CompTIA

Exam Questions SY0-701

CompTIA Security+ Exam

NEW QUESTION 1
- (Exam Topic 1)
A software company is analyzing a process that detects software vulnerabilities at the earliest stage possible. The goal is to scan the source looking for unsecure practices and weaknesses before the application is deployed in a runtime environment. Which of the following would BEST assist the company with this objective?

A. Use fuzzing testing
B. Use a web vulnerability scanner
C. Use static code analysis
D. Use a penetration-testing OS

Answer: C

Explanation:
Using static code analysis would be the best approach to scan the source code looking for unsecure practices and weaknesses before the application is deployed in a runtime environment. This method involves analyzing the source code without actually running the software, which can identify security vulnerabilities that may not be detected by other testing methods. References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 6: Risk Management, pp. 292-295

NEW QUESTION 2
- (Exam Topic 1)
A store receives reports that shoppers' credit card information is being stolen. Upon further analysis, those same shoppers also withdrew money from an ATM in that store.
The attackers are using the targeted shoppers' credit card information to make online purchases. Which of the following attacks is the MOST probable cause?

A. Identity theft
B. RFID cloning
C. Shoulder surfing
D. Card skimming

Answer: D

Explanation:
The attackers are using card skimming to steal shoppers' credit card information, which they use to make online purchases. References:
- CompTIA Security+ Study Guide Exam SY0-601, Chapter 5

NEW QUESTION 3
- (Exam Topic 1)
A security researcher has alerted an organization that its sensitive user data was found for sale on a website. Which of the following should the organization use to inform the affected parties?

A. A An incident response plan
B. A communications plan
C. A business continuity plan
D. A disaster recovery plan

Answer: B

Explanation:
The organization should use a communications plan to inform the affected parties. A communications plan is a document that outlines how an organization will communicate with internal and external stakeholders during a crisis or incident. It should include details such as who will be responsible for communicating with different stakeholders, what channels will be used to communicate, and what messages will be communicated.
An incident response plan is a document that outlines the steps an organization will take to respond to a security incident or data breach. A business continuity plan is a document that outlines how an organization will continue to operate during and after a disruption. A disaster recovery plan is a document that outlines how an organization will recover its IT infrastructure and data after a disaster.

NEW QUESTION 4
- (Exam Topic 1)
A security analyst was deploying a new website and found a connection attempting to authenticate on the site's portal. While Investigating The incident, the analyst identified the following Input in the username field:

```
admin' or 1=1--
```

Which of the following BEST explains this type of attack?

A. DLL injection to hijack administrator services
B. SQLi on the field to bypass authentication
C. Execution of a stored XSS on the website
D. Code to execute a race condition on the server

Answer: B

Explanation:
The input "admin' or 1=1--" in the username field is an example of SQL injection (SQLi) attack. In this case, the attacker is attempting to bypass authentication by injecting SQL code into the username field that will cause the authentication check to always return true. References: CompTIA Security+ SY0-601 Exam Objectives: 3.1 Given a scenario, use appropriate software tools to assess the security posture of an organization.

NEW QUESTION 5
- (Exam Topic 1)

Which of the following provides a catalog of security and privacy controls related to the United States federal information systems?

A. GDPR
B. PCI DSS
C. ISO 27000
D. NIST 800-53

Answer: D

Explanation:
NIST 800-53 provides a catalog of security and privacy controls related to the United States federal information systems. References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 3: Architecture and Design, pp. 123-125

NEW QUESTION 6
- (Exam Topic 1)
A company acquired several other small companies The company thai acquired the others is transitioning network services to the cloud The company wants to make sure that performance and security remain intact Which of the following BEST meets both requirements?

A. High availability
B. Application security
C. Segmentation
D. Integration and auditing

Answer: A

Explanation:
High availability refers to the ability of a system or service to remain operational and available to users with minimal downtime. By ensuring high availability, the company can maintain good performance and ensure that users have access to the network services they need. High availability can also improve security, as it helps to prevent disruptions that could potentially be caused by security incidents or other issues.

NEW QUESTION 7
- (Exam Topic 1)
An information security manager for an organization is completing a PCI DSS self-assessment for the first time. which of the is following MOST likely reason for this type of assessment?

A. An international expansion project is currently underway.
B. Outside consultants utilize this tool to measure security maturity.
C. The organization is expecting to process credit card information.
D. A government regulator has requested this audit to be completed

Answer: C

Explanation:
PCI DSS (Payment Card Industry Data Security Standard) is a set of security standards designed to ensure that all companies that accept, process, store, or transmit credit card information maintain a secure environment. Any organization that accepts credit card payments is required to comply with PCI DSS.

NEW QUESTION 8
- (Exam Topic 1)
A security analyst is running a vulnerability scan to check for missing patches during a suspected security rodent During which of the following phases of the response process is this activity MOST likely occurring?

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

Answer: B

Explanation:
Vulnerability scanning is a proactive security measure used to identify vulnerabilities in the network and systems. References: CompTIA Security+ Study Guide 601, Chapter 4

NEW QUESTION 9
- (Exam Topic 1)
A systems engineer is building a new system for production. Which of the following is the FINAL step to be performed prior to promoting to production?

A. Disable unneeded services.
B. Install the latest security patches.
C. Run a vulnerability scan.
D. Encrypt all disks.

Answer: C

Explanation:
Running a vulnerability scan is the final step to be performed prior to promoting a system to production. This allows any remaining security issues to be identified and resolved before the system is put into production. References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 3

NEW QUESTION 10
- (Exam Topic 1)
Ann, a customer, received a notification from her mortgage company stating her PII may be shared with partners, affiliates, and associates to maintain day-to-day business operations.
Which of the following documents did Ann receive?

A. An annual privacy notice
B. A non-disclosure agreement
C. A privileged-user agreement
D. A memorandum of understanding

Answer: A

Explanation:
Ann received an annual privacy notice from her mortgage company. An annual privacy notice is a statement from a financial institution or creditor that outlines the institution's privacy policy and explains how the institution collects, uses, and shares customers' personal information. It informs the customer about their rights under the Gramm-Leach-Bliley Act (GLBA) and the institution's practices for protecting their personal information. References:
CompTIA Security+ Certification Exam Objectives - Exam SY0-601

NEW QUESTION 10
- (Exam Topic 1)
A security engineer is hardening existing solutions to reduce application vulnerabilities. Which of the following solutions should the engineer implement FIRST? (Select TWO)

A. Auto-update
B. HTTP headers
C. Secure cookies
D. Third-party updates
E. Full disk encryption
F. Sandboxing
G. Hardware encryption

Answer: AF

Explanation:
Auto-update can help keep the app up-to-date with the latest security fixes and enhancements, and reduce the risk of exploitation by attackers who target outdated or vulnerable versions of the app.
Sandboxing can help isolate the app from other processes and resources on the system, and limit its access and permissions to only what is necessary. Sandboxing can help prevent the app from being affected by or affecting other applications or system components, and contain any potential damage in case of a breach.

NEW QUESTION 12
- (Exam Topic 1)
A financial institution would like to store its customer data in a cloud but still allow the data to be accessed and manipulated while encrypted. Doing so would prevent the cloud service provider from being able to decipher the data due to its sensitivity. The financial institution is not concerned about computational overheads and slow speeds. Which of the following cryptographic techniques would BEST meet the requirement?

A. Asymmetric
B. Symmetric
C. Homomorphic
D. Ephemeral

Answer: B

Explanation:
Symmetric encryption allows data to be encrypted and decrypted using the same key. This is useful when the data needs to be accessed and manipulated while still encrypted. References: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 6

NEW QUESTION 17
- (Exam Topic 1)
When planning to build a virtual environment, an administrator need to achieve the following,
•Establish polices in Limit who can create new VMs
•Allocate resources according to actual utilization‘
•Require justication for requests outside of the standard requirements.
•Create standardized categories based on size and resource requirements Which of the following is the administrator MOST likely trying to do?

A. Implement IaaS replication
B. Product against VM escape
C. Deploy a PaaS
D. Avoid VM sprawl

Answer: D

Explanation:
The administrator is most likely trying to avoid VM sprawl, which occurs when too many VMs are created and managed poorly, leading to resource waste and increased security risks. The listed actions can help establish policies, resource allocation, and categorization to prevent unnecessary VM creation and ensure proper management. Reference: CompTIA Security+ Certification Exam Objectives, Exam SY0-601, 3.6 Given a scenario, implement the appropriate virtualization components.

NEW QUESTION 22
- (Exam Topic 1)
An organization wants to enable built-in FDE on all laptops Which of the following should the organization ensure is Installed on all laptops?

A. TPM
B. CA
C. SAML
D. CRL

Answer: A

Explanation:
The organization should ensure that a Trusted Platform Module (TPM) is installed on all laptops in order to enable built-in Full Disk Encryption (FDE). TPM is a hardware-based security chip that stores encryption keys and helps to protect data from malicious attacks. It is important to ensure that the TPM is properly configured and enabled in order to get the most out of FDE.

NEW QUESTION 26
- (Exam Topic 1)
A company has discovered unauthorized devices are using its WiFi network, and it wants to harden the access point to improve security. Which f the following configuration should an analysis enable
To improve security? (Select TWO.)

A. RADIUS
B. PEAP
C. WPS
D. WEP-EKIP
E. SSL
F. WPA2-PSK

Answer: AF

Explanation:
To improve the security of the WiFi network and prevent unauthorized devices from accessing the network, the configuration options of RADIUS and WPA2-PSK should be enabled. RADIUS (Remote Authentication Dial-In User Service) is an authentication protocol that can be used to control access to the WiFi network. It can provide stronger authentication and authorization than WEP and WPA. WPA2-PSK (WiFi Protected Access 2 with Pre-Shared Key) is a security protocol that uses stronger encryption than WEP and WPA. It requires a pre-shared key (PSK) to be entered on each device that wants to access the network. This helps prevent unauthorized devices from accessing the network.

NEW QUESTION 28
- (Exam Topic 1)
A network analyst is investigating compromised corporate information. The analyst leads to a theory that network traffic was intercepted before being transmitted to the internet. The following output was captured on an internal host:

```
IPv4 Address ..... 10.0.0.87
Subnet Mask  ..... 255.255.255.0
Default Gateway ..... 10.0.0.1


Internet Address      Physical Address
10.10.255.255         ff-ff-ff-ff-ff-ff
10.0.0.1              aa-aa-aa-aa-aa-aa
10.0.0.254            aa-aa-aa-aa-aa-aa
224.0.0.2             01-00-5e-00-00-02
```

Based on the IoCS, which of the following was the MOST likely attack used to compromise the network communication?

A. Denial of service
B. ARP poisoning
C. Command injection
D. MAC flooding

Answer: B

Explanation:
ARP poisoning (also known as ARP spoofing) is a type of attack where an attacker sends falsified ARP messages over a local area network to link the attacker's MAC address with the IP address of another host on the network. References: CompTIA Security+ Certification Exam Objectives - 2.5 Given a scenario, analyze potential indicators to determine the type of attack. Study Guide: Chapter 6, page 271.

NEW QUESTION 29
- (Exam Topic 1)
Which of the following cryptographic concepts would a security engineer utilize while implementing non-repudiation? (Select TWO)

A. Block cipher
B. Hashing
C. Private key
D. Perfect forward secrecy
E. Salting
F. Symmetric keys

Answer: BC

Explanation:
Non-repudiation is the ability to ensure that a party cannot deny a previous action or event. Cryptographic concepts that can be used to implement non-repudiation include hashing and digital signatures, which use a private key to sign a message and ensure that the signature is unique to the signer. References: CompTIA Security+ Certification Exam Objectives (SY0-601)

NEW QUESTION 33
- (Exam Topic 1)
A junior security analyst is reviewing web server logs and identifies the following pattern in the log file:

```
http://comptia.org/../../../etc/passwd
```

Which ol the following types of attacks is being attempted and how can it be mitigated?

A. XS
B. mplement a SIEM
C. CSR
D. implement an IPS
E. Directory traversal implement a WAF
F. SQL infection, mplement an IDS

Answer: C

Explanation:
Detailed
The attack being attempted is directory traversal, which is a web application attack that allows an attacker to access files and directories outside of the web root directory. A WAF can help mitigate this attack by detecting and blocking attempts to access files outside of the web root directory.
References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 4: Securing Application Development and Deployment, p. 191

NEW QUESTION 38
- (Exam Topic 1)
A security administrator is setting up a SIEM to help monitor for notable events across the enterprise. Which of the following control types does this BEST represent?

A. Preventive
B. Compensating
C. Corrective
D. Detective

Answer: D

Explanation:
A SIEM is a security solution that helps detect security incidents by monitoring for notable events across the enterprise. A detective control is a control that is designed to detect security incidents and respond to them. Therefore, a SIEM represents a detective control.
Reference: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 3: Architecture and Design

NEW QUESTION 40
- (Exam Topic 1)
A user reports trouble using a corporate laptop. The laptop freezes and responds slowly when writing documents and the mouse pointer occasional disappears. The task list shows the following results

Name	CPU %	Memory	Network %
Calculator	0%	4 1MB	0Mbps
Chrome	0.2%	207 1MB	0 1Mbps
Explorer	99.7%	2 15GB	0 1Mbps
Notepad	0%	3 9MB	0Mbps

Which of the following is MOST likely the issue?

A. RAT
B. PUP
C. Spyware
D. Keylogger

Answer: C

Explanation:
Spyware is malicious software that can cause a computer to slow down or freeze. It can also cause the mouse pointer to disappear. The task list shows an application named "spyware.exe" running, indicating that spyware is likely the issue. References:
- CompTIA Security+ Certification Exam Objectives 6.0: Given a scenario, analyze indicators of compromise and determine the type of malware.
- CompTIA Security+ Study Guide, Sixth Edition, pages 125-126

NEW QUESTION 45
- (Exam Topic 1)
A grocery store is expressing security and reliability concerns regarding the on-site backup strategy currently being performed by locally attached disks. The main concerns are the physical security of the backup media and the durability of the data stored on these devices Which of the following is a cost-effective approach to address these concerns?

A. Enhance resiliency by adding a hardware RAID.
B. Move data to a tape library and store the tapes off-site
C. Install a local network-attached storage.

D. Migrate to a cloud backup solution

Answer: D

Explanation:
a backup strategy is a plan that defines how to protect data from loss or corruption by creating and storing copies of data on a different medium or location1. A backup strategy should consider the security and reliability of the backup data and the backup storage234.
Based on these definitions, the best option that is a cost-effective approach to address the security and reliability concerns regarding the on-site backup strategy would be D. Migrate to a cloud backup solutio2n4. A cloud backup solution can provide several benefits, such as:
- Enhanced physical security of the backup data by storing it in a remote location that is protected by multiple layers of security measures.
- Enhanced durability of the backup data by storing it on highly reliable storage devices that are replicated across multiple availability zones or regions.
- Reduced costs of backup storage by paying only for the amount of data stored and transferred, and by using features such as compression, deduplication, encryption, and lifecycle management.
- Increased flexibility and scalability of backup storage by choosing from various storage classes and tiers that match the performance and availability requirements of the backup data.

NEW QUESTION 47
- (Exam Topic 1)
A security architect is implementing a new email architecture for a company. Due to security concerns, the Chief Information Security Officer would like the new architecture to support email encryption, as well as provide for digital signatures. Which of the following should the architect implement?

A. TOP
B. IMAP
C. HTTPS
D. S/MIME

Answer: D

Explanation:
S/MIME (Secure/Multipurpose Internet Mail Extensions) is a protocol that enables secure email messages to be sent and received. It provides email encryption, as well as digital signatures, which can be used to verify the authenticity of the sender. S/MIME can be used with a variety of email protocols, including POP and IMAP.
References:
- https://www.comptia.org/content/guides/what-is-smime
- CompTIA Security+ Study Guide, Sixth Edition (SY0-601), page 139

NEW QUESTION 48
- (Exam Topic 1)
As part of the lessons-learned phase, the SOC is tasked with building methods to detect if a previous incident is happening again. Which of the following would allow the security analyst to alert the SOC if an event is reoccurring?

A. Creating a playbook within the SOAR
B. Implementing rules in the NGFW
C. Updating the DLP hash database
D. Publishing a new CRL with revoked certificates

Answer: A

Explanation:
Creating a playbook within the Security Orchestration, Automation and Response (SOAR) tool would allow the security analyst to detect if an event is reoccurring by triggering automated actions based on the previous incident's characteristics. This can help the SOC to respond quickly and effectively to the incident.
References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 7: Incident Response, pp. 352-354

NEW QUESTION 52
- (Exam Topic 1)
The spread of misinformation surrounding the outbreak of a novel virus on election day led to eligible voters choosing not to take the risk of going the polls. This is an example of:

A. prepending.
B. an influence campaign.
C. a watering-hole attack.
D. intimidation.
E. information elicitation.

Answer: B

Explanation:
This scenario describes an influence campaign, where false information is spread to influence or manipulate people's beliefs or actions. In this case, the misinformation led eligible voters to avoid polling places, which influenced the outcome of the election.

NEW QUESTION 57
- (Exam Topic 1)
An employee received multiple messages on a mobile device. The messages instructing the employee to pair the device to an unknown device. Which of the following BEST describes What a malicious person might be doing to cause this issue to occur?

A. Jamming
B. Bluesnarfing
C. Evil twin

D. Rogue access point

Answer: B

Explanation:
Bluesnarfing is a hacking technique that exploits Bluetooth connections to snatch data from a wireless device. An attacker can perform bluesnarfing when the Bluetooth function is on and your device is discoverable by other devices within range. In some cases, attackers can even make calls from their victim's phon1e.

NEW QUESTION 62
- (Exam Topic 1)
Which of the following must be in place before implementing a BCP?

A. SLA
B. AUP
C. NDA
D. BIA

Answer: D

Explanation:
A Business Impact Analysis (BIA) is a critical component of a Business Continuity Plan (BCP). It identifies and prioritizes critical business functions and determines the impact of their disruption. References: CompTIA Security+ Study Guide 601, Chapter 10

NEW QUESTION 67
- (Exam Topic 1)
Which of the following roles would MOST likely have direct access to the senior management team?

A. Data custodian
B. Data owner
C. Data protection officer
D. Data controller

Answer: C

Explanation:
A data protection officer (DPO) is a role that oversees the data protection strategy and compliance of an organization. A DPO is responsible for ensuring that the organization follows data protection laws and regulations, such as the General Data Protection Regulation (GDPR), and protects the privacy rights of data subjects. A DPO also acts as a liaison between the organization and data protection authorities, as well as data subjects and other stakeholders.
A DPO would most likely have direct access to the senior management team, as they need to report on data protection issues, risks, and incidents, and advise on data protection policies and practices.
The other options are not correct because:
- A. Data custodian is a role that implements and maintains the technical controls and procedures for data security and integrity. A data custodian does not have direct access to the senior management team, as they are more involved in operational tasks than strategic decisions.
- B. Data owner is a role that determines the classification and usage of data within an organization. A data owner does not have direct access to the senior management team, as they are more involved in business functions than data protection compliance.
- D. Data controller is a role that determines the purposes and means of processing personal data within an organization. A data controller does not have direct access to the senior management team, as they are more involved in data processing activities than data protection oversight.
According to CompTIA Security+ SY0-601 Exam Objectives 2.3 Given a scenario, implement secure protocols:
"A data protection officer (DPO) is a role that oversees the data protection strategy and compliance of an organization."
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://gdpr-info.eu/issues/data-protection-officer/

NEW QUESTION 72
- (Exam Topic 1)
The Chief Information Security Officer (CISO) has decided to reorganize security staff to concentrate on incident response and to outsource outbound Internet URL categorization and filtering to an outside company. Additionally, the CISO would like this solution to provide the same protections even when a company laptop or mobile device is away from a home office. Which of the following should the CISO choose?

A. CASB
B. Next-generation SWG
C. NGFW
D. Web-application firewall

Answer: B

Explanation:
The solution that the CISO should choose is Next-generation Secure Web Gateway (SWG), which provides URL filtering and categorization to prevent users from accessing malicious sites, even when they are away from the office. NGFWs are typically cloud-based and offer multiple security layers, including malware detection, intrusion prevention, and data loss prevention. References:
- CompTIA Security+ Study Guide Exam SY0-601, Chapter 4

NEW QUESTION 76
- (Exam Topic 1)
The technology department at a large global company is expanding its Wi-Fi network infrastructure at the headquarters building Which of the following should be closely coordinated between the technology, cybersecurity, and physical security departments?

A. Authentication protocol
B. Encryption type

C. WAP placement
D. VPN configuration

Answer: C

Explanation:
WAP stands for wireless access point, which is a device that allows wireless devices to connect to a wired network using Wi-Fi or Bluetooth. WAP placement refers to where and how WAPs are installed in a building or area.
WAP placement should be closely coordinated between the technology, cybersecurity, and physical security departments because it affects several aspects of network performance and security, such as:
- Coverage: WAP placement determines how well wireless devices can access the network throughout the building or area. WAPs should be placed in locations that provide optimal signal strength and avoid interference from other sources.
- Capacity: WAP placement determines how many wireless devices can connect to the network simultaneously without affecting network speed or quality. WAPs should be placed in locations that balance network load and avoid congestion or bottlenecks.
- Security: WAP placement determines how vulnerable wireless devices are to eavesdropping or hacking attacks from outside or inside sources. WAPs should be placed in locations that minimize exposure to unauthorized access and maximize encryption and authentication methods.

NEW QUESTION 78
- (Exam Topic 1)
Per company security policy, IT staff members are required to have separate credentials to perform administrative functions using just-in-time permissions. Which of the following solutions is the company Implementing?

A. Privileged access management
B. SSO
C. RADIUS
D. Attribute-based access control

Answer: A

Explanation:
The company is implementing privileged access management, which provides just-in-time permissions for administrative functions.

NEW QUESTION 79
- (Exam Topic 1)
During an investigation, the incident response team discovers that multiple administrator accounts were suspected of being compromised. The host audit logs indicate a repeated brute-force attack on a single administrator account followed by suspicious logins from unfamiliar geographic locations. Which of the following data sources would be BEST to use to assess the accounts impacted by this attack?

A. User behavior analytics
B. Dump files
C. Bandwidth monitors
D. Protocol analyzer output

Answer: A

Explanation:
User behavior analytics (UBA) would be the best data source to assess the accounts impacted by the attack, as it can identify abnormal activity, such as repeated brute-force attacks and logins from unfamiliar geographic locations, and provide insights into the behavior of the impacted accounts. References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 7: Incident Response, pp. 338-341

NEW QUESTION 83
- (Exam Topic 1)
one of the attendees starts to notice delays in the connection. and the HTTPS site requests are reverting to HTTP. Which of the following BEST describes what is happening?

A. Birthday collision on the certificate key
B. DNS hacking to reroute traffic
C. Brute force to the access point
D. A SSL/TLS downgrade

Answer: D

Explanation:
The scenario describes a Man-in-the-Middle (MitM) attack where the attacker intercepts traffic and downgrades the secure SSL/TLS connection to an insecure HTTP connection. This type of attack is commonly known as SSL/TLS downgrade attack or a stripping attack. The attacker is able to see and modify the communication between the client and server.

NEW QUESTION 88
- (Exam Topic 1)
Which of the following authentication methods sends out a unique password to be used within a specific number of seconds?

A. TOTP
B. Biometrics
C. Kerberos
D. LDAP

Answer: A

Explanation:
Time-based One-Time Password (TOTP) is a type of authentication method that sends out a unique password to be used within a specific number of seconds. It uses a combination of a shared secret key and the current time to generate a one-time password. TOTP is commonly used for two-factor authentication (2FA) to provide an additional layer of security beyond just a username and password.

NEW QUESTION 89
- (Exam Topic 1)
The Chief Technology Officer of a local college would like visitors to utilize the school's WiFi but must be able to associate potential malicious activity to a specific person. Which of the following would BEST allow this objective to be met?

A. Requiring all new, on-site visitors to configure their devices to use WPS
B. Implementing a new SSID for every event hosted by the college that has visitors
C. Creating a unique PSK for every visitor when they arrive at the reception area
D. Deploying a captive portal to capture visitors' MAC addresses and names

Answer: D

Explanation:
A captive portal is a web page that requires visitors to authenticate or agree to an acceptable use policy before allowing access to the network. By capturing visitors' MAC addresses and names, potential malicious activity can be traced back to a specific person.

NEW QUESTION 94
- (Exam Topic 1)
Remote workers in an organization use company-provided laptops with locally installed applications and locally stored data Users can store data on a remote server using an encrypted connection. The organization discovered data stored on a laptop had been made available to the public Which of the following security solutions would mitigate the risk of future data disclosures?

A. FDE
B. TPM
C. HIDS
D. VPN

Answer: A

Explanation:
Based on these definitions, the best security solution to mitigate the risk of future data disclosures from a laptop would be FDE123. FDE would prevent unauthorized access to the data stored on the laptop even if it is stolen or lost. FDE can also use TPM to store the encryption key and ensure that only trusted software can decrypt the data3. HIDS and VPN are not directly related to data encryption, but they can provide additional security benefits by detecting intrusions and protecting network traffic respectively.

NEW QUESTION 99
- (Exam Topic 1)
An attacker replaces a digitally signed document with another version that goes unnoticed Upon reviewing the document's contents the author notices some additional verbiage that was not originally in the document but cannot validate an integrity issue. Which of the following attacks was used?

A. Cryptomalware
B. Hash substitution
C. Collision
D. Phishing

Answer: B

Explanation:
This type of attack occurs when an attacker replaces a digitally signed document with another version that has a different hash value. The author would be able to notice the additional verbiage, however, since the hash value would have changed, they would not be able to validate an integrity issue.

NEW QUESTION 103
- (Exam Topic 1)
During an incident a company CIRT determine it is necessary to observe the continued network-based transaction between a callback domain and the malware running on an enterprise PC. Which of the following techniques would be BEST to enable this activity while reducing the risk of lateral spread and the risk that the adversary would notice any changes?

A. Physical move the PC to a separate internet pint of presence
B. Create and apply micro segmentation rules.
C. Emulate the malware in a heavily monitored DM Z segment.
D. Apply network blacklisting rules for the adversary domain

Answer: C

Explanation:
To observe the continued network-based transaction between a callback domain and the malware running on an enterprise PC while reducing the risk of lateral spread and the risk that the adversary would notice any changes, the best technique to use is to emulate the malware in a heavily monitored DMZ segment. This is a secure environment that is isolated from the rest of the network and can be heavily monitored to detect any suspicious activity. By emulating the malware in this environment, the activity can be observed without the risk of lateral spread or detection by the adversary. References:
https://www.sans.org/blog/incident-response-fundamentals-why-is-the-dmz-so-important/

NEW QUESTION 106

- (Exam Topic 2)
A company recently upgraded its authentication infrastructure and now has more computing power. Which of the following should the company consider using to ensure user credentials are
being transmitted and stored more securely?

A. Blockchain
B. Salting
C. Quantum
D. Digital signature

Answer: B

Explanation:
Salting is a technique that adds random data to user credentials before hashing them. This makes the hashed credentials more secure and resistant to brute-force attacks or rainbow table attacks. Salting also ensures that two users with the same password will have different hashed credentials.
A company that has more computing power can consider using salting to ensure user credentials are being transmitted and stored more securely. Salting can increase the complexity and entropy of the hashed credentials, making them harder to crack or reverse.

NEW QUESTION 108
- (Exam Topic 2)
Which of the following procedures would be performed after the root cause of a security incident has been identified to help avoid future incidents from occurring?

A. Walk-throughs
B. Lessons learned
C. Attack framework alignment
D. Containment

Answer: B

Explanation:
After the root cause of a security incident has been identified, it is important to take the time to analyze what went wrong and how it could have been prevented. This process is known as “lessons learned” and allows organizations to identify potential improvements to their security processes and protocols. Lessons learned typically involve a review of the incident and the steps taken to address it, a review of the security systems and procedures in place, and an analysis of any potential changes that can be made to prevent similar incidents from occurring in the future.

NEW QUESTION 113
- (Exam Topic 2)
An attacker was eavesdropping on a user who was shopping online. The attacker was able to spoof the IP address associated with the shopping site. Later, the user received an email regarding credit card statement with unusual purchases. Which of the following attacks took place?

A. On-path attack
B. Protocol poisoning
C. Domain hijacking
D. Bluejacking

Answer: A

Explanation:
An on-path attack is an attack that took place when an attacker was eavesdropping on a user who was shopping online and was able to spoof the IP address associated with the shopping site. An on-path attack is a type of network attack that involves intercepting or modifying traffic between two parties by placing oneself in the communication path. An on-path attack can also be called a man-in-the-middle attack or a session hijacking attack. An on-path attacker can steal sensitive information, such as credit card details, or redirect the user to a malicious website. References: https://www.comptia.org/blog/what-is-a-man-in-the-middle-attack
https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pd

NEW QUESTION 114
- (Exam Topic 2)
A network manager is concerned that business may be negatively impacted if the firewall in its data center goes offline. The manager would like to implement a high availability pair to:

A. decrease the mean time between failures.
B. remove the single point of failure.
C. cut down the mean time to repair
D. reduce the recovery time objective

Answer: B

Explanation:
A single point of failure is a component or element of a system that, if it fails, will cause the entire system to fail or stop functioning. It can pose a high risk and impact for business continuity and availability. A high availability pair is a configuration that involves two identical devices or systems that operate in parallel and provide redundancy and failover capabilities. It can remove the single point of failure by ensuring that if one device or system fails, the other one can take over its functions without interruption or downtime.

NEW QUESTION 115
- (Exam Topic 2)
An organization has hired a security analyst to perform a penetration test The analyst captures 1Gb worth of inbound network traffic to the server and transfers the pcap back to the machine for analysis. Which of the following tools should the analyst use to further review the pcap?

A. Nmap

B. CURL
C. Neat
D. Wireshark

Answer: D

Explanation:
Wireshark is a tool that can analyze pcap files, which are files that capture network traffic. Wireshark can display the packets, protocols, and other details of the network traffic in a graphical user interface. Nmap is a tool that can scan networks and hosts for open ports and services. CURL is a tool that can transfer data from or to a server using various protocols. Neat is a tool that can test network performance and quality.

NEW QUESTION 120
- (Exam Topic 2)
Which of the following would be most effective to contain a rapidly spreading attack that is affecting a large number of organizations?

A. Machine learning
B. DNS sinkhole
C. Blocklist
D. Honey pot

Answer: B

Explanation:
A DNS sinkhole would be most effective to contain a rapidly spreading attack that is affecting a large number of organizations. A DNS sinkhole is a technique that involves redirecting malicious or unwanted domain names to an alternative IP address, such as a black hole, a honeypot, or a warning page. A DNS sinkhole can help to prevent or disrupt the communication between infected systems and command-and-control servers, malware distribution sites, phishing sites, or botnets. A DNS sinkhole can also help to identify and isolate infected systems by monitoring the traffic to the sinkhole IP address. References:
https://www.comptia.org/blog/what-is-a-dns-sinkhole
https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pd

NEW QUESTION 125
- (Exam Topic 2)
A technician is setting up a new firewall on a network segment to allow web traffic to the internet while hardening the network. After the firewall is configured, users receive errors stating the website could not be located. Which of the following would best correct the issue?

A. Setting an explicit deny to all traffic using port 80 instead of 443
B. Moving the implicit deny from the bottom of the rule set to the top
C. Configuring the first line in the rule set to allow all traffic
D. Ensuring that port 53 has been explicitly allowed in the rule set

Answer: D

Explanation:
Port 53 is the default port for DNS traffic. If the firewall is blocking port 53, then users will not be able to resolve domain names and will receive errors stating that the website could not be located.
The other options would not correct the issue. Setting an explicit deny to all traffic using port 80 instead of 443 would block all HTTP traffic, not just web traffic. Moving the implicit deny from the bottom of the rule set to the top would make the deny rule more restrictive, which would not solve the issue. Configuring the first line in the rule set to allow all traffic would allow all traffic, including malicious traffic, which is not a good security practice.
Therefore, the best way to correct the issue is to ensure that port 53 has been explicitly allowed in the rule set. Here are some additional information about DNS traffic:
- DNS traffic is used to resolve domain names to IP addresses.
- DNS traffic is typically unencrypted, which makes it vulnerable to eavesdropping.
- There are a number of ways to secure DNS traffic, such as using DNS over HTTPS (DoH) or DNS over TLS (DoT).

NEW QUESTION 130
- (Exam Topic 2)
A security engineer is investigating a penetration test report that states the company website is vulnerable to a web application attack. While checking the web logs from the time of the test, the engineer notices several invalid web form submissions using an unusual address: "SELECT * FROM customername". Which of the following is most likely being attempted?

A. Directory traversal
B. SQL injection
C. Privilege escalation
D. Cross-site scripting

Answer: B

Explanation:
SQL injection is a web application attack that involves inserting malicious SQL statements into an input field, such as a web form, to manipulate or access the database behind the application. SQL injection can be used to perform various actions, such as reading, modifying, or deleting data, executing commands on the database server, or bypassing authentication. In this scenario, the attacker is trying to use a SQL statement “SELECT * FROM customername” to retrieve all data from the customername table in the database.

NEW QUESTION 131
- (Exam Topic 2)
Which Of the following vulnerabilities is exploited an attacker Overwrite a reg-ister with a malicious address that changes the execution path?

A. VM escape

B. SQL injection
C. Buffer overflow
D. Race condition

Answer: C

Explanation:
A buffer overflow is a type of vulnerability that occurs when an attacker sends more data than a buffer can
hold, causing the excess data to overwrite adjacent memory locations such as registers. It can allow an attacker to overwrite a register with a malicious address that changes the execution path and executes arbitrary code on the target system

NEW QUESTION 136
- (Exam Topic 2)
A network architect wants a server to have the ability to retain network availability even if one of the network switches it is connected to goes down. Which of the following should the architect implement on the server to achieve this goal?

A. RAID
B. UPS
C. NIC teaming
D. Load balancing

Answer: C

Explanation:
NIC Teaming is a feature that allows a server to be connected to multiple network switches, providing redundancy and increased network availability. If one of the switches goes down, the server will still be able to send and receive data through one of the other switches. To configure NIC Teaming in Windows Server, see Microsoft's documentation:
https://docs.microsoft.com/en-us/windows-server/networking/technologies/nic-teaming. For more information on NIC Teaming and other network redundancy features, refer to the CompTIA Security+ SY0-601 Official Text Book and Resources.

NEW QUESTION 138
- (Exam Topic 2)
Select the appropriate attack and remediation from each drop-down list to label the corresponding attack with its remediation.
INSTRUCTIONS
Not all attacks and remediation actions will be used.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

Attack Description	Target	Attack Identified	BEST Preventative or Remediation Action
An attacker sends multiple SYN packets from multiple sources.	Web server	Botnet / RAT / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing	Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services
The attack establishes a connection, which allows remote commands to be executed.	User	Botnet / RAT / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing	Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services
The attack is self propagating and compromises a SQL database using well-known credentials as it moves through the network.	Database server	Botnet / RAT / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing	Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services
The attacker uses hardware to remotely monitor a user's input activity to harvest credentials.	Executive	Botnet / RAT / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing	Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services
The attacker embeds hidden access in an internally developed application that bypasses account login.	Application	Botnet / RAT / Logic Bomb / Backdoor / Virus / Spyware / Worm / Adware / Ransomware / Keylogger / Phishing	Enable DDoS protection / Patch vulnerable systems / Disable vulnerable services / Change the default system password / Update the cryptographic algorithms / Change the default application password / Implement 2FA using push notification / Conduct a code review / Implement application fuzzing / Implement a host-based IPS / Disable remote access services

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Web serverBotnet Enable DDoS protectionUser RAT Implement a host-based IPSDatabase server Worm Change the default application passwordExecutive KeyloggerDisable vulnerable servicesApplication Backdoor Implement 2FA using push notification
A screenshot of a computer program Description automatically generated with low confidence

Attack Description	Target	Attack Identified	BEST Preventative or Remediation Action
An attacker sends multiple SYN packets from multiple sources.	Web server	Botnet	Enable DDoS protection
The attack establishes a connection, which allows remote commands to be executed.	User	RAT	Implement a host-based IPS
The attack is self propagating and compromises a SQL database using well-known credentials as it moves through the network.	Database server	Worm	Change the default application password
The attacker uses hardware to remotely monitor a user's input activity to harvest credentials.	Executive	Keylogger	Disable vulnerable services
The attacker embeds hidden access in an internally developed application that bypasses account login.	Application	Backdoor	Implement 2FA using push notification

NEW QUESTION 143
- (Exam Topic 2)
A malicious actor recently penetrated a company's network and moved laterally to the data center Upon investigation a forensics firm wants to know what was in the memory on the compromised server Which of the following files should be given to the forensics firm?

A. Security
B. Application
C. Dump
D. Syslog

Answer: C

Explanation:
A dump file is a file that contains the contents of memory at a specific point in time. It can be used for debugging or forensic analysis of a system or an application. It can reveal what was in the memory on the compromised server, such as processes, variables, passwords, encryption keys, etc.

NEW QUESTION 147
- (Exam Topic 2)
An air traffic controller receives a change in flight plan for an morning aircraft over the phone. The air traffic controller compares the change to what appears on radar and determines the information to be false. As a result, the air traffic controller is able to prevent an incident from occurring. Which of the following is this scenario an example of?

A. Mobile hijacking
B. Vishing
C. Unsecure VoIP protocols
D. SPIM attack

Answer: B

Explanation:
Vishing is a form of phishing that uses voice calls or voice messages to trick victims into revealing personal information, such as credit card numbers, bank details, or passwords. Vishing often uses spoofed phone numbers, voice-altering software, or social engineering techniques to impersonate legitimate organizations or authorities. In this scenario, the caller pretended to be someone who could change the flight plan of an aircraft, which could have caused a serious incident.

NEW QUESTION 149
- (Exam Topic 2)
A company recently suffered a breach in which an attacker was able to access the internal mail servers and directly access several user inboxes. A large number of email messages were later posted online. Which of the following would bast prevent email contents from being released should another breach occur?

A. Implement S/MIME to encrypt the emails at rest.
B. Enable full disk encryption on the mail servers.
C. Use digital certificates when accessing email via the web.
D. Configure web traffic to only use TLS-enabled channels.

Answer: A

Explanation:
S/MIME stands for Secure/Multipurpose Internet Mail Extensions, which is a standard for encrypting and digitally signing email messages. S/MIME can provide confidentiality, integrity, authentication and
non-repudiation for email communications. S/MIME can encrypt the emails at rest, which means that the
email contents are protected even if they are stored on the mail servers or the user inboxes. S/MIME can prevent email contents from being released should another breach occur, as the attacker would not be able to decrypt or read the encrypted emails without the proper keys or certificates. Verified References:
> Cryptography Concepts – SY0-601 CompTIA Security+ : 2.8 https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/cryptography-concepts-2/ (See S/MIME)
> Mail Encryption - CompTIA Security+ All-in-One Exam Guide (Exam SY0-301) https://www.oreilly.com/library/view/comptia-security-all-in-one/9780071771474/sec5_chap14.html (See S/MIME)
> Symmetric and Asymmetric Encryption – CompTIA Security+ SY0-501 – 6.1 https://www.professormesser.com/security-plus/sy0-501/symmetric-and-asymmetric-encryption/ (See S/MIME)

NEW QUESTION 150
- (Exam Topic 2)
A security operations technician is searching the log named /vax/messages for any events that were associated with a workstation with the IP address 10.1.1.1. Which of the following would provide this information?

A. cat /var/messages | grep 10.1.1.1
B. grep 10.1.1.1 | cat /var/messages
C. grep /var/messages | cat 10.1.1.1
D. cat 10.1.1.1 | grep /var/messages

Answer: A

Explanation:
the cat command reads the file and streams its content to standard output. The | symbol connects the output of the left command with the input of the right command. The grep command returns all lines that match the regex. The cut command splits each line into fields based on a delimiter and extracts a specific field.

NEW QUESTION 151
- (Exam Topic 2)

Developers are writing code and merging it into shared repositories several times a day. where it is tested automatically. Which of the following concepts does this best represent?

A. Functional testing
B. Stored procedures
C. Elasticity
D. Continuous Integration

Answer: D

Explanation:
Continuous Integration is the concept that best represents developers writing code and merging it into shared repositories several times a day, where it is tested automatically. Continuous Integration is a software development practice that involves integrating code changes from multiple developers into a shared repository frequently and running automated tests to ensure quality and functionality. Continuous Integration can help to detect and fix errors early, improve collaboration, reduce rework, and accelerate delivery. References: https://www.comptia.org/blog/what-is-devops https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pd

NEW QUESTION 154
- (Exam Topic 2)
Which of the following processes would most likely help an organization that has conducted an incident response exercise to improve performance and identify challenges?

A. Lessons learned
B. Identification
C. Simulation
D. Containment

Answer: A

Explanation:
Lessons learned is a process that would most likely help an organization that has conducted an incident response exercise to improve performance and identify challenges. Lessons learned is a process that involves reviewing and evaluating the incident response exercise to identify what went well, what went wrong, and what can be improved. Lessons learned can help an organization enhance its incident response capabilities, address any gaps or weaknesses, and update its incident response plan accordingly.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.sans.org/reading-room/whitepapers/incident/incident-handlers-handbook-33901

NEW QUESTION 159
- (Exam Topic 2)
A network engineer receives a call regarding multiple LAN-connected devices that are on the same switch. The devices have suddenly been experiencing speed and latency issues while connecting to network resources. The engineer enters the command show mac address-table and reviews the following output

VLAN	MAC	PORT
1	00-04-18-EB-14-30	Fa0/1
1	88-CD-34-19-E8-98	Fa0/2
1	40-11-08-87-10-13	Fa0/3
1	00-04-18-EB-14-30	Fa0/4
1	88-CD-34-00-15-F3	Fa0/5
1	FA-13-02-04-27-64	Fa0/6

Which of the following best describes the attack that is currently in progress?

A. MAC flooding
B. Evil twin
C. ARP poisoning
D. DHCP spoofing

Answer: C

Explanation:
This is an attempt to redirect traffic to an attacking host by sending an ARP packet that contains the forged address of the next hop router. The attacker tricks the victim into believing that it is the legitimate router by sending a spoofed ARP reply with its own MAC address. This causes the victim to send all its traffic to the attacker instead of the router. The attacker can then intercept, modify, or drop the packets as they please.

NEW QUESTION 160
- (Exam Topic 2)
An organization needs to implement more stringent controls over administrator/root credentials and service accounts. Requirements for the project include:
* Check-in/checkout of credentials
* The ability to use but not know the password
* Automated password changes
* Logging of access to credentials
Which of the following solutions would meet the requirements?

A. OAuth 2.0
B. Secure Enclave
C. A privileged access management system
D. An OpenID Connect authentication system

Answer: C

Explanation:
A privileged access management (PAM) system is a solution that helps protect organizations against cyberthreats by monitoring, detecting, and preventing unauthorized privileged access to critical resources12. A PAM system can meet the requirements of the project by providing features such as:

- Check-in/checkout of credentials: A PAM system can store and manage privileged credentials in a secure vault, and allow authorized users to check out credentials when needed and check them back in when done. This reduces the risk of credential theft, misuse, or sharin2g3.
- The ability to use but not know the password: A PAM system can enable users to access privileged accounts or resources without revealing the actual password, using methods such as password injection, session proxy, or single sign-on23. This prevents users from copying, changing, or sharing password2s.
- Automated password changes: A PAM system can automatically rotate and update passwords for privileged accounts according to predefined policies, such as frequency, complexity, and uniqueness23
. This ensures that passwords are always strong and unpredictable, and reduces the risk of password
reuse or compromise2.
- Logging of access to credentials: A PAM system can record and audit all activities related to privileged access, such as who accessed what credentials, when, why, and what they did with them23. This provides visibility and accountability for privileged access, and enables detection and investigation of anomalies or incidents2.

A PAM system is different from OAuth 2.0, which is an authorization framework that enables third-party applications to obtain limited access to an HTTP service on behalf of a resource owner4. OAuth 2.0 does not provide the same level of control and security over privileged access as a PAM system does.
A PAM system is also different from a secure enclave, which is a hardware-based security feature that creates an isolated execution environment within a processor to protect sensitive data from unauthorized access or modification5. A secure enclave does not provide the same functionality as a PAM system for managing privileged credentials and access.
A PAM system is also different from an OpenID Connect authentication system, which is an identity layer on top of OAuth 2.0 that enables users to verify their identity across multiple websites using a single login6. OpenID Connect does not provide the same scope and granularity as a PAM system for controlling and monitoring privileged access.

NEW QUESTION 161
- (Exam Topic 2)
A security administrator suspects there may be unnecessary services running on a server. Which of the following tools will the administrator most likely use to confirm the suspicions?

A. Nmap
B. Wireshark
C. Autopsy
D. DNSEnum

Answer: A

Explanation:
Nmap is a tool that is used to scan IP addresses and ports in a network and to detect installed applications. Nmap can help a security administrator determine the services running on a server by sending various packets to the target and analyzing the responses. Nmap can also perform various tasks such as OS detection, version detection, script scanning, firewall evasion, and vulnerability scanning.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://nmap.org/

NEW QUESTION 166
- (Exam Topic 2)
A company is adopting a BYOD policy and is looking for a comprehensive solution to protect company information on user devices. Which of the following solutions would best support the policy?

A. Mobile device management
B. Full device encryption
C. Remote wipe
D. Biometrics

Answer: A

Explanation:
Mobile device management (MDM) is a solution that allows an organization to manage, monitor, and secure mobile devices that are used by employees for work purposes. It can protect company information on user devices by enforcing policies and controls such as encryption, password, remote wipe, etc., and detecting and preventing unauthorized access or data leakage.

NEW QUESTION 168
- (Exam Topic 2)
A security engineer learns that a non-critical application was compromised. The most recent version of the application includes a malicious reverse proxy while the application is running. Which of the following should the engineer is to quickly contain the incident with the least amount of impact?

A. Configure firewall rules to block malicious inbound access.
B. Manually uninstall the update that contains the backdoor.
C. Add the application hash to the organization's blocklist.
D. Tum off all computers that have the application installed.

Answer: C

Explanation:
A reverse proxy backdoor is a malicious reverse proxy that can intercept and manipulate the traffic between the client and the web server3. This can allow an attacker to access sensitive data or execute commands on the web server.
One possible way to quickly contain the incident with the least amount of impact is to add the application hash to the organization’s blocklist. A blocklist is a list of applications or files that are not allowed to run on a system or network. By adding the application hash to the blocklist, the security engineer can prevent the malicious application from running and communicating with the reverse proxy backdoor.

NEW QUESTION 170
- (Exam Topic 2)
The findings in a consultant's report indicate the most critical risk to the security posture from an incident response perspective is a lack of workstation and server investigation capabilities. Which of the following should be implemented to remediate this risk?

A. HIDS
B. FDE
C. NGFW
D. EDR

Answer: D

Explanation:
EDR solutions are designed to detect and respond to malicious activity on workstations and servers, and they provide a detailed analysis of the incident, allowing organizations to quickly remediate the threat. According to the CompTIA Security+ SY0-601 Official Text Book, EDR solutions can be used to detect malicious activity on endpoints, investigate the incident, and contain the threat. EDR solutions can also provide real-time monitoring and alerting for potential security events, as well as detailed forensic analysis for security incidents. Additionally, the text book recommends that organizations also implement a host-based intrusion detection system (HIDS) to alert them to malicious activity on their workstations and servers.

NEW QUESTION 174
- (Exam Topic 2)
An engineer wants to inspect traffic to a cluster of web servers in a cloud environment Which of the following solutions should the engineer implement? (Select two).

A. CASB
B. WAF
C. Load balancer
D. VPN
E. TLS
F. DAST

Answer: BC

Explanation:
A web application firewall (WAF) is a solution that inspects traffic to a cluster of web servers in a cloud environment and protects them from common web-based attacks, such as SQL injection, cross-site scripting, and denial-of-service1. A WAF can be deployed as a cloud service or as a virtual appliance in front of the web servers. A load balancer is a solution that distributes traffic among multiple web servers in a cloud environment and improves their performance, availability, and scalability2. A load balancer can also perform health checks on the web servers and route traffic only to the healthy ones. The other options are not relevant to this scenario. A CASB is a cloud access security broker, which is a solution that monitors and controls the use of cloud services by an organization’s users3. A VPN is a virtual private network, which is a solution that creates a secure and encrypted connection between two networks or devices over the internet. TLS is Transport Layer Security, which is a protocol that provides encryption and authentication for data transmitted over a network. DAST is dynamic application security testing, which is a method of testing web applications for vulnerabilities by simulating attacks on them.
References: 1: https://www.imperva.com/learn/application-security/what-is-a-web-application-firewall-waf/ 2: https://www.imperva.com/learn/application-security/load-balancing/ 3: https://www.imperva.com/learn/application-security/cloud-access-security-broker-casb/ : https://www.imperva.com/learn/application-security/vpn-virtual-private-network/ : https://www.imperva.com/learn/application-security/transport-layer-security-tls/ : https://www.imperva.com/learn/application-security/dynamic-application-security-testing-dast/ : https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-best-practices/plan-for-traffic-ins
: https://docs.microsoft.com/en-us/azure/private-link/inspect-traffic-with-azure-firewall : https://docs.microsoft.com/en-us/azure/architecture/example-scenario/gateway/application-gateway-before-azur

NEW QUESTION 176
- (Exam Topic 2)
Which of the following best describes the situation where a successfully onboarded employee who is using a fingerprint reader is denied access at the company's mam gate?

A. Crossover error rate
B. False match raw
C. False rejection
D. False positive

Answer: C

Explanation:
False rejection Short
A false rejection occurs when a biometric system fails to recognize an authorized user and denies access. This can happen due to poor quality of the biometric sample, environmental factors, or system errors. References: https://www.comptia.org/blog/what-is-biometrics

NEW QUESTION 177
- (Exam Topic 2)
Which of the following security design features can an development team to analyze the deletion eoting Of data sets the copy?

A. Stored procedures
B. Code reuse
C. Version control
D. Continunus

Answer: C

Explanation:
Version control is a solution that can help a development team to analyze the deletion or editing of data sets without affecting the original copy. Version control is a

system that records changes to a file or set of files over time so that specific versions can be recalled later. Version control can help developers track and manage changes to code, data, or documents, as well as collaborate with other developers and resolve conflicts.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.atlassian.com/git/tutorials/what-is-version-control

NEW QUESTION 181
- (Exam Topic 2)
Which of the following can be used by an authentication application to validate a user's credentials without the need to store the actual sensitive data?

A. Salt string
B. Private Key
C. Password hash
D. Cipher stream

Answer: C

Explanation:
Password hash is a method of storing a user's credentials without the need to store the actual sensitive data. A password hash is a one-way function that transforms the user's password into a fixed-length string of characters that cannot be reversed. The authentication application can then compare the password hash with the stored hash to validate the user's credentials without revealing the original password. References: 1
CompTIA Security+ Certification Exam Objectives, page 15, Domain 3.0: Implementation, Objective 3.5:
Implement secure authentication mechanisms 2
CompTIA Security+ Certification Exam Objectives, page 16,
Domain 3.0: Implementation, Objective 3.6: Implement identity and account management best practices 3
https://www.comptia.org/blog/what-is-password-hashing

NEW QUESTION 185
- (Exam Topic 2)
Law enforcement officials sent a company a notification that states electronically stored information and paper documents cannot be destroyed. Which of the following explains this process?

A. Data breach notification
B. Accountability
C. Legal hold
D. Chain of custody

Answer: C

Explanation:
A legal hold is a process that requires an organization to preserve electronically stored information and paper documents that are relevant to a pending or anticipated litigation or investigation. It suspends the normal retention and destruction policies and procedures for such information and documents until the legal hold is lifted or released.

NEW QUESTION 190
- (Exam Topic 2)
A security analyst was asked to evaluate a potential attack that occurred on a publicly accessible section of the company's website. The malicious actor posted an entry in an attempt to trick users into clicking the following:

```
https://www.c0mpt1a.com/contact-us/%3Fname%3D%3Cscript%3Ealert(document.cookie)%3C%2Fscript%3E
```

Which of the following was most likely observed?

A. DLL injection
B. Session replay
C. SQLi
D. xss

Answer: D

Explanation:
Cross-site scripting is a type of web application attack that involves injecting malicious code or scripts into a trusted website or application. The malicious code or script can execute in the browser of the victim who visits the website or application, and can perform actions such as stealing cookies, redirecting to malicious sites, displaying fake content, or compromising the system. References:
https://www.comptia.org/blog/what-is-cross-site-scripting
https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pd

NEW QUESTION 192
- (Exam Topic 2)
Which of the following automation use cases would best enhance the security posture Of an organi-zation by rapidly updating permissions when employees leave a company Or change job roles inter-nally?

A. Provisioning resources
B. Disabling access
C. APIs
D. Escalating permission requests

Answer: B

Explanation:

Disabling access is an automation use case that can enhance the security posture of an organization by rapidly updating permissions when employees leave a company or change job roles internally. It can prevent unauthorized access and data leakage by revoking or modifying the access rights of employees based on their current status and role.

NEW QUESTION 195
- (Exam Topic 2)
An audit report indicates multiple suspicious attempts to access company resources were made. These attempts were not detected by the company. Which of the following would be the best solution to implement on the company's network?

A. Intrusion prevention system
B. Proxy server
C. Jump server
D. Security zones

Answer: A

Explanation:
An intrusion prevention system (IPS) is the best solution to implement on the company's network to detect and prevent suspicious attempts to access company resources. An IPS is a network security technology that continuously monitors network traffic for malicious or anomalous activity and takes automated actions to block or mitigate it. An IPS can also alert the system administrators of any potential threats and provide detailed logs and reports of the incidents. An IPS can help the company to improve its security posture and prevent data breaches, unauthorized access, or denial-of-service attacks. References:
- https://www.paloaltonetworks.com/cyberpedia/what-is-an-intrusion-prevention-system-ips
- https://www.forcepoint.com/cyber-edu/intrusion-prevention-system-ips

NEW QUESTION 198
- (Exam Topic 2)
A security analyst is investigating a report from a penetration test. During the penetration test, consultants were able to download sensitive data from a back-end server. The back-end server was exposing an API that should have only been available from the company's mobile application. After reviewing the back-end server logs, the security analyst finds the following entries:

```
10.35.45.53 - - [22/May/2020:06:57:31 +0100] "GET /api/client_id=1 HTTP/1.1" 403 1705 "http://www.example.com/api/" "PostmanRuntime/7.26.5"
10.35.45.53 - - [22/May/2020:07:00:58 +0100] "GET /api/client_id=2 HTTP/1.1" 403 1705 "http://www.example.com/api/" "PostmanRuntime/7.22.0"
10.32.40.13 - - [22/May/2020:08:08:52 +0100] "GET /api/client_id=1 HTTP/1.1" 302 21703 "http://www.example.com/api/" "CompanyMobileApp/1.1.1"
10.32.40.25 - - [22/May/2020:08:13:52 +0100] "GET /api/client_id=1 HTTP/1.1" 200 21703 "http://www.example.com/api/" "CompanyMobileApp/2.3.1"
10.35.45.53 - - [22/May/2020:08:20:18 +0100] "GET /api/client_id=2 HTTP/1.1" 200 22405 "http://www.example.com/api/" "CompanyMobileApp/2.3.0"
```

Which of the following is the most likely cause of the security control bypass?

A. IP address allow list
B. User-agent spoofing
C. WAF bypass
D. Referrer manipulation

Answer: B

Explanation:
User-agent spoofing is a technique that involves changing the user-agent string of a web browser or other client to impersonate another browser or device. The user-agent string is a piece of information that identifies the client to the web server and can contain details such as the browser name, version, operating system, and device type. User-agent spoofing can be used to bypass security controls that rely on the user-agent string to determine the legitimacy of a request. In this scenario, the consultants were able to spoof the user-agent string of the company's mobile application and access the API that should have been restricted to it.

NEW QUESTION 199
- (Exam Topic 2)
An organization with a low tolerance for user inconvenience wants to protect laptop hard drives against loss or data theft. Which of the following would be the most acceptable?

A. SED
B. HSM
C. DLP
D. TPM

Answer: A

Explanation:
SED stands for Self-Encrypting Drive, which is a type of hard drive that automatically encrypts and decrypts data using a built-in hardware encryption engine1. SEDs do not require any additional software or configuration, and they do not affect the performance or usability of the laptop2. SEDs also have a feature called Instant Secure Erase, which allows the user to quickly and securely wipe the data on the drive by deleting the encryption key1.

NEW QUESTION 203
- (Exam Topic 2)
A security administrator is managing administrative access to sensitive systems with the following requirements:
• Common login accounts must not be used for administrative duties.
• Administrative accounts must be temporal in nature.
• Each administrative account must be assigned to one specific user.
• Accounts must have complex passwords.
" Audit trails and logging must be enabled on all systems.
Which of the following solutions should the administrator deploy to meet these requirements? (Give explanation and References from CompTIA Security+ SY0-601 Official Text Book and Resources)

A. ABAC
B. SAML
C. PAM
D. CASB

Answer: C

Explanation:
PAM is a solution that enables organizations to securely manage users' accounts and access to sensitive systems. It allows administrators to create unique and complex passwords for each user, as well as assign each account to a single user for administrative duties. PAM also provides audit trails and logging capabilities, allowing administrators to monitor user activity and ensure that all systems are secure. According to the CompTIA Security+ SY0-601 Course Book, “PAM is the most comprehensive way to control and monitor privileged accounts”.

NEW QUESTION 206
- (Exam Topic 2)
A security administrator is compiling information from all devices on the local network in order to gain better visibility into user activities. Which of the following is the best solution to meet this objective?

A. SIEM
B. HIDS
C. CASB
D. EDR

Answer: A

Explanation:
SIEM stands for Security Information and Event Management, which is a solution that can collect, correlate, and analyze security logs and events from various devices on a network. SIEM can provide better visibility into user activities by generating reports, alerts, dashboards, and metrics. SIEM can also help detect and respond to security incidents, comply with regulations, and improve security posture.

NEW QUESTION 208
- (Exam Topic 2)
Which of the following would most likely include language prohibiting end users from accessing personal email from a company device?

A. SLA
B. BPA
C. NDA
D. AUP

Answer: D

Explanation:
AUP or Acceptable Use Policy is a document that defines the rules and guidelines for using a company’s IT resources, such as devices, networks, internet, email, etc. It usually includes language prohibiting end users from accessing personal email from a company device, as well as other activities that may compromise security or productivity1.
https://www.thesecuritybuddy.com/governance-risk-and-compliance/what-are-sla-mou-bpa-and-nda/ 3:
https://www.professormesser.com/security-plus/sy0-501/agreement-types/ 1: https://www.techopedia.com/definition/2471/acceptable-use-policy-aup

NEW QUESTION 211
- (Exam Topic 2)
An employee's laptop was stolen last month. This morning, the was returned by the A cyberrsecurity analyst retrieved laptop and has since cybersecurity incident checklist Four incident handlers are responsible for executing the checklist. Which of the following best describes the process for evidence collection assurance?

A. Time stamp
B. Chain of custody
C. Admissibility
D. Legal hold

Answer: B

Explanation:
Chain of custody is a process that documents the chronological and logical sequence of custody, control, transfer, analysis, and disposition of materials, including physical or electronic evidence. Chain of custody is important to ensure the integrity and admissibility of evidence in legal proceedings. Chain of custody can help evidence collection assurance by providing proof that the evidence has been handled properly and has not been tampered with or contaminated.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.thoughtco.com/chain-of-custody-4589132

NEW QUESTION 213
- (Exam Topic 2)
An organization wants to ensure that proprietary information is not inadvertently exposed during facility tours. Which of the following would the organization implement to mitigate this risk?

A. Clean desk policy
B. Background checks
C. Non-disclosure agreements
D. Social media analysis

Answer: A

Explanation:
A clean desk policy is a set of rules that require employees to clear their desks of any documents, papers, or devices that contain sensitive or confidential information when they leave their workstations. This policy helps to prevent unauthorized access, theft, or disclosure of proprietary information during facility tours or other situations where outsiders may visit the premises.
* A. Clean desk policy. This is the correct answer, because a clean desk policy is a simple and effective way to mitigate the risk of exposing proprietary information during facility tours.

NEW QUESTION 215
- (Exam Topic 2)
A customer called a company's security team to report that all invoices the customer has received over the last five days from the company appear to have fraudulent banking details. An investigation into the matter reveals the following
• The manager of the accounts payable department is using the same password across multiple external websites and the corporate account
• One of the websites the manager used recently experienced a data breach.
• The manager's corporate email account was successfully accessed in the last five days by an IP address located in a foreign country.
Which of the following attacks has most likely been used to compromise the manager's corporate account?

A. Remote access Trojan
B. Brute-force
C. Dictionary
D. Credential stuffing
E. Password spraying

Answer: D

Explanation:
Credential stuffing is a type of attack that involves using stolen or leaked usernames and passwords from one website or service to gain unauthorized access to other websites or services that use the same credentials. It can exploit the common practice of reusing passwords across multiple accounts. It is the most likely attack tha has been used to compromise the manager’s corporate account, given that the manager is using the same password across multiple external websites and the corporate account, and one of the websites recently experienced a data breach.

NEW QUESTION 220
- (Exam Topic 2)
A company has numerous employees who store PHI data locally on devices. The Chief Information Officer wants to implement a solution to reduce external exposure of PHI but not affect the business.
The first step the IT team should perform is to deploy a DLP solution:

A. for only data in transit.
B. for only data at reset.
C. in blocking mode.
D. in monitoring mode.

Answer: D

Explanation:
A DLP solution in monitoring mode is a good first step to deploy for data loss prevention. It allows the IT team to observe and analyze the data flows and activities without blocking or interfering with them. It helps to identify the sources and destinations of sensitive data, the types and volumes of data involved, and the potential risks and violations. It also helps to fine-tune the DLP policies and rules before switching to blocking mode, which can disrupt business operations if not configured properly.

NEW QUESTION 224
- (Exam Topic 2)
Which of the following has been implemented when a host-based firewall on a legacy Linux system allows connections from only specific internal IP addresses?

A. Compensating control
B. Network segmentation
C. Transfer of risk
D. SNMP traps

Answer: A

Explanation:
A compensating control is a type of security control that is implemented in lieu of a recommended security measure that is deemed too difficult or impractical to implement at the present time. A compensating control must provide equivalent or comparable protection for the system or network and meet the intent and rigor of the original security requirement. An example of a compensating control is using a host-based firewall on a legacy Linux system to allow connections from only specific internal IP addresses, as it can provide a similar level of defense as a network firewall that may not be compatible with the system. References:
- https://www.techtarget.com/whatis/definition/compensating-control
- https://reciprocity.com/resources/whats-the-difference-between-compensating-controls-and-mitigating-co

NEW QUESTION 228
- (Exam Topic 2)
A backup operator wants to perform a backup to enhance the RTO and RPO in a highly time- and
storage-efficient way that has no impact on production systems. Which of the following backup types should the operator use?

A. Tape
B. Full
C. Image
D. Snapshot

Answer: D

Explanation:
A snapshot backup is a type of backup that captures the state of a system at a point in time. It is highly time- and storage-efficient because it only records the changes made to the system since the last backup. It also has no impact on production systems because it does not require them to be offline or paused during the backup process. References: https://www.comptia.org/blog/what-is-a-snapshot-backup

NEW QUESTION 231
- (Exam Topic 2)
A security analyst needs to implement security features across smartphones. laptops, and tablets. Which of the following would be the most effective across heterogeneous platforms?

A. Enforcing encryption
B. Deploying GPOs
C. Removing administrative permissions
D. Applying MDM software

Answer: D

Explanation:
MDM stands for Mobile Device Management, which is a software solution that can manage and secure smartphones, laptops, tablets and other mobile devices across heterogeneous platforms. MDM can enforce security features such as encryption, password policies, remote wipe, device tracking, app control and more. MDM can also monitor and update the devices remotely and provide reports and alerts on their status. MDM is the most effective solution to implement security features across heterogeneous platforms, as it can provide centralized and consistent management of various types of devices. Verified References:
- Security+ (Plus) Certification | CompTIA IT Certifications
https://www.comptia.org/certifications/security (See Domain 3: Architecture and Design, Objective 3.4: Given a scenario, implement secure systems design.)
- CompTIA Security+ 601 - Infosec
https://www.infosecinstitute.com/wp-content/uploads/2021/03/CompTIA-Security-eBook.pdf (See Security+: 5 in-demand cybersecurity skills, Implementation)
- Certification Security+ | CompTIA https://www.comptia.org/landing/securityplus/index.html (See Exam Objectives)

NEW QUESTION 235
- (Exam Topic 2)
After installing a patch On a security appliance. an organization realized a massive data exfiltration occurred. Which Of the following describes the incident?

A. Supply chain attack
B. Ransomware attack
C. Cryptographic attack
D. Password attack

Answer: A

Explanation:
A supply chain attack is a type of attack that involves compromising a trusted third-party provider or vendor and using their products or services to deliver malware or gain access to the target organization. The attacker can exploit the trust and dependency that the organization has on the provider or vendor and bypass their security controls. In this case, the attacker may have tampered with the patch for the security appliance and used it to exfiltrate data from the organization.

NEW QUESTION 236
- (Exam Topic 2)
Which of the following is used to quantitatively measure the criticality of a vulnerability?

A. CVE
B. CVSS
C. CIA
D. CERT

Answer: B

Explanation:
The correct answer is B. CVSS.
CVSS stands for Common Vulnerability Scoring System. It is a framework that provides a standardized way to measure the criticality of a vulnerability based on various factors, such as the impact, exploitability, and remediation level of the vulnerability. CVSS assigns a numerical score from 0 to 10 to each vulnerability, where 0 means no risk and 10 means the highest risk. CVSS also provides a qualitative rating for each score, such as low, medium, high, or critical. CVSS helps organizations prioritize the remediation of vulnerabilities based on their severity and potential impact12.
CVE stands for Common Vulnerabilities and Exposures. It is a list of publicly known and standardized identifiers for vulnerabilities and exposures in software and hardware systems. CVE provides a brief description of each vulnerability or exposure, but does not assign a score or rating to them. CVE helps organizations communicate and share information about vulnerabilities and exposures in a consistent and reliable way3 .
CIA stands for Confidentiality, Integrity, and Availability. It is a model that defines the three main objectives of information security. Confidentiality means protecting data from unauthorized access or disclosure. Integrity means ensuring data is accurate and consistent and has not been tampered with. Availability means ensuring data is accessible and usable by authorized parties when needed. CIA helps organizations design and implement security controls and policies to protect their data and systems .
CERT stands for Computer Emergency Response Team. It is a group of experts who respond to security incidents and provide guidance and assistance to mitigate and prevent cyberattacks. CERT also conducts research and analysis on cybersecurity trends and issues, and disseminates information and best practices to the public. CERT helps organizations improve their security posture and resilience against cyber threats .
For more information on CVSS and other concepts related to vulnerability assessment and management, you can refer to [this video] or [this guide] from CompTIA Security+.

NEW QUESTION 238
- (Exam Topic 2)

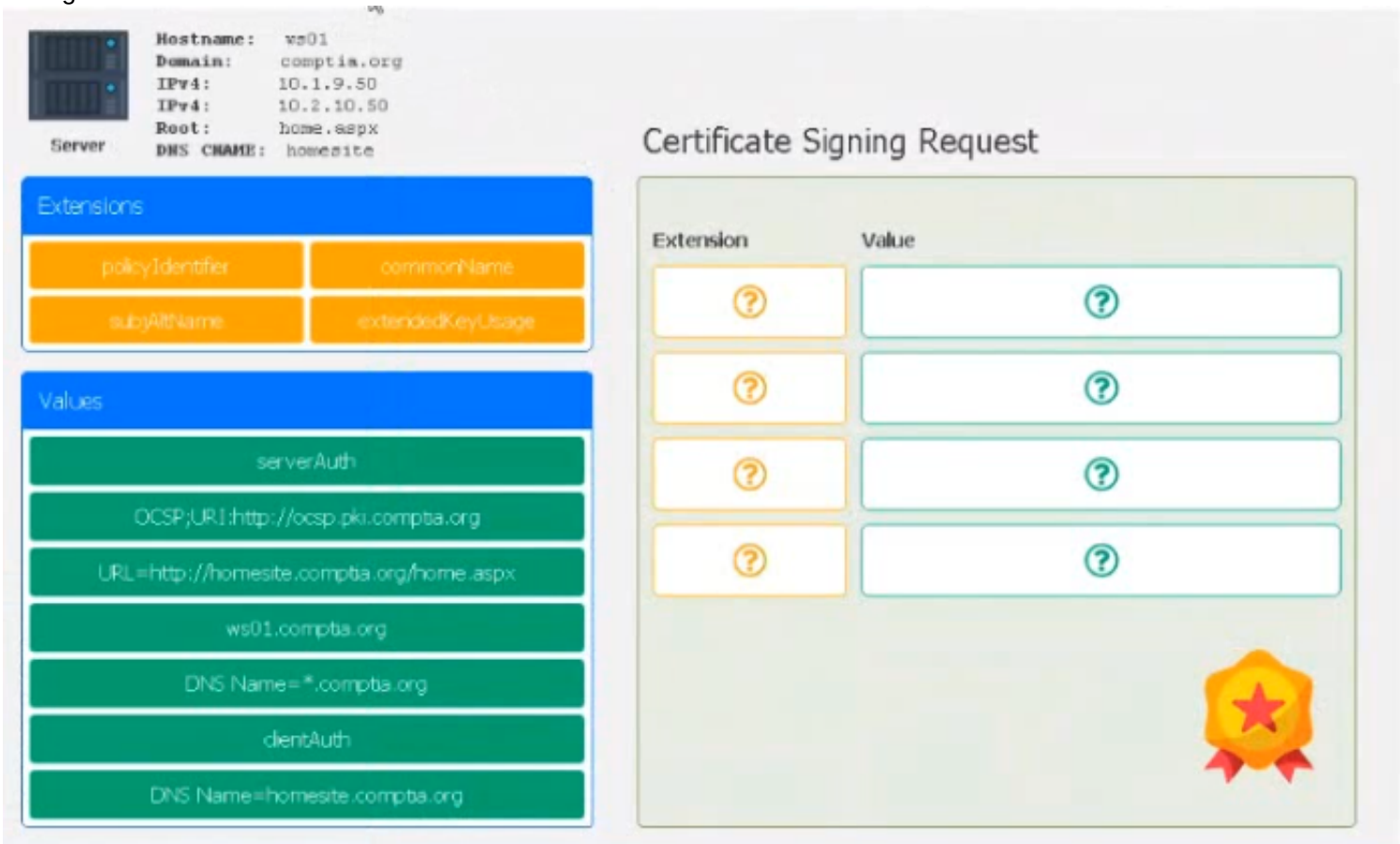
Which Of the following supplies non-repudiation during a forensics investiga-tion?

A. Dumping volatile memory contents first
B. Duplicating a drive With dd
C. a SHA 2 signature of a drive image
D. Logging everyone in contact with evidence
E. Encrypting sensitive data

Answer: C

Explanation:
A SHA 2 signature is a cryptographic hash function that produces a unique and fixed-length output for any given input. It can provide non-repudiation during a forensics investigation by verifying the integrity and authenticity of a drive image and proving that it has not been altered or tampered with since it was created

NEW QUESTION 242
- (Exam Topic 2)
Leveraging the information supplied below, complete the CSR for the server to set up TLS (HTTPS)
• Hostname: ws01
• Domain: comptia.org
• IPv4: 10.1.9.50
• IPV4: 10.2.10.50
• Root: home.aspx
• DNS CNAME:homesite. Instructions:
Drag the various data points to the correct locations within the CSR. Extension criteria belong in the let hand column and values belong in the corresponding row in the right hand column.



A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 243
- (Exam Topic 2)
A company needs to centralize its logs to create a baseline and have visibility on its security events Which of the following technologies will accomplish this objective?

A. Security information and event management
B. A web application firewall
C. A vulnerability scanner
D. A next-generation firewall

Answer: A

Explanation:
Security information and event management (SIEM) is a solution that collects, analyzes, and correlates logs and events from various sources such as firewalls, servers, applications, etc., within an organization’s network. It can centralize logs to create a baseline and have visibility on security events by providing a unified dashboard and reporting system for log management and security monitoring.

NEW QUESTION 247
- (Exam Topic 2)

Which of the following can be used to detect a hacker who is stealing company data over port 80?

A. Web application scan
B. Threat intelligence
C. Log aggregation
D. Packet capture

Answer: D

Explanation:
- Using a SIEM tool to monitor network traffic in real-time and detect any anomalies or malicious activities
- Monitoring all network protocols and ports to detect suspicious volumes of traffic or connections to uncommon IP addresses
- Monitoring for outbound traffic patterns that indicate malware communication with command and control servers, such as beaconing or DNS tunneling
- Using a CASB tool to control access to cloud resources and prevent data leaks or downloads
- Encrypting data at rest and in transit and enforcing strong authentication and authorization policies

NEW QUESTION 252
- (Exam Topic 2)
A security manager is attempting to meet multiple security objectives in the next fiscal year. The security manager has proposed the purchase of the following four items:
Vendor A:
1- Firewall
1-12 switch Vendor B: 1- Firewall
1-12 switch
Which of the following security objectives is the security manager attempting to meet? (Select two).

A. Simplified patch management
B. Scalability
C. Zero-day attack tolerance
D. Multipath
E. Replication
F. Redundancy

Answer: EF

Explanation:
* F. Redundancy is a security objective that aims to ensure availability and resilience of systems and data by having backup or alternative components or resources that can take over in case of a failure. By purchasing two firewalls and two switches from different vendors, the security manager is creating redundancy for the network devices and reducing the single point of failure risk. E. Replication is a security objective that aims to ensure integrity and availability of data by creating copies or duplicates of the data across different locations or devices. By purchasing two firewalls and two switches from different vendors, the security manager is enabling replication of the network traffic and data across different paths and devices. References: 1
CompTIA Security+ Certification Exam Objectives, page 9, Domain 2.0: Architecture and Design, Objective 2.3:
Summarize secure application development, deployment, and automation concepts 2
CompTIA Security+ Certification Exam Objectives, page 11, Domain 2.0: Architecture and Design, Objective 2.5: Explain the importance of physical security controls 3
CompTIA Security+ Certification Exam Objectives, page 13,
Domain 3.0: Implementation, Objective 3.2: Implement secure protocols

NEW QUESTION 253
- (Exam Topic 2)
The new Chief Information Security Officer at a company has asked the security learn to implement stronger user account policies. The new policies require:
• Users to choose a password unique to their last ten passwords
• Users to not log in from certain high-risk countries
Which of the following should the security team implement? (Select two).

A. Password complexity
B. Password history
C. Geolocation
D. Geospatial
E. Geotagging
F. Password reuse

Answer: BC

Explanation:
Password history is a policy that prevents users from reusing their previous passwords. This can reduce the risk of password cracking or compromise. Geolocation is a policy that restricts users from logging in from certain locations based on their IP address. This can prevent unauthorized access from high-risk countries or regions. References: https://www.comptia.org/content/guides/what-is-identity-and-access-management

NEW QUESTION 254
- (Exam Topic 2)
A local server recently crashed, and the team is attempting to restore the server from a backup. During the restore process, the team notices the file size of each daily backup is large and will run out of space at the current rate.
The current solution appears to do a full backup every night. Which of the following would use the least amount of storage space for backups?

A. A weekly, incremental backup with daily differential backups
B. A weekly, full backup with daily snapshot backups
C. A weekly, full backup with daily differential backups
D. A weekly, full backup with daily incremental backups

Answer: D

Explanation:
A weekly, full backup with daily incremental backups would use the least amount of storage space for backups, as it would only store the changes made since the last backup, whether it is a full or incremental backup. Incremental backups are faster and use less storage space than full or differential backups, but they require more time and media to restore data. A full backup is a complete copy of all data, which requires more time and storage space to perform, but allows a faster and easier recovery. A differential backup is a copy of the data that changed since the last full backup, which requires less time and storage space than a full backup, but more than an incremental backup. A differential backup allows a faster recovery than an incremental backup, but slower than a full backup. References:
https://www.nakivo.com/blog/backup-types-explained/

NEW QUESTION 259
- (Exam Topic 2)
A security analyst receives an alert from the company's S1EM that anomalous activity is coming from a local source IP address of 192 168 34.26 The Chief Information Security Officer asks the analyst to block the originating source Several days later another employee opens an internal ticket stating that vulnerability scans are no longer being performed property. The IP address the employee provides is 192 168.34 26. Which of the following describes this type of alert?

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

Answer: C

Explanation:
A false positive is a type of alert that indicates a security incident when there is none. It can be caused by misconfigured or overly sensitive security tools or systems that generate false or irrelevant alerts. In this case, the alert from the company's SIEM that Mimikatz attempted to run on the remote systems was a false positive because it was triggered by a legitimate vulnerability scanning tool that uses Mimikatz as part of its functionality.

NEW QUESTION 263
- (Exam Topic 2)
A large bank with two geographically dispersed data centers Is concerned about major power disruptions at Both locations. Every day each location experiences very brief outages thai last (or a few seconds. However, during the summer a high risk of intentional under-voltage events that could last up to an hour exists, particularly at one of the locations near an industrial smelter. Which of the following is the BEST solution to reduce the risk of data loss?

A. Dual supply
B. Generator
C. PDU
D. Dally backups

Answer: B

Explanation:
A generator will provide uninterrupted power to the data centers, ensuring that they are not affected by any power disruptions, intentional or otherwise. This is more reliable than a dual supply or a PDU, and more effective than daily backups, which would not be able to protect against an outage lasting an hour.

NEW QUESTION 265
- (Exam Topic 2)
While troubleshooting a service disruption on a mission-critical server, a technician discovered the user account that was configured to run automated processes was disabled because the user's password failed to meet password complexity requirements. Which of the following would be the BEST solution to securely prevent future issues?

A. Using an administrator account to run the processes and disabling the account when it is not in use
B. Implementing a shared account the team can use to run automated processes
C. Configuring a service account to run the processes
D. Removing the password complexity requirements for the user account

Answer: C

Explanation:
A service account is a user account that is created specifically to run automated processes and services. These accounts are typically not associated with an individual user, and are used for running background services and scheduled tasks. By configuring a service account to run the automated processes, you can ensure that the account will not be disabled due to password complexity requirements and other user-related issues.
Reference: CompTIA Security+ Study Guide (SY0-601) 7th Edition by Emmett Dulaney, Chuck Easttom

NEW QUESTION 266
- (Exam Topic 2)
A security analyst is currently addressing an active cyber incident. The analyst has been able to identify affected devices that are running a malicious application with a unique hash. Which of the following is the next step according to the incident response process?

A. Recovery
B. Lessons learned
C. Containment
D. Preparation

Answer: C

Explanation:
Containment is the next step according to the incident response process after identifying affected devices that are running a malicious application with a unique

hash. Containment involves isolating the compromised devices or systems from the rest of the network to prevent the spread of the attack and limit its impact. Containment can be done by disconnecting the devices from the network, blocking network traffic to or from them, or applying firewall rules or access control lists. Containment is a critical step in incident response because it helps to preserve evidence for further analysis and remediation, and reduces the risk of data loss or exfiltration
https://www.fortinet.com/resources/cyberglossary/incident-response https://www.ibm.com/topics/incident-response

NEW QUESTION 268
- (Exam Topic 2)
Which of the following should customers who are involved with Ul developer agreements be concerned with when considering the use of these products on highly sensitive projects?

A. Weak configurations
B. Integration activities
C. Unsecure user accounts
D. Outsourced code development

Answer: A

Explanation:
Customers who are involved with Ul developer agreements should be concerned with weak configurations when considering the use of these products on highly sensitive projects. Weak configurations can lead to security vulnerabilities, which can be exploited by malicious actors. It is important to ensure that all configurations are secure and up-to-date in order to protect sensitive data. Source: UL

NEW QUESTION 271
- (Exam Topic 2)
A company is developing a new initiative to reduce insider threats. Which of the following should the company focus on to make the greatest impact?

A. Social media analysis
B. Least privilege
C. Nondisclosure agreements
D. Mandatory vacation

Answer: B

Explanation:
Least privilege is a security principle that states that users and processes should only have the minimum level of access and permissions required to perform their tasks. This reduces the risk of insider threats by limiting the potential damage that a malicious or compromised user or process can cause to the system or data. References: https://www.comptia.org/blog/what-is-least-privilege

NEW QUESTION 273
- (Exam Topic 2)
An email security vendor recently added a retroactive alert after discovering a phishing email had already been delivered to an inbox. Which of the following would be the best way for the security administrator to address this type of alert in the future?

A. Utilize a SOAR playbook to remove the phishing message.
B. Manually remove the phishing emails when alerts arrive.
C. Delay all emails until the retroactive alerts are received.
D. Ingest the alerts into a SIEM to correlate with delivered messages.

Answer: A

Explanation:
One possible way to address this type of alert in the future is to use a SOAR (Security Orchestration, Automation, and Response) playbook to automatically remove the phishing message from the inbox3. A SOAR playbook is a set of predefined actions that can be triggered by certain events or conditions. This can help reduce the response time and human error in dealing with phishing alerts.

NEW QUESTION 275
- (Exam Topic 2)
As part of the building process for a web application, the compliance team requires that all PKI certificates are rotated annually and can only contain wildcards at the secondary subdomain level. Which of the following certificate properties will meet these requirements?

A. HTTPS://*.comptia.org, Valid from April 10 00:00:00 2021 - April 8 12:00:00 2022
B. HTTPS://app1.comptia.org, Valid from April 10 00:00:00 2021 - April 8 12:00:00 2022
C. HTTPS://*.app1.comptia.org, Valid from April 10 00:00:00 2021 - April 8 12:00:00 2022
D. HTTPS://".comptia.org, Valid from April 10 00:00:00 2021 - April 8 12:00:00 2023

Answer: C

Explanation:
This certificate property will meet the requirements because it has a wildcard at the secondary subdomain level (.app1.comptia.org), which means it can be used for any subdomain under app1.comptia.org, such as test.app1.comptia.org or dev.app1.comptia.org. It also has a validity period of less than one year, which means it will need to be rotated annually. The other options do not meet the requirements because they either have a wildcard at the primary domain level (.comptia.org), which is not allowed, or they have a validity period of more than one year, which is too long.

NEW QUESTION 276
- (Exam Topic 2)
A new security engineer has started hardening systems. One of the hardening techniques the engineer is using involves disabling remote logins to the NAS. Users are now reporting the inability to use SCP to transfer files to the NAS, even though the data is still viewable from the users' PCs. Which of the following is the

MOST likely cause of this issue?

A. TFTP was disabled on the local hosts
B. SSH was turned off instead of modifying the configuration file
C. Remote login was disabled in the networkd.conf instead of using the sshd.conf.
D. Network services are no longer running on the NA

Answer: B

Explanation:
Disabling remote logins to the NAS likely involved turning off SSH instead of modifying the configuration file. This would prevent users from using SCP to transfer files to the NAS, even though the data is still viewable from the users' PCs. Source: TechTarget

NEW QUESTION 279
- (Exam Topic 2)
A company wants to enable BYOD for checking email and reviewing documents. Many of the documents contain sensitive organizational information. Which of the following should be deployed first before allowing the use of personal devices to access company data?

A. MDM
B. RFID
C. DLR
D. SIEM

Answer: A

Explanation:
MDM stands for Mobile Device Management, which is a solution that can be used to manage and secure personal devices that access company data. MDM can enforce policies and rules, such as password protection, encryption, remote wipe, device lock, application control, and more. MDM can help a company enable BYOD (Bring Your Own Device) while protecting sensitive organizational information.

NEW QUESTION 283
- (Exam Topic 2)
An incident has occurred in the production environment.
Analyze the command outputs and identify the type of compromise.

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Command Output1 = Logic Bomb
A logic bomb is a type of malicious code that executes when certain conditions are met, such as a specific date or time, or a specific user action1. In this case, the logic bomb is a script that runs every minute and checks if there is a user named john in the /etc/password file. If there is, it drops the production database using a MySQL command3. This could cause severe damage to the system and the data.
To prevent logic bombs, you should use antivirus software that can detect and remove malicious code, and also perform regular backups of your data. You should also avoid opening suspicious attachments or links from unknown sources, and use strong passwords for your accounts1.
Command Output2 = backdoorA backdoor is a type of malicious code that allows an attacker to access a system or network remotely, bypassing security measures1. In this case, the backdoor is a script that runs every time the date command is executed and prompts the user to enter their full name. Then, it opens a reverse shell connection using the nc command and downloads a virus file from a malicious website using the wget command2. This could allow the attacker to execute commands on the system and infect it with malware.
To prevent backdoors, you should use antivirus software that can detect and remove malicious code, and also update your system and applications regularly. You should also avoid executing unknown commands or scripts from untrusted sources, and use firewall rules to block unauthorized connections

NEW QUESTION 288
- (Exam Topic 2)
Which of the following types of controls is a turnstile?

A. Physical
B. Detective
C. Corrective
D. Technical

Answer: A

Explanation:
A turnstile is a physical security control that regulates the entry and exit of people into a facility or an area. It can prevent unauthorized access, tailgating, etc., by requiring valid credentials or tokens to pass through

NEW QUESTION 289
- (Exam Topic 2)
Which of the following should a Chief Information Security Officer consider using to take advantage of industry standard guidelines?

A. SSAE SOC 2
B. GDPR
C. PCI DSS
D. NIST CSF

Answer: D

Explanation:
NIST CSF (National Institute of Standards and Technology Cybersecurity Framework) is a set of guidelines and best practices for managing cybersecurity risks. It is based on existing standards, guidelines, and practices that are widely recognized and applicable across different sectors and organizations. It provides a common language and framework for understanding, communicating, and managing cybersecurity risks. References: 1
CompTIA Security+ Certification Exam Objectives, page 7, Domain 1.0: Attacks, Threats, and
Vulnerabilities, Objective 1.4: Explain the techniques used in security assessments 2
CompTIA Security+ Certification Exam Objectives, page 8, Domain 2.0: Architecture and Design, Objective 2.1: Explain the importance of secure staging deployment concepts 3 https://www.nist.gov/cyberframework

NEW QUESTION 290
- (Exam Topic 2)
A company wants to build a new website to sell products online. The website wd I host a storefront application that allow visitors to add products to a shopping cart and pay for products using a credit card. which Of the following protocols •would be most secure to implement?

A. SSL
B. SFTP
C. SNMP
D. TLS

Answer: D

Explanation:
TLS (Transport Layer Security) is a cryptographic protocol that provides secure communication over the internet. It can protect the data transmitted between the website and the visitors from eavesdropping, tampering, etc. It is the most secure protocol to implement for a website that sells products online using a credit card.

NEW QUESTION 291
- (Exam Topic 2)
A security architect is required to deploy to conference rooms some workstations that will allow sensitive data to be displayed on large screens. Due to the nature of the data, it cannot be stored in the conference rooms. The file share is located in a local data center. Which of the following should the security architect recommend to best meet the requirement?

A. Fog computing and KVMs
B. VDI and thin clients
C. Private cloud and DLP

D. Full drive encryption and thick clients

Answer: B

Explanation:
VDI and thin clients are the best solution to deploy to conference rooms for displaying sensitive data on large screens. VDI stands for virtual desktop infrastructure, which is a technology that hosts the desktop operating systems and applications on a central server or cloud and allows users to access them remotely. Thin clients are devices that have minimal hardware and software components and rely on a network connection to the VDI system. By using VDI and thin clients, the security architect can ensure that the sensitive data is not stored in the conference rooms, but rather in a secure data center or cloud. The thin clients can also be easily managed and updated centrally, reducing the maintenance costs and risks. References:
- https://www.acecloudhosting.com/blog/what-is-vdi-thin-client/
- https://www.parallels.com/blogs/ras/vdi-thin-client/

NEW QUESTION 293
- (Exam Topic 2)
A security analyst reviews web server logs and finds the following string
gallerys?file—. ./../../../../. . / . ./etc/passwd
Which of the following attacks was performed against the web server?

A. Directory traversal
B. CSRF
C. Pass the hash
D. SQL injection

Answer: A

Explanation:
Directory traversal is an attack that exploits a vulnerability in a web application or a file system to access files or directories that are outside the intended scope. The attacker can use special characters, such as …/ or …\ , to navigate through the directory structure and access restricted files or directories.

NEW QUESTION 298
- (Exam Topic 2)
Which of the following best describes a tool used by an organization to identi-fy, log, and track any potential risks and corresponding risk information?

A. Quantitative risk assessment
B. Risk register
C. Risk control assessment
D. Risk matrix

Answer: B

Explanation:
A risk register is a tool used by an organization to identify, log, and track any potential risks and corresponding risk information. It helps to document the risks, their likelihood, impact, mitigation strategies, and status. A risk register is an essential part of risk management and can be used for projects or organizations.

NEW QUESTION 300
- (Exam Topic 2)
A global pandemic is forcing a private organization to close some business units and reduce staffing at others. Which of the following would be best to help the organization's executives determine their next course of action?

A. An incident response plan
B. A communication plan
C. A disaster recovery plan
D. A business continuity plan

Answer: D

Explanation:
A business continuity plan (BCP) is a document that outlines how an organization will continue its critical functions during and after a disruptive event, such as a natural disaster, pandemic, cyberattack, or power outage. A BCP typically covers topics such as business impact analysis, risk assessment, recovery strategies, roles and responsibilities, communication plan, testing and training, and maintenance and review. A BCP can help the organization’s executives determine their next course of action by providing them with a clear framework and guidance for managing the crisis and resuming normal operations.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.ready.gov/business-continuity-plan

NEW QUESTION 301
- (Exam Topic 2)
A large retail store's network was breached recently. and this news was made public. The Store did not lose any intellectual property, and no customer information was stolen. Although no fines were incurred as a result, the Store lost revenue after the breach. Which of the following is the most likely reason for this issue?

A. Employee training
B. Leadership changes
C. Reputation
D. Identity theft

Answer: C

Explanation:

Reputation is the perception or opinion that customers, partners, investors, etc., have about a company or its products and services. It can affect the revenue and profitability of a company after a network breach, even if no intellectual property or customer information was stolen, because it can damage the trust and confidence of the stakeholders and reduce their willingness to do business with the company

NEW QUESTION 304
- (Exam Topic 2)
After multiple on-premises security solutions were migrated to the cloud, the incident response time increased The analysts are spending a long time trying to trace information on different cloud consoles and correlating data in different formats. Which of the following can be used to optimize the incident response time?

A. CASB
B. VPC
C. SWG
D. CMS

Answer: D

Explanation:
CMS (Cloud Management System) is a software or platform that allows an organization to manage and monitor multiple cloud services and resources from a single interface or console. It can optimize the incident response time by providing a centralized view and control of the cloud infrastructure and applications, and enabling faster detection, analysis, and remediation of security incidents across different cloud environments.

NEW QUESTION 306
- (Exam Topic 2)
An organization is building a new headquarters and has placed fake cameras around the building in an attempt to discourage potential intruders. Which of the following kinds of controls describes this security method?

A. Detective
B. Deterrent
C. Directive
D. Corrective

Answer: B

Explanation:
A deterrent control is a type of security control that is designed to discourage potential intruders from attempting to access or harm a system or network. A deterrent control relies on the perception or fear of negative consequences rather than the actual enforcement of those consequences. A deterrent control can also be used to influence the behavior of authorized users by reminding them of their obligations and responsibilities. An example of a deterrent control is placing fake cameras around the building, as it can create the illusion of surveillance and deter potential intruders from trying to break in. Other examples of deterrent controls are warning signs, security guards, or audit trails. References:
- https://www.ibm.com/topics/security-controls
- https://www.f5.com/labs/learning-center/what-are-security-controls

NEW QUESTION 310
- (Exam Topic 2)
A software developer used open-source libraries to streamline development. Which of the following is the greatest risk when using this approach?

A. Unsecure root accounts
B. Lack of vendor support
C. Password complexity
D. Default settings

Answer: A

NEW QUESTION 312
- (Exam Topic 2)
Which of the following are common VoIP-associated vulnerabilities? (Select two).

A. SPIM
B. Vishing
C. VLAN hopping
D. Phishing
E. DHCP snooping
F. Tailgating

Answer: AB

Explanation:
SPIM (Spam over Internet Messaging) is a type of VoIP-associated vulnerability that involves sending unsolicited or fraudulent messages over an internet messaging service, such as Skype or WhatsApp. It can trick users into clicking on malicious links, downloading malware, providing personal or financial information, etc., by impersonating a legitimate entity or creating a sense of urgency or curiosity. Vishing (Voice Phishing) is a type of VoIP-associated vulnerability that involves making unsolicited or fraudulent phone calls over an internet telephony service, such as Google Voice or Vonage. It can trick users into disclosing personal or financial information, following malicious instructions, transferring money, etc., by using voice spoofing, caller ID spoofing, or interactive voice response systems.

NEW QUESTION 317
- (Exam Topic 2)
Historically, a company has had issues with users plugging in personally owned removable media devices into corporate computers. As a result, the threat of

malware incidents is almost constant. Which of the following would best help prevent the malware from being installed on the computers?

A. AUP
B. NGFW
C. DLP
D. EDR

Answer: D

Explanation:
EDR stands for Endpoint Detection and Response, which is a technology that monitors, detects, and responds to cyber threats on endpoint devices, such as laptops, desktops, servers, or mobile devices. EDR collects and analyzes data from endpoints to identify suspicious or malicious activities, such as malware installation, file modification, registry changes, network connections, or user actions. EDR also provides tools and capabilities to respond to threats, such as isolating infected devices, blocking malicious processes, removing malware, or restoring files.
Historically, a company has had issues with users plugging in personally owned removable media devices into corporate computers. As a result, the threat of malware incidents is almost constant. EDR would best help prevent the malware from being installed on the computers by detecting the insertion of removable media devices and scanning them for any malicious code or files. EDR would also alert the security team of any potential infection and enable them to take immediate action to contain and remediate the threat.

NEW QUESTION 319
- (Exam Topic 2)
An organization experiences a cybersecurity incident involving a command-and-control server. Which of the following logs should be analyzed to identify the impacted host? (Select two).

A. Application
B. Authentication
C. Error
D. Network
E. Firewall
F. System

Answer: DE

Explanation:
Network and firewall logs should be analyzed to identify the impacted host in a cybersecurity incident involving a command-and-control server. A command-and-control server is a central server that communicates with and controls malware-infected devices or bots. A command-and-control server can send commands to the bots, such as downloading additional malware, stealing data, or launching attacks. Network logs can help to identify any suspicious or anomalous network traffic, such as connections to unknown or malicious domains, high-volume data transfers, or unusual protocols or ports. Firewall logs can help to identify any blocked or allowed traffic based on the firewall rules, such as connections to or from the command-and-control server, or any attempts to bypass the firewall.
References:
https://www.howtogeek.com/726136/what-is-a-command-and-control-server-for-malware/

NEW QUESTION 321
- (Exam Topic 2)
A security team suspects that the cause of recent power consumption overloads is the unauthorized use of empty power outlets in the network rack. Which of the following options will mitigate this issue without compromising the number of outlets available?

A. Adding a new UPS dedicated to the rack
B. Installing a managed PDU
C. Using only a dual power supplies unit
D. Increasing power generator capacity

Answer: B

Explanation:
Installing a managed PDU is the most appropriate option to mitigate the issue without compromising the number of outlets available. A managed Power Distribution Unit (PDU) helps monitor, manage, and control power consumption at the rack level. By installing a managed PDU, the security team will have greater visibility into power usage in the network rack, and they can identify and eliminate unauthorized devices that consume excessive power from empty outlets.
https://www.comptia.org/training/books/security-sy0-601-study-guide

NEW QUESTION 322
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