

Part-A

Answer all the question.

1) Penetration tester:

- * the penetration tester is used to exploit the data in unauthorised manner.
- * it will be useful to detect the vulnerability in the organisation and make sure to build a safety or security mechanisms.

2) Ethical hacking:

- * It is the authorised manner to exploit the data for identify the vulnerability and analysing it.
- * Objectives:
 - prevent from cyber attacks
 - protect sensitive data.

3) TCP / IP:

- * used to check the connection between the devices, network and application.
- * check and apply the techniques of four layers are application, transport, internet, network and physical.

4) Network attack:

- * it is held in the network protocol like it may be happened due to the low security mechanisms.

Malware attacks:

- * it is done with help of the user, it may include from downloading file, phishing, etc..

5) Footprinting:

- * the footprinting is the step-by-step framework and it is the important phase in ethical hacking to enumerate the information from the organisation used to identify the vulnerability.

b) footprint through webservices:

- * you can gather information about the organisation by the tools eg., WHOIS, Scratify.

footprint through search engines:

- * you can gather information about the target by using online search engine such as google, github, etc.

c) network scanning:

- * it is used to scan the network of TCP/IP for the data to pass through.
- * used to check the active networks.

Port Scanning:

* it is used to scan the ports which are open, closed, filtered.

* open → can receive data.

* close → can't receive any data

* filter → inbetween blocked by firewall.

- d)
- * scanning technique is used to gather information about the long hole eg. vulnerabilities of the target.
 - * if you need to identify the vulnerability, then scanning is the important method to detect it.

g) NetBIOS:

* Network basic input output service is used to enumerate the information from the target.

* it is used to identify the vulnerability, assess the risk and managing the security mechanisms.

10) Vulnerability assessment technique:-

- * footprint techniques used in search engine
- * footprint technique used in social network interface
- * footprint technique used in webservice
- * footprint technique used in website
- * footprint technique used in email.
- * also, Scanning & enumeration are also the technique