

(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) Eavesdropping
- (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?
