



CompTIA

Exam Questions SY0-701

CompTIA Security+ Exam

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NEW QUESTION 1

- (Exam Topic 1)

Which of the following environments would MOST likely be used to assess the execution of component parts of a system at both the hardware and software levels and to measure performance characteristics?

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

Answer: A

Explanation:

The test environment is used to assess the execution of component parts of a system at both the hardware and software levels and to measure performance characteristics. References: CompTIA Security+ Study Guide 601, Chapter 2

NEW QUESTION 2

- (Exam Topic 1)

A company wants to modify its current backup strategy to minimize the number of backups that would need to be restored in case of data loss. Which of the following would be the BEST backup strategy

- A. Incremental backups followed by differential backups
- B. Full backups followed by incremental backups
- C. Delta backups followed by differential backups
- D. Incremental backups followed by delta backups
- E. Full backup followed by different backups

Answer: B

Explanation:

The best backup strategy for minimizing the number of backups that need to be restored in case of data loss is full backups followed by incremental backups. This strategy allows for a complete restoration of data by restoring the most recent full backup followed by the most recent incremental backup. Reference: CompTIA Security+ Certification Guide, Third Edition (Exam SY0-601) page 126

NEW QUESTION 3

- (Exam Topic 1)

A network engineer and a security engineer are discussing ways to monitor network operations. Which of the following is the BEST method?

- A. Disable Telnet and force SSH.
- B. Establish a continuous ping.
- C. Utilize an agentless monitor
- D. Enable SNMPv3 With passwords.

Answer: C

Explanation:

An agentless monitor is the best method to monitor network operations because it does not require any software or agents to be installed on the devices being monitored, making it less intrusive and less likely to disrupt network operations. This method can monitor various aspects of network operations, such as traffic, performance, and security.

CompTIA Security+ Study Guide, Sixth Edition (SY0-601), Chapter 4: Attacks, Threats, and Vulnerabilities, Monitoring and Detection Techniques, pg. 167-170.

NEW QUESTION 4

- (Exam Topic 1)

The Chief information Security Officer has directed the security and networking team to retire the use of shared passwords on routers and switches. Which of the following choices BEST meets the requirements?

- A. SAML
- B. TACACS+
- C. Password vaults
- D. OAuth

Answer: B

Explanation:

TACACS+ is a protocol used for remote authentication, authorization, and accounting (AAA) that can be used to replace shared passwords on routers and switches. It provides a more secure method of authentication that allows for centralized management of access control policies. References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 6

NEW QUESTION 5

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 6

- (Exam Topic 1)

A security analyst was deploying a new website and found a connection attempting to authenticate on the site's portal. While Investigating The incident, the analyst identified the following Input in the username field:

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

Which of the following BEST explains this type of attack?

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

Answer: B

Explanation:

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

NEW QUESTION 7

- (Exam Topic 1)

An organization discovered a disgruntled employee exfiltrated a large amount of PII data by uploading files Which of the following controls should the organization consider to mitigate this risk?

- A. EDR
- B. Firewall
- C. HIPS
- D. DLP

Answer: D

Explanation:

DLP stands for data loss prevention, which is a set of tools and processes that aim to prevent unauthorized access, use, or transfer of sensitive data. DLP can help mitigate the risk of data exfiltration by disgruntled employees or external attackers by monitoring and controlling data flows across endpoints, networks, and cloud services. DLP can also detect and block attempts to copy, print, email, upload, or download sensitive data based on predefined policies and rules. References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives> <https://www.forcepoint.com/cyber-edu/data-loss-prevention-dlp>

NEW QUESTION 8

- (Exam Topic 1)

A company acquired several other small companies The company that acquired the others is transitioning network services to the cloud The company wants to make sure that performance and security remain intact Which of the following BEST meets both requirements?

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

Answer: A

Explanation:

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

NEW QUESTION 9

- (Exam Topic 1)

A bad actor tries to persuade someone to provide financial information over the phone in order to gain access to funds. Which of the following types of attacks does this scenario describe?

- A. Vishing
- B. Phishing
- C. Spear phishing
- D. Whaling

Answer: A

Explanation:

Vishing is a social engineering attack that uses phone calls or voicemail messages to trick people into divulging sensitive information, such as financial information or login credentials.

NEW QUESTION 10

- (Exam Topic 1)

An organization's Chief Information Security Officer is creating a position that will be responsible for implementing technical controls to protect data, including ensuring backups are properly maintained. Which of the following roles would MOST likely include these responsibilities?

- A. Data protection officer
- B. Data owner
- C. Backup administrator
- D. Data custodian
- E. Internal auditor

Answer: D**Explanation:**

The responsibilities of ensuring backups are properly maintained and implementing technical controls to protect data are the responsibilities of the data custodian role. References: CompTIA Security+ Study Guide by Emmett Dulaney, Chapter 7: Securing Hosts and Data, Data Custodian

NEW QUESTION 10

- (Exam Topic 1)

Which of the following environments typically hosts the current version configurations and code, compares user-story responses and workflow, and uses a modified version of actual data for testing?

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

Answer: B**Explanation:**

Staging is an environment in the software development lifecycle that is used to test a modified version of the actual data, current version configurations, and code. This environment compares user-story responses and workflow before the software is released to the production environment. References: CompTIA Security+ Study Guide, Sixth Edition, Sybex, pg. 496

NEW QUESTION 11

- (Exam Topic 1)

A security analyst is running a vulnerability scan to check for missing patches during a suspected security incident. During which of the following phases of the response process is this activity MOST likely occurring?

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

Answer: B**Explanation:**

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

NEW QUESTION 14

- (Exam Topic 1)

A systems engineer is building a new system for production. Which of the following is the FINAL step to be performed prior to promoting to production?

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

Answer: C**Explanation:**

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

NEW QUESTION 17

- (Exam Topic 1)

A security engineer is installing a WAF to protect the company's website from malicious web requests over SSL. Which of the following is needed to meet the objective?

- A. A reverse proxy
- B. A decryption certificate
- C. A split-tunnel VPN
- D. Load-balanced servers

Answer: B**Explanation:**

A Web Application Firewall (WAF) is a security solution that protects web applications from various types of attacks such as SQL injection, cross-site scripting (XSS), and others. It is typically deployed in front of web servers to inspect incoming traffic and filter out malicious requests. To protect the company's website from malicious web requests over SSL, a decryption certificate is needed to decrypt the SSL traffic before it reaches the WAF. This allows the WAF to inspect the traffic and filter out malicious requests.

NEW QUESTION 22

- (Exam Topic 1)

After a hardware incident, an unplanned emergency maintenance activity was conducted to rectify the issue. Multiple alerts were generated on the SIEM during this period of time. Which of the following BEST explains what happened?

- A. The unexpected traffic correlated against multiple rules, generating multiple alerts.
- B. Multiple alerts were generated due to an attack occurring at the same time.
- C. An error in the correlation rules triggered multiple alerts.
- D. The SIEM was unable to correlate the rules, triggering the alert

Answer: A

Explanation:

Multiple alerts were generated on the SIEM during the emergency maintenance activity due to unexpected traffic correlated against multiple rules. The SIEM generates alerts when it detects an event that matches a rule in its rulebase. If the event matches multiple rules, the SIEM will generate multiple alerts. Reference: CompTIA Security+ Study Guide, Exam SY0-601, Chapter 3: Architecture and Design

NEW QUESTION 23

- (Exam Topic 1)

A client sent several inquiries to a project manager about the delinquent delivery status of some critical reports. The project manager claimed the reports were previously sent via email, but then quickly generated and backdated the reports before submitting them as plain text within the body of a new email message thread. Which of the following actions MOST likely supports an investigation for fraudulent submission?

- A. Establish chain of custody.
- B. Inspect the file metadata.
- C. Reference the data retention policy.
- D. Review the email event logs

Answer: D

Explanation:

Reviewing the email event logs can support an investigation for fraudulent submission, as these logs can provide details about the history of emails, including the message content, timestamps, and sender/receiver information. Reference: CompTIA Security+ Certification Exam Objectives, Exam SY0-601, 3.2 Given a scenario, implement appropriate data security and privacy controls.

NEW QUESTION 24

- (Exam Topic 1)

Which of the following is a risk that is specifically associated with hosting applications in the public cloud?

- A. Unsecured root accounts
- B. Zero day
- C. Shared tenancy
- D. Insider threat

Answer: C

Explanation:

When hosting applications in the public cloud, there is a risk of shared tenancy, meaning that multiple organizations are sharing the same infrastructure. This can potentially allow one tenant to access another tenant's data, creating a security risk. References: CompTIA Security+ Certification Exam Objectives (SY0-601)

NEW QUESTION 27

- (Exam Topic 1)

When planning to build a virtual environment, an administrator needs to achieve the following,

- Establish policies to limit who can create new VMs
 - Allocate resources according to actual utilization
 - Require justification for requests outside of the standard requirements.
 - Create standardized categories based on size and resource requirements
- Which of the following is the administrator MOST likely trying to do?

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

Answer: D

Explanation:

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

NEW QUESTION 31

- (Exam Topic 1)

A desktop support technician recently installed a new document-scanning software program on a computer. However, when the end user tried to launch the program, it did not respond. Which of the following is MOST likely the cause?

- A. A new firewall rule is needed to access the application.
- B. The system was quarantined for missing software updates.
- C. The software was not added to the application whitelist.
- D. The system was isolated from the network due to infected software

Answer: C

Explanation:

The most likely cause of the document-scanning software program not responding when launched by the end user is that the software was not added to the application whitelist. An application whitelist is a list of approved software applications that are allowed to run on a system. If the software is not on the whitelist, it may be blocked from running by the system's security policies. Adding the software to the whitelist should resolve the issue and allow the program to run.

References: <https://www.techopedia.com/definition/31541/application-whitelisting>

NEW QUESTION 33

- (Exam Topic 1)

Certain users are reporting their accounts are being used to send unauthorized emails and conduct suspicious activities. After further investigation, a security analyst notices the following:

- All users share workstations throughout the day.
- Endpoint protection was disabled on several workstations throughout the network.
- Travel times on logins from the affected users are impossible.
- Sensitive data is being uploaded to external sites.
- All user account passwords were forced to be reset and the issue continued. Which of the following attacks is being used to compromise the user accounts?

- A. Brute-force
- B. Keylogger
- C. Dictionary
- D. Rainbow

Answer: B

Explanation:

The symptoms suggest a keylogger is being used to compromise the user accounts, allowing the attackers to obtain the users' passwords and other sensitive information. References:

➤ [CompTIA Security+ Study Guide Exam SY0-601, Chapter 6](#)

NEW QUESTION 37

- (Exam Topic 1)

A network analyst is investigating compromised corporate information. The analyst leads to a theory that network traffic was intercepted before being transmitted to the internet. The following output was captured on an internal host:

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

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

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

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

Answer: B

Explanation:

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

NEW QUESTION 40

- (Exam Topic 1)

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

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

Which of the following is MOST likely occurring?

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

Answer: C

Explanation:

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

NEW QUESTION 41

- (Exam Topic 1)

Which of the following cryptographic concepts would a security engineer utilize while implementing non-repudiation? (Select TWO)

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

Answer: BC

Explanation:

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

NEW QUESTION 42

- (Exam Topic 1)

A company is implementing a new SIEM to log and send alerts whenever malicious activity is blocked by its antivirus and web content filters. Which of the following is the primary use case for this scenario?

- A. Implementation of preventive controls
- B. Implementation of detective controls
- C. Implementation of deterrent controls
- D. Implementation of corrective controls

Answer: B

Explanation:

A Security Information and Event Management (SIEM) system is a tool that collects and analyzes security-related data from various sources to detect and respond to security incidents. References: CompTIA Security+ Study Guide 601, Chapter 5

NEW QUESTION 44

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 48

- (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 53

- (Exam Topic 1)

A user reports trouble using a corporate laptop. The laptop freezes and responds slowly when writing documents and the mouse pointer occasional disappears. The task list shows the following results

Name	CPU %	Memory	Network %
Calculator	0%	4.1 MB	0 Mbps
Chrome	0.2%	207.1 MB	0.1 Mbps
Explorer	99.7%	2.15 GB	0.1 Mbps
Notepad	0%	3.9 MB	0 Mbps

Which of the following is MOST likely the issue?

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

Answer: C

Explanation:

Spyware is malicious software that can cause a computer to slow down or freeze. It can also cause the mouse pointer to disappear. The task list shows an application named "spyware.exe" running, indicating that spyware is likely the issue. References:

- CompTIA Security+ Certification Exam Objectives 6.0: Given a scenario, analyze indicators of compromise and determine the type of malware.
- CompTIA Security+ Study Guide, Sixth Edition, pages 125-126

NEW QUESTION 58

- (Exam Topic 1)

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

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

Answer: AD

Explanation:

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

References:

- CompTIA Security+ Study Guide Exam SY0-601, Chapter 7

NEW QUESTION 63

- (Exam Topic 1)

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

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

Answer: D

Explanation:

A backup strategy is a plan that defines how to protect data from loss or corruption by creating and storing copies of data on a different medium or location¹. A backup strategy should consider the security and reliability of the backup data and the backup storage²³⁴.

Based on these definitions, the best option that is a cost-effective approach to address the security and reliability concerns regarding the on-site backup strategy would be D. Migrate to a cloud backup solution²⁴. A cloud backup solution can provide several benefits, such as:

- Enhanced physical security of the backup data by storing it in a remote location that is protected by multiple layers of security measures.
- Enhanced durability of the backup data by storing it on highly reliable storage devices that are replicated across multiple availability zones or regions.
- Reduced costs of backup storage by paying only for the amount of data stored and transferred, and by using features such as compression, deduplication, encryption, and lifecycle management.
- Increased flexibility and scalability of backup storage by choosing from various storage classes and tiers that match the performance and availability requirements of the backup data.

NEW QUESTION 66

- (Exam Topic 1)

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

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

Answer: CE

Explanation:

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

NEW QUESTION 71

- (Exam Topic 1)

After a phishing scam for a user's credentials, the red team was able to craft a payload to deploy on a server. The attack allowed the installation of malicious software that initiates a new remote session. Which of the following types of attacks has occurred?

- A. Privilege escalation
- B. Session replay
- C. Application programming interface
- D. Directory traversal

Answer: A

Explanation:

"Privilege escalation is the act of exploiting a bug, design flaw, or configuration oversight in an operating system or software application to gain elevated access to resources that are normally protected from an application or user." In this scenario, the red team was able to install malicious software, which would require elevated privileges to access and install. Therefore, the type of attack that occurred is privilege escalation. References: CompTIA Security+ Study Guide, pages 111-112

NEW QUESTION 74

- (Exam Topic 1)

Which of the following is required in order for an IDS and a WAF to be effective on HTTPS traffic?

- A. Hashing
- B. DNS sinkhole
- C. TLS inspection
- D. Data masking

Answer: C

Explanation:

An IDS (Intrusion Detection System) and a WAF (Web Application Firewall) are both used to monitor and protect web applications from common attacks such as cross-site scripting and SQL injection¹². However, these attacks can also be hidden in encrypted HTTPS traffic, which uses the TLS (Transport Layer Security) protocol to provide cryptography and authentication between two communicating applications³⁴. Therefore, in order for an IDS and a WAF to be effective on HTTPS traffic, they need to be able to decrypt and inspect the data that flows in the TLS tunnel. This is achieved by using a feature called TLS inspection^{34,45}, which creates two dedicated TLS connections: one with the web server and another with the client. The firewall then uses a customer-provided CA (Certificate Authority) certificate to generate an on-the-fly certificate that replaces the web server certificate and shares it with the client. This way, the firewall can see the content of the HTTPS traffic and apply the IDS and WAF rules accordingly³⁴.

NEW QUESTION 78

- (Exam Topic 1)

Which of the following in a forensic investigation should be prioritized based on the order of volatility? (Select TWO).

- A. Page files
- B. Event logs
- C. RAM
- D. Cache
- E. Stored files
- F. HDD

Answer: CD

Explanation:

In a forensic investigation, volatile data should be collected first, based on the order of volatility. RAM and Cache are examples of volatile data. References: CompTIA Security+ Study Guide 601, Chapter 11

NEW QUESTION 83

- (Exam Topic 1)

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

- A. Creating a playbook within the SOAR
- B. Implementing rules in the NGFW
- C. Updating the DLP hash database

D. Publishing a new CRL with revoked certificates

Answer: A

Explanation:

Creating a playbook within the Security Orchestration, Automation and Response (SOAR) tool would allow the security analyst to detect if an event is reoccurring by triggering automated actions based on the previous incident's characteristics. This can help the SOC to respond quickly and effectively to the incident.

References: CompTIA Security+ Study Guide, Exam SY0-601, 4th Edition, Chapter 7: Incident Response, pp. 352-354

NEW QUESTION 87

- (Exam Topic 1)

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

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

Answer: D

Explanation:

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

NEW QUESTION 90

- (Exam Topic 1)

A company would like to set up a secure way to transfer data between users via their mobile phones The company's top priority is utilizing technology that requires users to be in as close proximity as possible to each other. Which of the following connection methods would BEST fulfill this need?

- A. Cellular
- B. NFC
- C. Wi-Fi
- D. Bluetooth

Answer: B

Explanation:

NFC allows two devices to communicate with each other when they are in close proximity to each other, typically within 5 centimetres. This makes it the most secure connection method for the company's data transfer requirements.

NEW QUESTION 95

- (Exam Topic 1)

Which of the following BEST describes a social-engineering attack that relies on an executive at a small business visiting a fake banking website where credit card and account details are harvested?

- A. Whaling
- B. Spam
- C. Invoice scam
- D. Pharming

Answer: A

Explanation:

A social engineering attack that relies on an executive at a small business visiting a fake banking website where credit card and account details are harvested is known as whaling. Whaling is a type of phishing attack that targets high-profile individuals, such as executives, to steal sensitive information or gain access to their accounts.

NEW QUESTION 98

- (Exam Topic 1)

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

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

Answer: C

Explanation:

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

NEW QUESTION 103

- (Exam Topic 1)

A new vulnerability in the SMB protocol on the Windows systems was recently discovered, but no patches are currently available to resolve the issue. The security administrator is concerned if servers in the company's DMZ will be vulnerable to external attack; however, the administrator cannot disable the service on the servers, as SMB is used by a number of internal systems and applications on the LAN. Which of the following TCP ports should be blocked for all external inbound connections to the DMZ as a workaround to protect the servers? (Select TWO).

- A. 135
- B. 139
- C. 143
- D. 161
- E. 443
- F. 445

Answer: BF

Explanation:

To protect the servers in the company's DMZ from external attack due to the new vulnerability in the SMB protocol on the Windows systems, the security administrator should block TCP ports 139 and 445 for all external inbound connections to the DMZ. SMB uses TCP port 139 and 445. Blocking these ports will prevent external attackers from exploiting the vulnerability in SMB protocol on Windows systems. Blocking TCP ports 139 and 445 for all external inbound connections to the DMZ can help protect the servers, as these ports are used by SMB protocol. Port 135 is also associated with SMB, but it is not commonly used. Ports 143 and 161 are associated with other protocols and services. Reference: CompTIA Security+ Certification Exam Objectives, Exam SY0-601, 1.4 Compare and contrast network architecture and technologies.

NEW QUESTION 108

- (Exam Topic 1)

A large enterprise has moved all its data to the cloud behind strong authentication and encryption. A sales director recently had a laptop stolen, and later, enterprise data was found to have been compromised from a local database. Which of the following was the MOST likely cause?

- A. Shadow IT
- B. Credential stuffing
- C. SQL injection
- D. Man in the browser
- E. Bluejacking

Answer: A

Explanation:

The most likely cause of the enterprise data being compromised from a local database is Shadow IT. Shadow IT is the use of unauthorized applications or devices by employees to access company resources. In this case, the sales director's laptop was stolen, and the attacker was able to use it to access the local database, which was not secured properly, allowing unauthorized access to sensitive data. References:

➤ [CompTIA Security+ Certification Exam Objectives - Exam SY0-601](#)

NEW QUESTION 109

- (Exam Topic 1)

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

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

Answer: A

Explanation:

Detailed

Data Loss Prevention (DLP) can help prevent employees from stealing data by monitoring and controlling access to sensitive data. DLP can also detect and block attempts to transfer sensitive data outside of the organization, such as via email, file transfer, or cloud storage.

References: CompTIA Security+ Study Guide: Exam SY0-601, Chapter 10: Managing Identity and Access, p. 465

NEW QUESTION 111

- (Exam Topic 1)

Which of the following must be in place before implementing a BCP?

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

Answer: D

Explanation:

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

NEW QUESTION 116

- (Exam Topic 1)

Which of the following roles would MOST likely have direct access to the senior management team?

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

Answer: C

Explanation:

A data protection officer (DPO) is a role that oversees the data protection strategy and compliance of an organization. A DPO is responsible for ensuring that the organization follows data protection laws and regulations, such as the General Data Protection Regulation (GDPR), and protects the privacy rights of data subjects. A DPO also acts as a liaison between the organization and data protection authorities, as well as data subjects and other stakeholders.

A DPO would most likely have direct access to the senior management team, as they need to report on data protection issues, risks, and incidents, and advise on data protection policies and practices.

The other options are not correct because:

➤ A. Data custodian is a role that implements and maintains the technical controls and procedures for data security and integrity. A data custodian does not have direct access to the senior management team, as they are more involved in operational tasks than strategic decisions.

➤ B. Data owner is a role that determines the classification and usage of data within an organization. A data owner does not have direct access to the senior management team, as they are more involved in business functions than data protection compliance.

➤ D. Data controller is a role that determines the purposes and means of processing personal data within an organization. A data controller does not have direct access to the senior management team, as they are more involved in data processing activities than data protection oversight.

According to CompTIA Security+ SY0-601 Exam Objectives 2.3 Given a scenario, implement secure protocols:

“A data protection officer (DPO) is a role that oversees the data protection strategy and compliance of an organization.”

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

<https://gdpr-info.eu/issues/data-protection-officer/>

NEW QUESTION 118

- (Exam Topic 1)

Employees at a company are receiving unsolicited text messages on their corporate cell phones. The unsolicited text messages contain a password reset Link. Which of the attacks is being used to target the company?

- A. Phishing
- B. Vishing
- C. Smishing
- D. Spam

Answer: C

Explanation:

Smishing is a type of phishing attack which begins with an attacker sending a text message to an individual. The message contains social engineering tactics to convince the person to click on a malicious link or send sensitive information to the attacker. Criminals use smishing attacks for purposes like:

Learn login credentials to accounts via credential phishing Discover private data like social security numbers

Send money to the attacker Install malware on a phone

Establish trust before using other forms of contact like phone calls or emails

Attackers may pose as trusted sources like a government organization, a person you know, or your bank. And messages often come with manufactured urgency and time-sensitive threats. This can make it more difficult for a victim to notice a scam.

Phone numbers are easy to spoof with VoIP texting, where users can create a virtual number to send and receive texts. If a certain phone number is flagged for spam, criminals can simply recycle it and use a new one.

NEW QUESTION 122

- (Exam Topic 1)

A company is concerned about individuals driving a car into the building to gain access. Which of the following security controls would work BEST to prevent this from happening?

- A. Bollard
- B. Camera
- C. Alarms
- D. Signage
- E. Access control vestibule

Answer: A

Explanation:

A bollard would work best to prevent individuals from driving a car into the building. A bollard is a short, vertical post that can be used to block vehicles from entering a designated area. It is specifically designed to stop cars from crashing into buildings or other structures.

NEW QUESTION 124

- (Exam Topic 1)

A security analyst is responding to an alert from the SIEM. The alert states that malware was discovered on a host and was not automatically deleted. Which of the following would be BEST for the analyst to perform?

- A. Add a deny-all rule to that host in the network ACL
- B. Implement a network-wide scan for other instances of the malware.
- C. Quarantine the host from other parts of the network
- D. Revoke the client's network access certificates

Answer: C

Explanation:

When malware is discovered on a host, the best course of action is to quarantine the host from other parts of the network. This prevents the malware from spreading and potentially infecting other hosts. Adding a deny-all rule to the host in the network ACL may prevent legitimate traffic from being processed, implementing a network-wide scan is time-consuming and may not be necessary, and revoking the client's network access certificates is an extreme measure that may not be warranted. References: CompTIA Security+ Study Guide, pages 113-114

NEW QUESTION 125

- (Exam Topic 1)

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

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

Answer: A

Explanation:

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

NEW QUESTION 128

- (Exam Topic 1)

Hackers recently attacked a company's network and obtained several unfavorable pictures from the Chief Executive Officer's workstation. The hackers are threatening to send the images to the press if a ransom is not paid. Which of the following is impacted the MOST?

- A. Identify theft
- B. Data loss
- C. Data exfiltration
- D. Reputation

Answer: D

Explanation:

The best option that describes what is impacted the most by the hackers' attack and threat would be D. Reputation. Reputation is the perception or opinion that others have about a person or an organization. Reputation can affect the trust, credibility, and success of a person or an organization. In this scenario, if the hackers send the unfavorable pictures to the press, it can damage the reputation of the Chief Executive Officer and the company, and cause negative consequences such as loss of customers, partners, investors, or employees.

NEW QUESTION 130

- (Exam Topic 1)

one of the attendees starts to notice delays in the connection. and the HTTPS site requests are reverting to HTTP. Which of the following BEST describes what is happening?

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

Answer: D

Explanation:

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

NEW QUESTION 131

- (Exam Topic 1)

Which of the following authentication methods sends out a unique password to be used within a specific number of seconds?

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

Answer: A

Explanation:

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

NEW QUESTION 135

- (Exam Topic 1)

The compliance team requires an annual recertification of privileged and non-privileged user access. However, multiple users who left the company six months

ago still have access. Which of the following would have prevented this compliance violation?

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

Answer: A

Explanation:

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

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

NEW QUESTION 139

- (Exam Topic 1)

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

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

Answer: D

Explanation:

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

NEW QUESTION 142

- (Exam Topic 1)

As part of a company's ongoing SOC maturation process, the company wants to implement a method to share cyberthreat intelligence data with outside security partners. Which of the following will the company MOST likely implement?

- A. TAXII
- B. TLP
- C. TTP
- D. STIX

Answer: A

Explanation:

Trusted Automated Exchange of Intelligence Information (TAXII) is a standard protocol that enables the sharing of cyber threat intelligence between organizations. It allows organizations to automate the exchange of information in a secure and timely manner. References: CompTIA Security+ Certification Exam Objectives 3.6 Given a scenario, implement secure network architecture concepts. Study Guide: Chapter 4, page 167.

NEW QUESTION 145

- (Exam Topic 1)

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

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

Answer: B

Explanation:

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

NEW QUESTION 148

- (Exam Topic 1)

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

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

Answer: C

Explanation:

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

NEW QUESTION 149

- (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 154

- (Exam Topic 2)

An analyst is working on an email security incident in which the target opened an attachment containing a worm. The analyst wants to Implement mitigation techniques to prevent further spread. Which of the following is the best course of action for the analyst to take?

- A. Apply a DLP solution.
- B. Implement network segmentation.
- C. Utilize email content filtering.
- D. Isolate the infected attachment.

Answer: D

Explanation:

Isolating the infected attachment is the best course of action for the analyst to take to prevent further spread of the worm. A worm is a type of malware that can self-replicate and infect other devices without human interaction. By isolating the infected attachment, the analyst can prevent the worm from spreading to other devices or networks via email, file-sharing, or other means. Isolating the infected attachment can also help the analyst to analyze the worm and determine its source, behavior, and impact. References:

- > <https://www.security.org/antivirus/computer-worm/>
- > https://sec.cloudapps.cisco.com/security/center/resources/worm_mitigation_whitepaper.html

NEW QUESTION 158

- (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 160

- (Exam Topic 2)

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

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

Answer: B

Explanation:

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

NEW QUESTION 165

- (Exam Topic 2)

An attack has occurred against a company.

INSTRUCTIONS

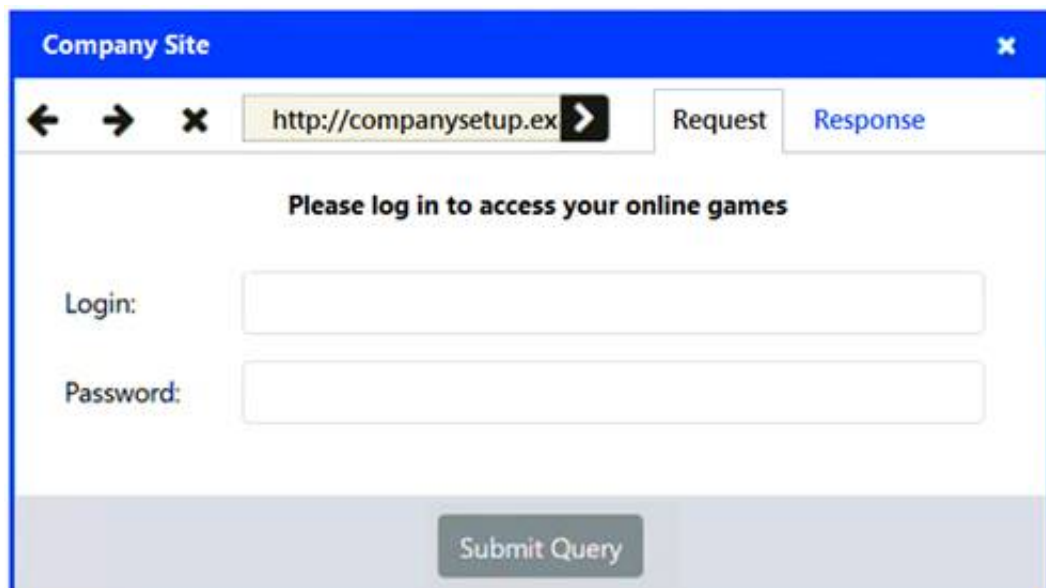
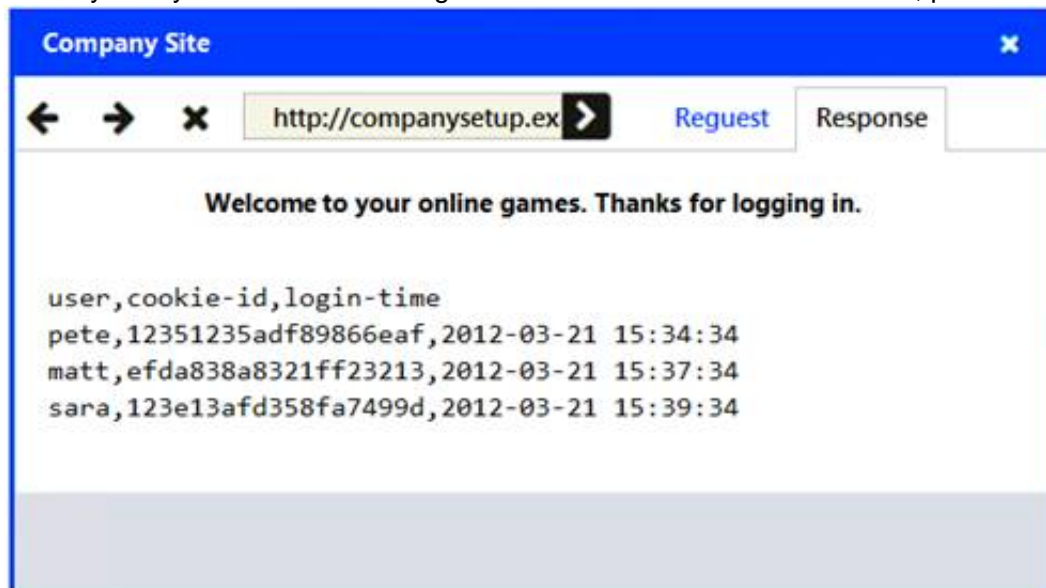
You have been tasked to do the following:

Identify the type of attack that is occurring on the network by clicking on the attacker's tablet and reviewing the output. (Answer Area 1).

Identify which compensating controls should be implemented on the assets, in order to reduce the effectiveness of future attacks by dragging them to the correct server.

(Answer area 2) All objects will be used, but not all placeholders may be filled. Objects may only be used once.

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



Select and Place:

Answer Area 1

SQL Injection

Cross Site Scripting

XML Injection

Session Hijacking

Type of attack

?

Answer Area 2

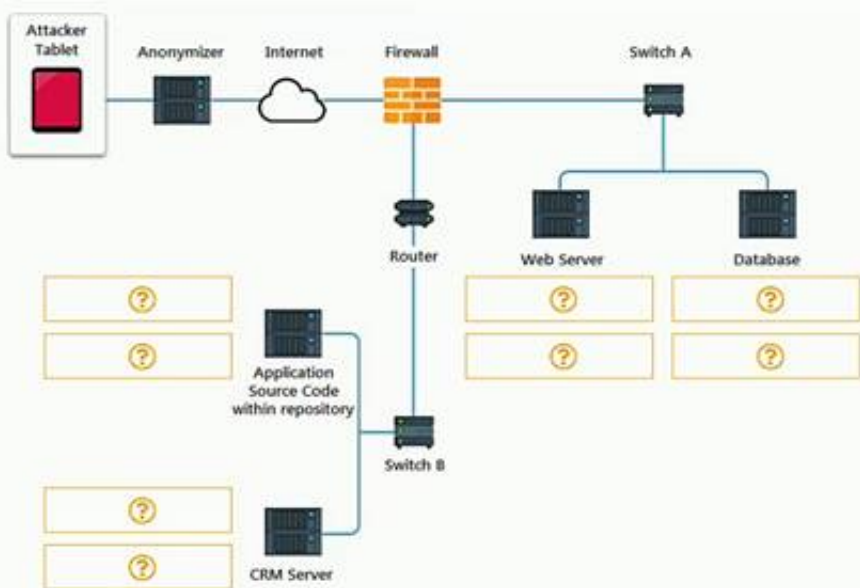
Input Validation

Code Review

WAF

URL Filtering

Record level access control



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A computer screen shot of a computer Description automatically generated with low confidence

NEW QUESTION 168

- (Exam Topic 2)

A network manager is concerned that business may be negatively impacted if the firewall in its data center goes offline. The manager would like to implement a high availability pair to:

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

Answer: B

Explanation:

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

NEW QUESTION 171

- (Exam Topic 2)

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

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

Answer: D

Explanation:

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

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://resources.infosecinstitute.com/topic/incident-response-process/>

NEW QUESTION 173

- (Exam Topic 2)

Recent changes to a company's BYOD policy require all personal mobile devices to use a two-factor authentication method that is not something you know or have. Which of the following will meet this requirement?

- A. Facial recognition
- B. Six-digit PIN
- C. PKI certificate
- D. Smart card

Answer: A

Explanation:

Facial recognition is a type of biometric authentication that uses the unique features of a person's face to verify their identity. Facial recognition is not something you know or have, but something you are, which is one of the three factors of authentication. Facial recognition can use various methods and technologies, such as 2D or 3D images, infrared sensors, machine learning and more, to capture, analyze and compare facial data. Facial recognition can provide a convenient and secure way to authenticate users on personal mobile devices, as it does not require any additional hardware or input from the user. Facial recognition can also be used in conjunction with other factors, such as passwords or tokens, to provide multi-factor authentication. Verified References:

➤ Biometrics - SY0-601 CompTIA Security+ : 2.4 - Professor Messer IT Certification Training Courses <https://www.professormesser.com/security-plus/sy0-601/sy0-601-video/biometrics/> (See Facial Recognition)

➤ Security+ (Plus) Certification | CompTIA IT Certifications <https://www.comptia.org/certifications/security> (See Domain 2: Architecture and Design, Objective 2.4: Given a scenario, implement identity and access management controls.)

➤ Biometric and Facial Recognition - CompTIA Security+ Certification (SY0-501) https://www.oreilly.com/library/view/comptia-security-certification/9781789953091/video9_6.html (See Biometric and Facial Recognition)

NEW QUESTION 177

- (Exam Topic 2)

A security administrator needs to provide secure access to internal networks for external partners The administrator has given the PSK and other parameters to the third-party security administrator. Which of the following is being used to establish this connection?

- A. Kerberos
- B. SSL/TLS
- C. IPSec
- D. SSH

Answer: C

Explanation:

IPSec is a protocol suite that provides secure communication over IP networks. It uses encryption, authentication, and integrity mechanisms to protect data from unauthorized access or modification. IPSec can operate in two modes: transport mode and tunnel mode. In tunnel mode, IPSec can create a virtual private network (VPN) between two endpoints, such as external partners and internal networks. To establish a VPN connection, IPSec requires a pre-shared key (PSK) or other parameters to negotiate the security association. References:
<https://www.comptia.org/content/guides/what-is-vpn>

NEW QUESTION 182

- (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 186

- (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 191

- (Exam Topic 2)

An organization routes all of its traffic through a VPN. Most users are remote and connect into a corporate data center that houses confidential information. There is a firewall at the internet border, followed by a DLP appliance, the VPN server, and the data center itself. Which of the following is the weakest design element?

- A. The DLP appliance should be integrated into a NGFW.
- B. Split-tunnel connections can negatively impact the DLP appliance's performance.
- C. Encrypted VPN traffic will not be inspected when entering or leaving the network.
- D. Adding two hops in the VPN tunnel may slow down remote connections.

Answer: C

Explanation:

VPN (Virtual Private Network) traffic is encrypted to protect its confidentiality and integrity over the internet. However, this also means that it cannot be inspected by security devices or tools when entering or leaving the network, unless it is decrypted first. This can create a blind spot or a vulnerability for the network security posture, as malicious traffic or data could bypass detection or prevention mechanisms by using VPN encryption.

NEW QUESTION 196

- (Exam Topic 2)

A security analyst receives alerts about an internal system sending a large amount of unusual DNS queries to systems on the internet over short periods of time during non-business hours. Which of the following is most likely occurring?

- A. A worm is propagating across the network.
- B. Data is being exfiltrated.
- C. A logic bomb is deleting data.
- D. Ransomware is encrypting files.

Answer: B

Explanation:

Data is being exfiltrated when an internal system is sending a large amount of unusual DNS queries to systems on the internet over short periods of time during non-business hours. Data exfiltration is the unauthorized transfer of data from a system or network to an external destination or actor. Data exfiltration can be performed by malicious insiders or external attackers who have compromised the system or network. DNS queries are requests for resolving domain names to IP addresses. DNS queries can be used as a covert channel for data exfiltration by encoding data in the domain names or subdomains and sending them to a malicious DNS server that can decode and collect the data. References:

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

<https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pdf>

NEW QUESTION 197

- (Exam Topic 2)

A network architect wants a server to have the ability to retain network availability even if one of the network switches it is connected to goes down. Which of the following should the architect implement on the server to achieve this goal?

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

Answer: C

Explanation:

NIC Teaming is a feature that allows a server to be connected to multiple network switches, providing redundancy and increased network availability. If one of the switches goes down, the server will still be able to send and receive data through one of the other switches. To configure NIC Teaming in Windows Server, see Microsoft's documentation:

<https://docs.microsoft.com/en-us/windows-server/networking/technologies/nic-teaming>. For more information on NIC Teaming and other network redundancy features, refer to the CompTIA Security+ SY0-601 Official Text Book and Resources.

NEW QUESTION 202

- (Exam Topic 2)

A security analyst is creating baselines for the server team to follow when hardening new devices for deployment. Which of the following best describes what the analyst is creating?

- A. Change management procedure
- B. Information security policy
- C. Cybersecurity framework
- D. Secure configuration guide

Answer: D

Explanation:

A secure configuration guide is a document that provides an overview of the security features and best practices for a specific product, system, or application. A secure configuration guide helps to reduce unnecessary cyber vulnerabilities and enhance overall security by applying consistent and standardized settings and policies. A security analyst can create baselines for the server team to follow when hardening new devices for deployment based on a secure configuration guide.

* A. Change management procedure. This is not the correct answer, because a change management procedure is a document that describes the steps and processes for implementing, reviewing, and approving changes to an IT system or environment. A change management procedure helps to minimize the risks and impacts of changes on the system performance, availability, and security.

* B. Information security policy. This is not the correct answer, because an information security policy is a document that defines the rules and principles for protecting the confidentiality, integrity, and availability of information assets within an organization. An information security policy helps to establish the roles and responsibilities of employees, managers, and stakeholders regarding information security.

* C. Cybersecurity framework. This is not the correct answer, because a cybersecurity framework is a document that provides a set of standards, guidelines, and best practices for managing cybersecurity risks and improving resilience. A cybersecurity framework helps to align the business objectives and priorities with the security requirements and capabilities.

* D. Secure configuration guide. This is the correct answer, because a secure configuration guide is a document that provides an overview of the security features and best practices for a specific product, system, or application. A secure configuration guide helps to reduce unnecessary cyber vulnerabilities and enhance overall security by applying consistent and standardized settings and policies.

Reference: Secure Configuration Guide, Security Technical Implementation Guide - Wikipedia.

NEW QUESTION 203

- (Exam Topic 2)

A user enters a password to log in to a workstation and is then prompted to enter an authentication code Which of the following MFA factors or attributes are being utilized in the authentication process? {Select two}.

- A. Something you know
- B. Something you have
- C. Somewhere you are
- D. Someone you know
- E. Something you are
- F. Something you can do

Answer: AB

Explanation:

MFA (Multi-Factor Authentication) is a method of verifying a user's identity by requiring two or more factors or attributes that belong to different categories. The categories are something you know (such as a password or a PIN), something you have (such as a token or a smart card), something you are (such as a fingerprint or an iris scan), something you do (such as a gesture or a voice command), and somewhere you are (such as a location or an IP address). In this case, the user enters a password (something you know) and then receives an authentication code (something you have) to log in to a workstation.

NEW QUESTION 205

- (Exam Topic 2)

Select the appropriate attack and remediation from each drop-down list to label the corresponding attack with its remediation.

INSTRUCTIONS

Not all attacks and remediation actions will be used.

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

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

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Web server Botnet Enable DDoS protection User RAT Implement a host-based IPS Database server Worm Change the default application password Executive Keylogger Disable vulnerable services Application Backdoor Implement 2FA using push notification
A screenshot of a computer program Description automatically generated with low confidence

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

NEW QUESTION 209

- (Exam Topic 2)

An IT manager is estimating the mobile device budget for the upcoming year. Over the last five years, the number of devices that were replaced due to loss, damage, or theft steadily increased by 10%. Which of the following would best describe the estimated number of devices to be replaced next year?

- A. SLA
- B. ARO
- C. RPO
- D. SLE

Answer: B

Explanation:

ARO stands for annualized rate of occurrence, which is a metric that estimates how often a threat event will occur within a year. ARO can help an IT manager estimate the mobile device budget for the upcoming year by multiplying the number of devices replaced in the previous year by the percentage increase of replacement over the last five years. For example, if 100 devices were replaced in the previous year and the replacement rate increased by 10% each year for the last five years, then the estimated number of devices to be replaced next year is $100 \times (1 + 0.1)^5 = 161$.

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/24866/annualized-rate-of-occurrence-aro>

NEW QUESTION 210

- (Exam Topic 2)

Which of the following teams combines both offensive and defensive testing techniques to protect an organization's critical systems?

- A. Red
- B. Blue
- C. Purple
- D. Yellow

Answer: C

Explanation:

A purple team combines both offensive and defensive testing techniques to protect an organization's critical systems. A purple team is a type of cybersecurity team that consists of members from both the red team and the blue team. The red team performs simulated attacks on the organization's systems, while the blue team defends against them. The purple team facilitates the collaboration and communication between the red team and the blue team, and provides feedback and recommendations for improvement. A purple team can help the organization identify and remediate vulnerabilities, enhance security controls, and increase resilience.

References: <https://www.comptia.org/blog/red-team-blue-team-purple-team>
<https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pdf>

NEW QUESTION 212

- (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 213

- (Exam Topic 2)

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

- Minimal interruption to the end user
- Mutual certificate validation

Which of the following authentication protocols would meet these requirements?

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

Answer: D

Explanation:

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

NEW QUESTION 218

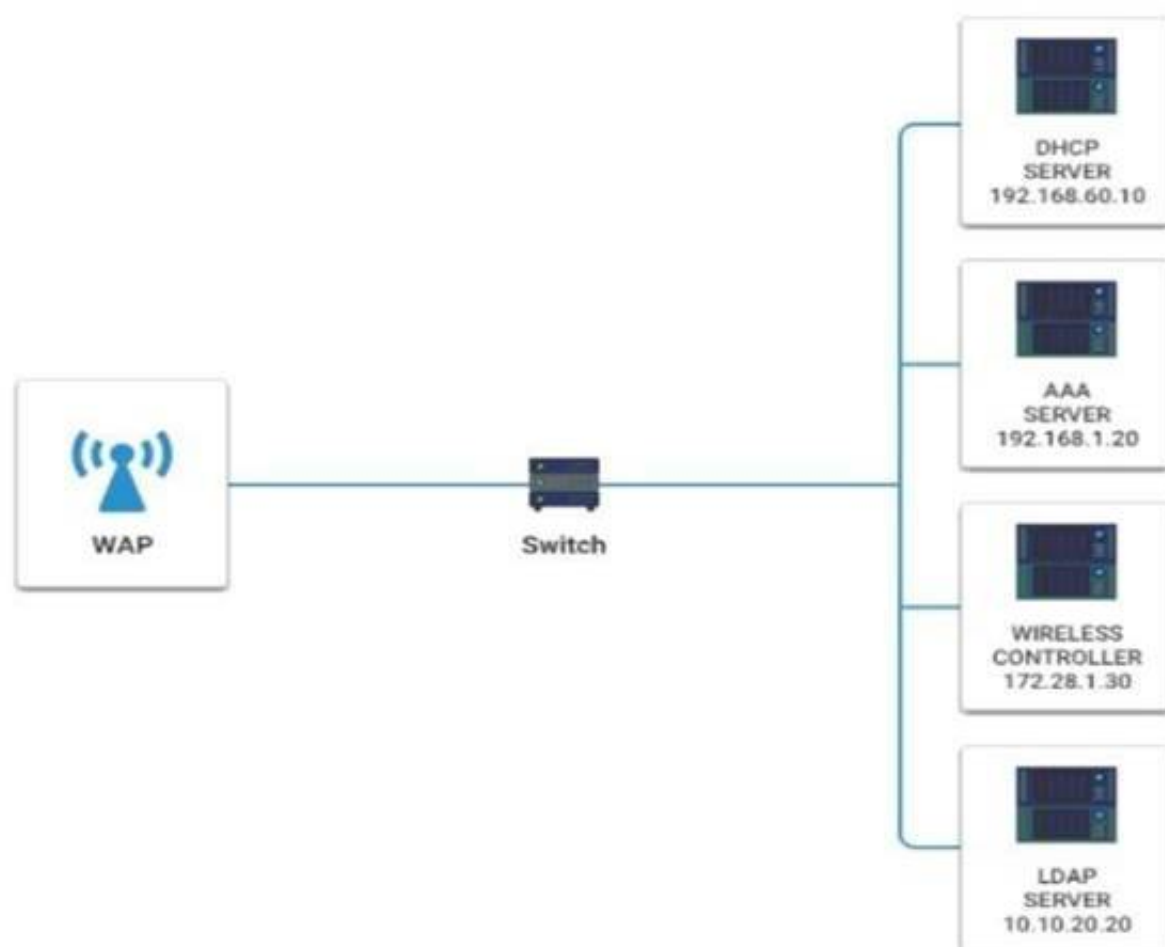
- (Exam Topic 2)

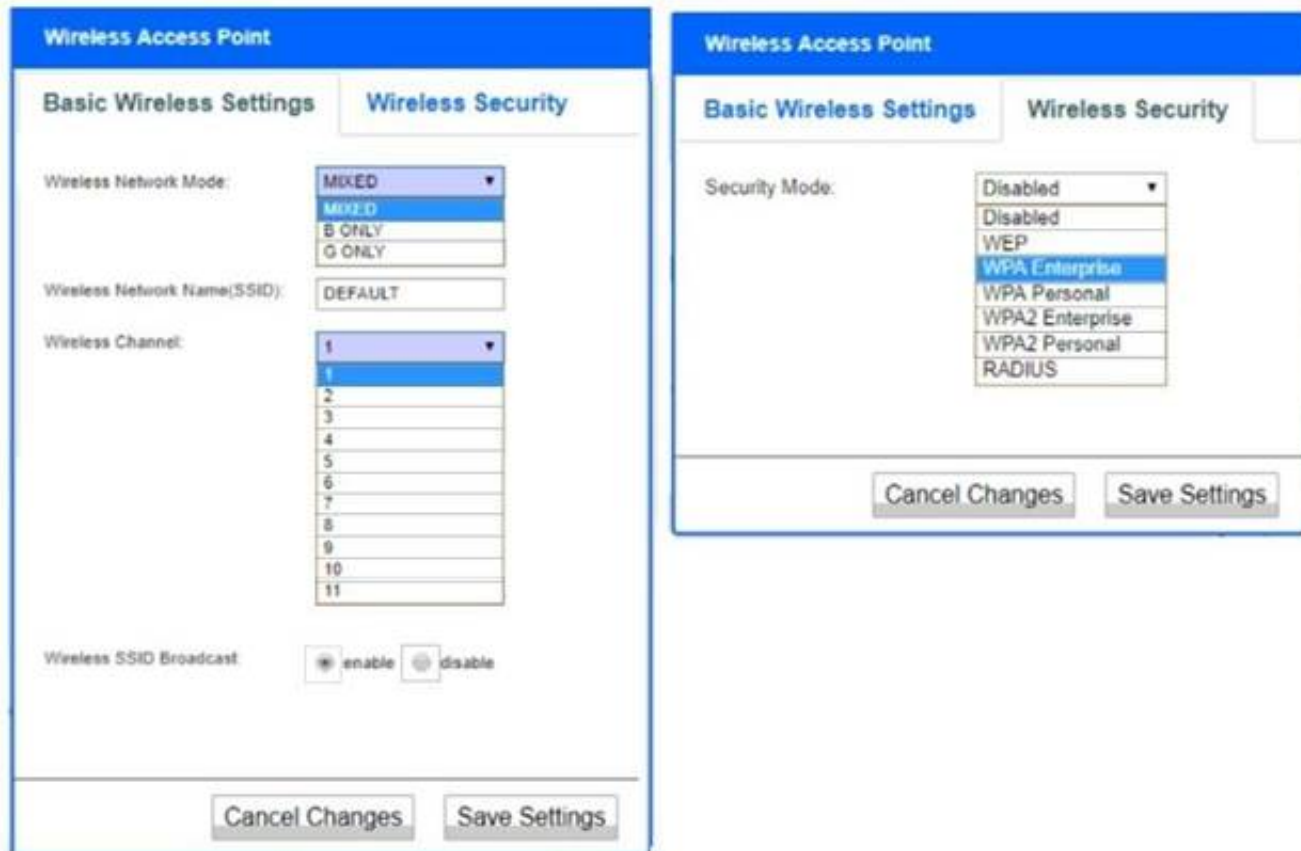
A newly purchased corporate WAP needs to be configured in the MOST secure manner possible. INSTRUCTIONS

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.





- 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 222

- (Exam Topic 2)

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 225

- (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 227

- (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 228

- (Exam Topic 2)

A user's laptop constantly disconnects from the Wi-Fi network. Once the laptop reconnects, the user can reach the internet but cannot access shared folders or other network resources. Which of the following types of attacks is the user MOST likely experiencing?

- A. Bluejacking
- B. Jamming
- C. Rogue access point
- D. Evil twin

Answer: D

Explanation:

An evil twin attack is when an attacker sets up a fake Wi-Fi network that looks like a legitimate network, but is designed to capture user data that is sent over the network. In this case, the user's laptop is constantly disconnecting and reconnecting to the Wi-Fi network, indicating that it is connecting to the fake network instead of the legitimate one. Once the user connects to the fake network, they are unable to access shared folders or other network resources, as those are only available on the legitimate network.

NEW QUESTION 231

- (Exam Topic 2)

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

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

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

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

Answer: C

Explanation:

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

NEW QUESTION 234

- (Exam Topic 2)

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 236

- (Exam Topic 2)

A security architect is designing the new outbound internet for a small company. The company would like all 50 users to share the same single Internet connection. In addition, users will not be permitted to use social media sites or external email services while at work. Which of the following should be included in this design to satisfy these requirements? (Select TWO).

- A. DLP
- B. MAC filtering
- C. NAT
- D. VPN
- E. Content filler
- F. WAF

Answer: CD

Explanation:

NAT (Network Address Translation) is a technology that allows multiple devices to share a single IP address, allowing them to access the internet while still maintaining security and privacy. VPN (Virtual Private Network) is a technology that creates a secure, encrypted tunnel between two or more devices, allowing users to access the internet and other network resources securely and privately. Additionally, VPNs can also be used to restrict access to certain websites and services, such as social media sites and external email services.

NEW QUESTION 237

- (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 239

- (Exam Topic 2)

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 243

- (Exam Topic 2)

Which of the following threat actors is most likely to be motivated by ideology?

- A. Business competitor
- B. Hacktivist
- C. Criminal syndicate
- D. Script kiddie
- E. Disgruntled employee

Answer: B

Explanation:

A hacktivist is a threat actor who is most likely to be motivated by ideology. A hacktivist is a person or group who uses hacking skills and techniques to promote a political or social cause. Hacktivists may target government, corporate, or religious entities that they disagree with or oppose. Hacktivists may use various methods to achieve their goals, such as defacing websites, leaking sensitive data, launching denial-of-service attacks, or spreading propaganda. Hacktivists are not motivated by financial gain or personal benefit, but rather by their beliefs and values. References:

- > <https://www.uscybersecurity.net/hacktivists/>
- > <https://www.fortinet.com/resources/cyberglossary/what-is-hacktivism>

NEW QUESTION 247

- (Exam Topic 2)

Which of the following can be used by an authentication application to validate a user's credentials without the need to store the actual sensitive data?

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

Answer: C

Explanation:

Password hash is a method of storing a user's credentials without the need to store the actual sensitive data. A password hash is a one-way function that transforms the user's password into a fixed-length string of characters that cannot be reversed. The authentication application can then compare the password hash with the stored hash to validate the user's credentials without revealing the original password. References: 1

CompTIA Security+ Certification Exam Objectives, page 15, Domain 3.0: Implementation, Objective 3.5:

Implement secure authentication mechanisms 2

CompTIA Security+ Certification Exam Objectives, page 16,

Domain 3.0: Implementation, Objective 3.6: Implement identity and account management best practices 3

<https://www.comptia.org/blog/what-is-password-hashing>

NEW QUESTION 252

- (Exam Topic 2)

A security administrator is evaluating remote access solutions for employees who are geographically dispersed. Which of the following would provide the MOST secure remote access? (Select TWO).

- A. IPSec
- B. SFTP
- C. SRTP
- D. LDAPS
- E. S/MIME
- F. SSL VPN

Answer: AF

Explanation:

IPSec (Internet Protocol Security) is a technology that provides secure communication over the internet by encrypting traffic and authenticating it at both the sender and receiver. It can be used to create secure tunnels between two or more devices, allowing users to access resources securely and privately.

SSL VPN (Secure Sockets Layer Virtual Private Network) is a type of VPN that uses an SSL/TLS connection to encrypt traffic between two or more devices. It is a secure and reliable solution for providing remote access, as all traffic is encrypted and authenticated. Additionally, SSL VPNs can also be used to restrict access to certain websites and services, making them a secure and robust solution for remote access.

NEW QUESTION 256

- (Exam Topic 2)

A security engineer needs to recommend a solution to defend against malicious actors misusing protocols and being allowed through network defenses. Which of the following will the engineer most likely recommend?

- A. A content filter
- B. A WAF
- C. A next-generation firewall
- D. An IDS

Answer: C

Explanation:

A next-generation firewall (NGFW) is a solution that can defend against malicious actors misusing protocols and being allowed through network defenses. A NGFW is a type of firewall that can perform deep packet inspection, application-level filtering, intrusion prevention, malware detection, and identity-based access control. A NGFW can also use threat intelligence and behavioral analysis to identify and block malicious traffic based on protocols, signatures, or anomalies.

References:

<https://www.comptia.org/blog/what-is-a-next-generation-firewall>

<https://www.certblaster.com/wp-content/uploads/2020/11/CompTIA-Security-SY0-601-Exam-Objectives-1.0.pdf>

NEW QUESTION 261

- (Exam Topic 2)

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

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

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

Answer: C

Explanation:

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

NEW QUESTION 264

- (Exam Topic 2)

A security analyst is reviewing packet capture data from a compromised host. In the packet capture, the analyst locates packets that contain large amounts of text. Which of the following is most likely installed on the compromised host?

- A. Keylogger
- B. Spyware
- C. Torjan
- D. Ransomware

Answer: A

Explanation:

A keylogger is a type of malware that records the keystrokes of the user and sends them to a remote attacker. The attacker can use the keystrokes to steal the user's credentials, personal information, or other sensitive data. A keylogger can generate packets that contain large amounts of text, as the packet capture data shows.

NEW QUESTION 268

- (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. OpenID
- 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 273

- (Exam Topic 2)

An organization with a low tolerance for user inconvenience wants to protect laptop hard drives against loss or data theft. Which of the following would be the most acceptable?

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

Answer: A

Explanation:

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

NEW QUESTION 276

- (Exam Topic 2)

Employees in the research and development business unit receive extensive training to ensure they understand how to best protect company data. Which of the following is the type of data these employees are most likely to use in day-to-day work activities?

- A. Encrypted
- B. Intellectual property
- C. Critical
- D. Data in transit

Answer: B

Explanation:

Intellectual property is a type of data that is proprietary and unique to an organization. It includes trade secrets and other information that the organization does not want to share with third parties or competitors. Employees in the research and development business unit are most likely to use intellectual property in their day-to-day work activities, as they are involved in creating new products, services, or processes for the organization. Intellectual property data requires a high level of security and protection, as it can provide a competitive advantage or disadvantage if leaked or stolen.

Encrypted data is not a type of data, but a state of data. Encryption is a method of transforming data into an unreadable format using a key, so that only authorized parties can access it. Encryption can be applied to any type of data, such as intellectual property, critical data, or data in transit.

Critical data is a type of data that is essential for the operation and continuity of an organization. It includes information such as customer records, financial transactions, employee details, and so on. Critical data may or may not be intellectual property, depending on the nature and source of the data. Critical data also requires a high level of security and protection, as it can affect the reputation, performance, or legal compliance of the organization.

Data in transit is not a type of data, but a state of data. Data in transit refers to data that is moving from one location to another over a network, such as the internet, a LAN, or a WAN. Data in transit can be vulnerable to interception, modification, or theft by malicious actors. Data in transit can also be any type of data, such as intellectual property, critical data, or PII.

NEW QUESTION 277

- (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 279

- (Exam Topic 2)

Which of the following is constantly scanned by internet bots and has the highest risk of attack in the case of the default configurations?

- A. Wearable sensors
- B. Raspberry Pi
- C. Surveillance systems
- D. Real-time operating systems

Answer: C

Explanation:

Surveillance systems are constantly scanned by internet bots and have the highest risk of attack in the case of the default configurations because they are often connected to the internet and use weak or default passwords that can be easily guessed or cracked by malicious bots. Internet bots are software applications that run automated tasks over the internet, usually with the intent to imitate human activity or exploit vulnerabilities. Some bots are used for legitimate purposes, such as web crawling or indexing, but others are used for malicious purposes, such as spamming, phishing, denial-of-service attacks, or credential stuffing. Security misconfigurations are one of the most common gaps that criminal hackers look to exploit. Therefore, it is important to secure the configuration of surveillance systems by changing the default passwords, updating the firmware, disabling unnecessary services, and enabling encryption and authentication.

<https://www.cctvcameraworld.com/setup-ip-camera-system-on-network/>

NEW QUESTION 282

- (Exam Topic 2)

An organization wants to ensure that proprietary information is not inadvertently exposed during facility tours. Which of the following would the organization implement to mitigate this risk?

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

Answer: A

Explanation:

A clean desk policy is a set of rules that require employees to clear their desks of any documents, papers, or devices that contain sensitive or confidential information when they leave their workstations. This policy helps to prevent unauthorized access, theft, or disclosure of proprietary information during facility tours or other situations where outsiders may visit the premises.

* A. Clean desk policy. This is the correct answer, because a clean desk policy is a simple and effective way to mitigate the risk of exposing proprietary information during facility tours.

NEW QUESTION 284

- (Exam Topic 2)

A systems administrator is required to enforce MFA for corporate email account access, relying on the possession factor. Which of the following authentication methods should the systems administrator choose? (Select two).

- A. passphrase
- B. Time-based one-time password
- C. Facial recognition
- D. Retina scan

- E. Hardware token
- F. Fingerprints

Answer: BE

Explanation:

Time-based one-time password (TOTP) and hardware token are authentication methods that rely on the possession factor, which means that the user must have a specific device or object in their possession to authenticate. A TOTP is a password that is valid for a short period of time and is generated by an app or a device that the user has. A hardware token is a physical device that displays a code or a password that the user can enter to authenticate. A passphrase (Option A) is a knowledge factor, while facial recognition (Option C), retina scan (Option D), and fingerprints (Option F) are all inherence factors.

https://ptgmedia.pearsoncmg.com/imprint_downloads/pearsonitcertification/bookreg/9780136798675/97801367 <https://www.youtube.com/watch?v=yCJyPPvM-xg>

NEW QUESTION 286

- (Exam Topic 2)

Which of the following has been implemented when a host-based firewall on a legacy Linux system allows connections from only specific internal IP addresses?

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

Answer: A

Explanation:

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

- > <https://www.techtarget.com/whatis/definition/compensating-control>
- > <https://reciprocity.com/resources/whats-the-difference-between-compensating-controls-and-mitigating-co>

NEW QUESTION 290

- (Exam Topic 2)

Which Of the following control types is patch management classified under?

- A. Deterrent
- B. Physical
- C. Corrective
- D. Detective

Answer: C

Explanation:

Patch management is a process that involves applying updates or fixes to software to address bugs, vulnerabilities, or performance issues. Patch management is classified under corrective control type, which is a type of control that aims to restore normal operations after an incident or event has occurred. Corrective controls can help mitigate the impact or damage caused by an incident or event and prevent it from happening again.

References: <https://www.comptia.org/certifications/security#examdetails> <https://www.comptia.org/content/guides/comptia-security-sy0-601-exam-objectives>
<https://www.csoonline.com/article/2124681/why-third-party-security-is-your-security.html>

NEW QUESTION 292

- (Exam Topic 2)

A company has installed badge readers for building access but is finding unau-thorized individuals roaming the hallways Of the following is the most likely cause?

- A. Shoulder surfing
- B. Phishing
- C. Tailgating
- D. Identity fraud

Answer: C

Explanation:

Tailgating is a physical security threat that occurs when an unauthorized person follows an authorized person into a restricted area without proper identification or authorization. It can cause unauthorized individuals to roam the hallways after gaining access through badge readers installed for building access.

NEW QUESTION 294

- (Exam Topic 2)

Which of the following describes business units that purchase and implement scripting software without approval from an organization's technology Support staff?

- A. Shadow IT
- B. Hacktivist
- C. Insider threat
- D. script kiddie

Answer: A

Explanation:

shadow IT is the use of IT-related hardware or software by a department or individual without the knowledge or approval of the IT or security group within the organization¹². Shadow IT can encompass cloud services, software, and hardware. The main area of concern today is the rapid adoption of cloud-based

service1s.

According to one source³, shadow IT helps you know and identify which apps are being used and what your risk level is. 80% of employees use non-sanctioned apps that no one has reviewed, and may not be compliant with your security and compliance policies.

NEW QUESTION 299

- (Exam Topic 2)

Two organizations are discussing a possible merger Both Organizations Chief Financial Officers would like to safely share payroll data with each Other to determine if the pay scales for different roles are similar at both organizations Which Of the following techniques would be best to protect employee data while allowing the companies to successfully share this information?

- A. Pseudo-anonymization
- B. Tokenization
- C. Data masking
- D. Encryption

Answer: A

Explanation:

Pseudo-anonymization is a technique of replacing sensitive data with artificial identifiers or pseudonyms that preserve some characteristics or attributes of the original data. It can protect employee data while allowing the companies to successfully share this information by removing direct identifiers such as names, addresses, etc., but retaining indirect identifiers such as job roles, pay scales, etc., that are relevant for the comparison.

NEW QUESTION 300

- (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 304

- (Exam Topic 2)

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

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

Answer: D

Explanation:

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

NEW QUESTION 305

- (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 310

- (Exam Topic 2)

After installing a patch On a security appliance. an organization realized a massive data exfiltration occurred. Which Of the following describes the incident?

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

Answer: A

Explanation:

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

NEW QUESTION 315

- (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 316

- (Exam Topic 2)

A security manager is attempting to meet multiple security objectives in the next fiscal year. The security manager has proposed the purchase of the following four items:

Vendor A:

1- Firewall

1-12 switch Vendor B: 1- Firewall

1-12 switch

Which of the following security objectives is the security manager attempting to meet? (Select two).

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

Answer: EF

Explanation:

* F. Redundancy is a security objective that aims to ensure availability and resilience of systems and data by having backup or alternative components or resources that can take over in case of a failure. By purchasing two firewalls and two switches from different vendors, the security manager is creating redundancy for the network devices and reducing the single point of failure risk. E. Replication is a security objective that aims to ensure integrity and availability of data by creating copies or duplicates of the data across different locations or devices. By purchasing two firewalls and two switches from different vendors, the security manager is enabling replication of the network traffic and data across different paths and devices. References: 1

CompTIA Security+ Certification Exam Objectives, page 9, Domain 2.0: Architecture and Design, Objective 2.3:

Summarize secure application development, deployment, and automation concepts 2

CompTIA Security+ Certification Exam Objectives, page 11, Domain 2.0: Architecture and Design, Objective 2.5: Explain the importance of physical security controls 3

CompTIA Security+ Certification Exam Objectives, page 13,

Domain 3.0: Implementation, Objective 3.2: Implement secure protocols

NEW QUESTION 320

- (Exam Topic 2)

The new Chief Information Security Officer at a company has asked the security team to implement stronger user account policies. The new policies require:

- Users to choose a password unique to their last ten passwords
- Users to not log in from certain high-risk countries

Which of the following should the security team implement? (Select two).

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

Answer: BC

Explanation:

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

NEW QUESTION 324

- (Exam Topic 2)

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 328

- (Exam Topic 2)

A security analyst is taking part in an evaluation process that analyzes and categorizes threat actors Of real-world events in order to improve the incident response team's process. Which Of the following is the analyst most likely participating in?

- A. MITRE ATT&CK
- B. Walk-through
- C. Red team
- D. Purple team-I
- E. TAXI

Answer: A

Explanation:

MITRE ATT&CK is a knowledge base and framework that analyzes and categorizes threat actors and real-world events based on their tactics, techniques and procedures. It can help improve the incident response team's process by providing a common language and reference for identifying, understanding and mitigating threats

NEW QUESTION 329

- (Exam Topic 2)

A security analyst receives an alert from the company's SIEM that anomalous activity is coming from a local source IP address of 192.168.34.26. The Chief Information Security Officer asks the analyst to block the originating source. Several days later another employee opens an internal ticket stating that vulnerability scans are no longer being performed properly. The IP address the employee provides is 192.168.34.26. Which of the following describes this type of alert?

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

Answer: C

Explanation:

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

NEW QUESTION 331

- (Exam Topic 2)

Which of the following is a security implication of newer ICS devices that are becoming more common in corporations?

- A. Devices with cellular 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 lack 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 334

- (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 335

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