMAP, SYN ACK, Privilege escalation, Exploit, IP)

(i) A DNS Translates domain name to _____

(ii) The _____command attacks the Target machine

(iii) SYN packet is always followed by _____

(iv) The _____tool helps to scan a Network

(v) The process of getting elevated access to the resource is called_____

Q. 2 Attempt the following (Any THREE) (15M)

(a) Explain the terms authentication and authorization in Security

(b) Describe the Security, Functionality, and Ease of Use Triangle.

(c) What is a CSRF attack and how it is done?

(d) Explain the term Keystroke logging

(e) Write a short note on URL Obfuscation

(f) Give a complete description of Rootkits with example

Q. 3 Attempt the following (Any THREE) (15M)

(a) Bringout the differences between Manual and Automated PenetrationTesting.

(b) Write a short note on Session Hijacking

(c) What is meant by packet sniffing.?Explain

(d) Explain Crawling/Spidering with example

(e) Describe the terms Internal and External Penetration testing

(f) Define Ethical Hacking and explain its need.?

Q. 4 Attempt the following (Any THREE) (15)

(a) Explain the term SYN Flooding.

(b) Write short note on VOIP Vulnerabilities.

(c) Explain SQL Injection attack

(d) What are the ways to achieve Mobile apps Security.?Explain

(e) Describe Honeypots and Evasion techniques

(f) Explain a Smurf Attack

Q. 5 **Attempt the following (Any FIVE)** (15)

(a) Define spyware and give example

(b) Explain the term Cookie Theft

(c) Define Black,Grey and white box penetration testing

(d) Define Scanning and mention its three types

(e) What is Buffer overflow

(f) Describe the term Steganography

(g) Define IP Spoofing

(h) What is XSS?

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