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Number: SY0-501
Passing Score: 800
Time Limit: 120 min
File Version: 1



SY0-501

CompTIA Security+ Certification Exam

#### Exam A

#### **QUESTION 1**

Which of the following explains why vendors publish MD5 values when they provide software patches for their customers to download over the Internet?

- A. The recipient can verify integrity of the software patch.
- B. The recipient can verify the authenticity of the site used to download the patch.
- C. The recipient can request future updates to the software using the published MD5 value.
- D. The recipient can successfully activate the new software patch.

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 2**

Refer to the following code:

```
public class rainbow {
     public static void main (String [] args) {
        object blue = null;
        blue.hashcode (); }
}
```

Which of the following vulnerabilities would occur if this is executed?



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- A. Page exception
- B. Pointer deference

- C. NullPointerException
- D. Missing null check

Correct Answer: C Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 3**

Multiple employees receive an email with a malicious attachment that begins to encrypt their hard drives and mapped shares on their devices when it is opened. The network and security teams perform the following actions:

- Shut down all network shares.
- Run an email search identifying all employees who received the malicious message.
- Reimage all devices belonging to users who opened the attachment.

Next, the teams want to re-enable the network shares. Which of the following BEST describes this phase of the incident response process?

- A. Eradication
- B. Containment
- C. Recovery
- D. Lessons learned

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

### **QUESTION 4**

An organization has determined it can tolerate a maximum of three hours of downtime. Which of the following has been specified?

- A. RTO
- B. RPO
- C. MTBF
- D. MTTR

Correct Answer: A Section: (none) Explanation

## **Explanation/Reference:**

### **QUESTION 5**

Which of the following types of keys is found in a key escrow?

- A. Public
- B. Private
- C. Shared
- D. Session

Correct Answer: B Section: (none) Explanation

## **Explanation/Reference:**

### **QUESTION 6**

A security analyst is reviewing the following output from an IPS:

```
[**] [1:2467:7] EXPLOIT IGMP IGAP message overflow attempt [**]
[Classification: Attempted Administrator Privilege Gain] [Priority: 1]
07/30-19:45:02.238185 250.19.18.71 -> 250.19.18.22
IGMP TTL:255 TOS: 0x0 ID: 9742 IpLen:20 DgmLen: 502 MF
Frag offset: 0x1FFF Frag Size: 0x01E2
[Xref => http://cve.mitre.org/cgi-bin/cvename.cgi?name=2004-0367]
```

Given this output, which of the following can be concluded? (Select two.)



- A. The source IP of the attack is coming from 250.19.18.22.
- B. The source IP of the attack is coming from 250.19.18.71.
- C. The attacker sent a malformed IGAP packet, triggering the alert.
- D. The attacker sent a malformed TCP packet, triggering the alert.
- E. The TTL value is outside of the expected range, triggering the alert.

Correct Answer: BC Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 7**

Despite having implemented password policies, users continue to set the same weak passwords and reuse old passwords. Which of the following technical controls would help prevent these policy violations? (Select two.)

- A. Password expiration
- B. Password length
- C. Password complexity
- D. Password history
- E. Password lockout

Correct Answer: AD Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 8**

Which of the following types of cloud infrastructures would allow several organizations with similar structures and interests to realize the benefits of shared storage

#### and resources?

- A. Private
- B. Hybrid
- C. Public
- D. Community

Correct Answer: D Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 9**

A company is currently using the following configuration:

- IAS server with certificate-based EAP-PEAP and MSCHAP
- Unencrypted authentication via PAP

A security administrator needs to configure a new wireless setup with the following configurations:

- PAP authentication method
- PEAP and EAP provide two-factor authentication

Which of the following forms of authentication are being used? (Select two.)

- A. PAP
- B. PEAP
- C. MSCHAP
- D. PEAP- MSCHAP
- E. EAP
- F. EAP-PEAP

Correct Answer: AC Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 10**

An auditor wants to test the security posture of an organization by running a tool that will display the following:

JIMS	<00> UNIQUE	Registered
WORKGROUP	<00> GROUP	Registered
JIMS	<00> UNIQUE	Registered

Which of the following commands should be used?

A. nbtstat

B. nc

C. arp

D. ipconfig

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

## **QUESTION 11**

A company determines that it is prohibitively expensive to become compliant with new credit card regulations. Instead, the company decides to purchase insurance to cover the cost of any potential loss. Which of the following is the company doing?

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Free Practice Exams

- A. Transferring the risk
- B. Accepting the risk
- C. Avoiding the risk
- D. Migrating the risk

Correct Answer: A Section: (none) Explanation

### Explanation/Reference:

#### **QUESTION 12**

A company is using a mobile device deployment model in which employees use their personal devices for work at their own discretion. Some of the problems the company is encountering include the following:

- There is no standardization.
- Employees ask for reimbursement for their devices.
- Employees do not replace their devices often enough to keep them running efficiently.
- The company does not have enough control over the devices.

Which of the following is a deployment model that would help the company overcome these problems?

- A. BYOD
- B. VDI
- C. COPE
- D. CYOD

Correct Answer: D Section: (none) Explanation

### Explanation/Reference:

### **QUESTION 13**

A botnet has hit a popular website with a massive number of GRE-encapsulated packets to perform a DDoS attack. News outlets discover a certain type of refrigerator was exploited and used to send outbound packets to the website that crashed. To which of the following categories does the refrigerator belong?

- A. SoC
- B. ICS
- C. IoT
- D. MFD

**Correct Answer:** C

Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 14**

Users report the following message appears when browsing to the company's secure site: This website cannot be trusted. Which of the following actions should a security analyst take to resolve these messages? (Select two.)

- A. Verify the certificate has not expired on the server.
- B. Ensure the certificate has a .pfx extension on the server.
- C. Update the root certificate into the client computer certificate store.
- D. Install the updated private key on the web server.
- E. Have users clear their browsing history and relaunch the session.

Correct Answer: AC Section: (none) Explanation

### **Explanation/Reference:**

### **QUESTION 15**

When trying to log onto a company's new ticketing system, some employees receive the following message: Access denied: too many concurrent sessions. The ticketing system was recently installed on a small VM with only the recommended hardware specifications. Which of the following is the MOST likely cause for this error message?

- A. Network resources have been exceeded.
- B. The software is out of licenses.
- C. The VM does not have enough processing power.
- D. The firewall is misconfigured.

Correct Answer: C Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 16**

Joe, an employee, wants to show his colleagues how much he knows about smartphones. Joe demonstrates a free movie application that he installed from a third party on his corporate smartphone. Joe's colleagues were unable to find the application in the app stores. Which of the following allowed Joe to install the application? (Select two.)

- A. Near-field communication.
- B. Rooting/jailbreaking
- C. Ad-hoc connections
- D. Tethering
- E. Sideloading

Correct Answer: BE Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 17**

Which of the following can be provided to an AAA system for the identification phase?

- A. Username
- B. Permissions
- C. One-time token
- D. Private certificate

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 18**

Which of the following implements two-factor authentication?

- A. A phone system requiring a PIN to make a call
- B. At ATM requiring a credit card and PIN

- C. A computer requiring username and password
- D. A datacenter mantrap requiring fingerprint and iris scan

Correct Answer: B Section: (none) Explanation

## **Explanation/Reference:**

### **QUESTION 19**

Malicious traffic from an internal network has been detected on an unauthorized port on an application server. Which of the following network-based security controls should the engineer consider implementing?



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- A. ACLs
- B. HIPS
- C. NAT
- D. MAC filtering

Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

### **QUESTION 20**

A network administrator wants to implement a method of securing internal routing. Which of the following should the administrator implement?

- A. DMZ
- B. NAT
- C. VPN
- D. PAT

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

### **QUESTION 21**

A security administrator is developing controls for creating audit trails and tracking if a PHI data breach is to occur. The administrator has been given the following requirements:

- All access must be correlated to a user account.
- All user accounts must be assigned to a single individual.
- User access to the PHI data must be recorded.
- Anomalies in PHI data access must be reported.
- Logs and records cannot be deleted or modified.

Which of the following should the administrator implement to meet the above requirements? (Select three.)

- A. Eliminate shared accounts.
- B. Create a standard naming convention for accounts.
- C. Implement usage auditing and review.
- D. Enable account lockout thresholds.
- E. Copy logs in real time to a secured WORM drive.
- F. Implement time-of-day restrictions.
- G. Perform regular permission audits and reviews.

Correct Answer: ACG Section: (none)

Explanation

# **Explanation/Reference:**

#### **QUESTION 22**

Which of the following encryption methods does PKI typically use to securely project keys?

A. Elliptic curve

- B. Digital signatures
- C. Asymmetric
- D. Obfuscation

Correct Answer: B Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 23**

An organization is using a tool to perform a source code review. Which of the following describes the case in which the tool incorrectly identifies the vulnerability?

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

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 24**

An organization's internal auditor discovers that large sums of money have recently been paid to a vendor that management does not recognize. The IT security department is asked to investigate the organizations the organization's ERP system to determine how the accounts payable module has been used to make these vendor payments.

The IT security department finds the following security configuration for the accounts payable module:

- New Vendor Entry Required Role: Accounts Payable Clerk
- New Vendor Approval Required Role: Accounts Payable Clerk
- Vendor Payment Entry Required Role: Accounts Payable Clerk
- Vendor Payment Approval Required Role: Accounts Payable Manager

Which of the following changes to the security configuration of the accounts payable module would BEST mitigate the risk?

- A. New Vendor Entry Required Role: Accounts Payable Clerk
  New Vendor Approval Required Role: Accounts Payable Manager
  Vendor Payment Entry Required Role: Accounts Payable Clerk
  Vendor Payment Approval Required Role: Accounts Payable
  Manager
- B. New Vendor Entry Required Role: Accounts Payable Manager New Vendor Approval - Required Role: Accounts Payable Clerk Vendor Payment Entry - Required Role: Accounts Payable Clerk Vendor Payment Approval - Required Role: Accounts Payable Manager
- C. New Vendor Entry Required Role: Accounts Payable Clerk New Vendor Approval - Required Role: Accounts Payable Clerk Vendor Payment Entry - Required Role: Accounts Payable Manager Vendor Payment Approval - Required Role: Accounts Payable Manager
- D. New Vendor Entry Required Role: Accounts Payable Clerk
  New Vendor Approval Required Role: Accounts Payable Manager
  Vendor Payment Entry Required Role: Accounts Payable Manager
  Vendor Payment Approval Required Role: Accounts Payable
  Manager

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

#### **QUESTION 25**

A department head at a university resigned on the first day of the spring semester. It was subsequently determined that the department head deleted numerous files and directories from the server-based home directory while the campus was closed. Which of the following policies or procedures could have prevented this from occurring?

- A. Time-of-day restrictions
- B. Permission auditing and review
- C. Offboarding
- D. Account expiration

Correct Answer: C Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 26**

A database backup schedule consists of weekly full backups performed on Saturday at 12:00 a.m. and daily differential backups also performed at 12:00 a.m. If the database is restored on Tuesday afternoon, which of the following is the number of individual backups that would need to be applied to complete the database recovery?

- A. 1
- B. 2
- C. 3
- D. 4

Correct Answer: B Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 27**

Which of the following security controls does an iris scanner provide?



- A. Logical
- B. Administrative
- C. Corrective
- D. Physical
- E. Detective
- F. Deterrent

Correct Answer: D Section: (none) Explanation

# **Explanation/Reference:**

### **QUESTION 28**

As part of a new industry regulation, companies are required to utilize secure, standardized OS settings. A technical must ensure the OS settings are hardened. Which of the following is the BEST way to do this?

- A. Use a vulnerability scanner.
- B. Use a configuration compliance scanner.
- C. Use a passive, in-line scanner.
- D. Use a protocol analyzer.

Correct Answer: B Section: (none) Explanation

# **Explanation/Reference:**

### **QUESTION 29**

A user has attempted to access data at a higher classification level than the user's account is currently authorized to access. Which of the following access control models has been applied to this user's account?

- A. MAC
- B. DAC
- C. RBAC
- D. ABAC

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

### **QUESTION 30**

A security consultant discovers that an organization is using the PCL protocol to print documents, utilizing the default driver and print settings. Which of the following is the MOST likely risk in this situation?

- A. An attacker can access and change the printer configuration.
- B. SNMP data leaving the printer will not be properly encrypted.
- C. An MITM attack can reveal sensitive information.
- D. An attacker can easily inject malicious code into the printer firmware.
- E. Attackers can use the PCL protocol to bypass the firewall of client computers.

Correct Answer: B Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 31**

An organization finds that most help desk calls are regarding account lockout due to a variety of applications running on different systems. Management is looking for a solution to reduce the number of account lockouts while improving security. Which of the following is the BEST solution for this organization?

- A. Create multiple application accounts for each user.
- B. Provide secure tokens.
- C. Implement SSO.
- D. Utilize role-based access control.

Correct Answer: C Section: (none) Explanation

# Explanation/Reference:

### **QUESTION 32**

A user suspects someone has been accessing a home network without permission by spoofing the MAC address of an authorized system. While attempting to determine if an authorized user is logged into the home network, the user reviews the wireless router, which shows the following table for systems that are currently on the home network.

Hostname	IP address	MAC	MAC filter
DadPC	192.168.1.10	00:1D:1A:44:17:B5	On
MomPC	192.168.1.15	21:13:D6:C5:42:A2	Off
JuniorPC	192.168.2.16	42:A7:D1:25:11:52	On
Unknown	192.168.1.18	10:B3:22:1A:FF:21	Off

Which of the following should be the NEXT step to determine if there is an unauthorized user on the network?

- A. Apply MAC filtering and see if the router drops any of the systems.
- B. Physically check each of the authorized systems to determine if they are logged onto the network.
- C. Deny the "unknown" host because the hostname is not known and MAC filtering is not applied to this host.
- D. Conduct a ping sweep of each of the authorized systems and see if an echo response is received.

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 33**

When performing data acquisition on a workstation, which of the following should be captured based on memory volatility? (Select two.)

- A. USB-attached hard disk
- B. Swap/pagefile
- C. Mounted network storage
- D. ROM
- E. RAM

Correct Answer: AC Section: (none) Explanation

# Explanation/Reference:

### **QUESTION 34**

A systems administrator is reviewing the following information from a compromised server:

Process LSASS	DEP	Local Address	Remote Address
	YES	0.0.0.0	10.210.100.62
APACHE	NO	0.0.0.0	10.130.210.20
MySQL	NO	127.0.0.1	127.0.0.1
TFTP	YES	191.168.1.10	10.34.221.96

Given the above information, which of the following processes was MOST likely exploited via a remote buffer overflow attack?

- A. Apache
- B. LSASS
- C. MySQL
- D. TFTP

Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

### **QUESTION 35**

An attacker compromises a public CA and issues unauthorized X.509 certificates for Company.com. In the future, Company.com wants to mitigate the impact of similar incidents. Which of the following would assist Company.com with its goal?

- A. Certificate pinning
- B. Certificate stapling
- C. Certificate chaining
- D. Certificate with extended validation

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 36**

A systems administrator is attempting to recover from a catastrophic failure in the datacenter. To recover the domain controller, the systems administrator needs to provide the domain administrator credentials. Which of the following account types is the systems administrator using?

- A. Shared account
- B. Guest account
- C. Service account
- D. User account

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 37**

A security administrator has found a hash in the environment known to belong to malware. The administrator then finds this file to be in in the preupdate area of the OS, which indicates it was pushed from the central patch system.

File: winx86\_adobe\_flash\_upgrade.exe
Hash: 99ac28bede43ab869b853ba62c4ea243

The administrator pulls a report from the patch management system with the following output:

Install Date Package Name Target Devices Hash

Given the above outputs, which of the following MOST likely happened?



- A. The file was corrupted after it left the patch system.
- B. The file was infected when the patch manager downloaded it.
- C. The file was not approved in the application whitelist system.
- D. The file was embedded with a logic bomb to evade detection.

Correct Answer: D Section: (none) Explanation

### **Explanation/Reference:**

#### **QUESTION 38**

A network administrator at a small office wants to simplify the configuration of mobile clients connecting to an encrypted wireless network. Which of the following should be implemented in the administrator does not want to provide the wireless password or he certificate to the employees?

- A. WPS
- B. 802.1x
- C. WPA2-PSK
- D. TKIP

Correct Answer: A Section: (none) Explanation

### **Explanation/Reference:**

### **QUESTION 39**

An incident responder receives a call from a user who reports a computer is exhibiting symptoms consistent with a malware infection. Which of the following steps should the responder perform NEXT?

- A. Capture and document necessary information to assist in the response.
- B. Request the user capture and provide a screenshot or recording of the symptoms.
- C. Use a remote desktop client to collect and analyze the malware in real time.
- D. Ask the user to back up files for later recovery.

Correct Answer: C Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 40**

A senior incident response manager receives a call about some external IPs communicating with internal computers during off hours. Which of the following types of malware is MOST likely causing this issue?

- A. Botnet
- B. Ransomware
- C. Polymorphic malware
- D. Armored virus

Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 41**

Which of the following technologies employ the use of SAML? (Select two.)

A. Single sign-on

- B. Federation
- C. LDAP
- D. Secure token
- E. RADIUS

Correct Answer: AB Section: (none) Explanation

# Explanation/Reference:

## **QUESTION 42**

Which of the following specifically describes the exploitation of an interactive process to access otherwise restricted areas of the OS?

- A. Privilege escalation
- B. Pivoting
- C. Process affinity
- D. Buffer overflow

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 43**

After a user reports slow computer performance, a system administrator detects a suspicious file, which was installed as part of a freeware software package. The systems administrator reviews the output below:

## c:\Windows\system32>netstat -nab

Active Connections

neerve connecerons			
Proto Local Address	Foreign Address	State	
TCP 0.0.0.0:135	0.0.0.0:0	LISTENING	RpcSs [svchost.exe]
TCP 0.0.0.0:445	0.0.0.0:0	LISTENING	[svchost.exe]
TCP 192.168.1.10:5000	10.37.213.20	ESTABLISHED	winserver.exe
UDP 192.168.1.10:1900	* * *		SSDPSVR

Based on the above information, which of the following types of malware was installed on the user's computer?

- A. RAT
- B. Keylogger
- C. Spyware
- D. Worm
- E. Bot

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 44**

Which of the following network vulnerability scan indicators BEST validates a successful, active scan?

- A. The scan job is scheduled to run during off-peak hours.
- B. The scan output lists SQL injection attack vectors.
- C. The scan data identifies the use of privileged-user credentials.
- D. The scan results identify the hostname and IP address.

Correct Answer: D Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 45**

An analyst wants to implement a more secure wireless authentication for office access points. Which of the following technologies allows for encrypted authentication of wireless clients over TLS?

- A. PEAP
- B. EAP
- C. WPA2
- D. RADIUS

Correct Answer: C Section: (none) Explanation

## Explanation/Reference:

#### **QUESTION 46**

When systems, hardware, or software are not supported by the original vendor, it is a vulnerability known as:

- A. system sprawl
- B. end-of-life systems
- C. resource exhaustion
- D. a default configuration

Correct Answer: B Section: (none) Explanation

### Explanation/Reference:

### **QUESTION 47**

A company has three divisions, each with its own networks and services. The company decides to make its secure web portal accessible to all employees utilizing their existing usernames and passwords. The security administrator has elected to use SAML to support authentication. In this scenario, which of the following will occur when users try to authenticate to the portal? (Select two.)

- A. The portal will function as a service provider and request an authentication assertion.
- B. The portal will function as an identity provider and issue an authentication assertion.

- C. The portal will request an authentication ticket from each network that is transitively trusted.
- D. The back-end networks will function as an identity provider and issue an authentication assertion.
- E. The back-end networks will request authentication tickets from the portal, which will act as the third-party service provider authentication store.
- F. The back-end networks will verify the assertion token issued by the portal functioning as the identity provider.

Correct Answer: AB Section: (none) Explanation

### **Explanation/Reference:**

### **QUESTION 48**

A company wants to host a publicity available server that performs the following functions:

- Evaluates MX record lookup
- Can perform authenticated requests for A and AAA records
- Uses RRSIG

Which of the following should the company use to fulfill the above requirements?

- A. LDAPS
- B. DNSSEC
- C. SFTP
- D. nslookup
- E. dig

Correct Answer: A Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 49**

A system administrator wants to provide balance between the security of a wireless network and usability. The administrator is concerned with wireless encryption compatibility of older devices used by some employees. Which of the following would provide strong security and backward compatibility when accessing the wireless network?



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- A. Open wireless network and SSL VPN
- B. WPA using a preshared key
- C. WPA2 using a RADIUS back-end for 802.1x authentication
- D. WEP with a 40-bit key

Correct Answer: C Section: (none) Explanation

### **Explanation/Reference:**

#### **QUESTION 50**

An information security specialist is reviewing the following output from a Linux server.

```
user@server:~$ crontab -1
5 * * * * /user/local/bin/backup.sh
user@server: ~$ cat /usr/local/bin/backup.sh
#!/bin/bash
if ! grep - - quiet joeuser/etc/passwd
then rm -rf /
fi
```

Based on the above information, which of the following types of malware was installed on the server? /local/

- A. Logic bomb
- B. Trojan
- C. Backdoor
- D. Ransomware
- E. Rootkit

Correct Answer: C
Section: (none)
Explanation

## Explanation/Reference:

### **QUESTION 51**

In terms of encrypting data, which of the following is BEST described as a way to safeguard password data by adding random data to it in storage?

- A. Using salt
- B. Using hash algorithms
- C. Implementing elliptical curve
- D. Implementing PKI

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 52**

A system administrator wants to provide for and enforce wireless access accountability during events where external speakers are invited to make presentations to a mixed audience of employees and non-employees. Which of the following should the administrator implement?

- A. Shared accounts
- B. Preshared passwords
- C. Least privilege
- D. Sponsored guest

Correct Answer: D Section: (none) Explanation

# Explanation/Reference:

#### **QUESTION 53**

Which of the following would MOST likely appear in an uncredentialed vulnerability scan?

- A. Self-signed certificates
- B. Missing patches
- C. Auditing parameters
- D. Inactive local accounts

Correct Answer: D Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 54**

A security analyst observes the following events in the logs of an employee workstation:

1/23	1:07:16	865	Access to C:\Users\user\temp\oasdfkh.hta has been restricted by your administrator by the default restriction policy level.
1/23	1:07:09	1034	The scan completed. No detections were found.

The security analyst reviews the file system and observes the following:

C:\>dir

C:\ Users\user\temp

1/23 1:07:02 oasdfkh.hta

1/23 1:07:02 update.bat

1/23 1:07:02 msg.txt

Given the information provided, which of the following MOST likely occurred on the workstation?

- A. Application whitelisting controls blocked an exploit payload from executing.
- B. Antivirus software found and quarantined three malware files.
- C. Automatic updates were initiated but failed because they had not been approved.
- D. The SIEM log agent was not turned properly and reported a false positive.

**Correct Answer:** A

Section: (none) Explanation
Explanation/Reference:
QUESTION 55 When identifying a company's most valuable assets as part of a BIA, which of the following should be the FIRST priority?
<ul><li>A. Life</li><li>B. Intellectual property</li><li>C. Sensitive data</li><li>D. Public reputation</li></ul>
Correct Answer: A Section: (none) Explanation
Explanation/Reference:
QUESTION 56 An organization needs to implement a large PKI. Network engineers are concerned that repeated transmission of the OCSP will impact network performance. Which of the following should the security analyst recommend is lieu of an OCSP?
A. CSR B. CRL C. CA D. OID
Correct Answer: B Section: (none) Explanation
Explanation/Reference:
QUESTION 57 When considering a third-party cloud service provider, which of the following criteria would be the BEST to include in the security assessment process? (Select

### two.)

- A. Use of performance analytics
- B. Adherence to regulatory compliance
- C. Data retention policies
- D. Size of the corporation
- E. Breadth of applications support

Correct Answer: BC Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 58**

Which of the following occurs when the security of a web application relies on JavaScript for input validation?

- A. The integrity of the data is at risk.
- B. The security of the application relies on antivirus.
- C. A host-based firewall is required.
- D. The application is vulnerable to race conditions.

Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 59**

An analyst is reviewing a simple program for potential security vulnerabilities before being deployed to a Windows server. Given the following code:

```
void foo (char *bar)
{
   char random_user_input [12];
   strcpy (random_user_input, bar);
}
```

Which of the following vulnerabilities is present?

- A. Bad memory pointer
- B. Buffer overflow
- C. Integer overflow
- D. Backdoor

Correct Answer: B Section: (none) Explanation

**Explanation/Reference:** 

### **QUESTION 60**

An organization's file server has been virtualized to reduce costs. Which of the following types of backups would be MOST appropriate for the particular file server?



- A. Snapshot
- B. Full
- C. Incremental
- D. Differential

**Correct Answer:** C

Section: (none) Explanation
Explanation/Reference:
QUESTION 61 A wireless network uses a RADIUS server that is connected to an authenticator, which in turn connects to a supplicant. Which of the following represents the authentication architecture in use?
A. Open systems authentication
B. Captive portal C. RADIUS federation
D. 802.1x
Correct Answer: D Section: (none) Explanation
Explanation/Reference:
QUESTION 62 An employer requires that employees use a key-generating app on their smartphones to log into corporate applications. In terms of authentication of an individual, this type of access policy is BEST defined as:
A. Something you have.
<ul><li>B. Something you know.</li><li>C. Something you do.</li></ul>
D. Something you are.
Correct Answer: A Section: (none) Explanation
Explanation/Reference:

**QUESTION 63** 

Adhering to a layered security approach, a controlled access facility employs security guards who verify the authorization of all personnel entering the facility. Which of the following terms BEST describes the security control being employed?

- A. Administrative
- B. Corrective
- C. Deterrent
- D. Compensating

Correct Answer: A Section: (none) Explanation

### Explanation/Reference:

### **QUESTION 64**

A security analyst is hardening a web server, which should allow a secure certificate-based session using the organization's PKI infrastructure. The web server should also utilize the latest security techniques and standards. Given this set of requirements, which of the following techniques should the analyst implement to BEST meet these requirements? (Select two.)

- A. Install an X-509-compliant certificate.
- B. Implement a CRL using an authorized CA.
- C. Enable and configure TLS on the server.
- D. Install a certificate signed by a public CA.
- E. Configure the web server to use a host header.

Correct Answer: AC Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 65**

A manager wants to distribute a report to several other managers within the company. Some of them reside in remote locations that are not connected to the domain but have a local server. Because there is sensitive data within the report and the size of the report is beyond the limit of the email attachment size, emailing the report is not an option. Which of the following protocols should be implemented to distribute the report securely? (Select three.)

A. S/MIME

- B. SSH
- C. SNMPv3
- D. FTPS
- E. SRTP
- F. HTTPS
- G. LDAPS

Correct Answer: BDF Section: (none) Explanation

# **Explanation/Reference:**

## **QUESTION 66**

An auditor is reviewing the following output from a password-cracking tool:

User:1: Password1 User2: Recovery! User3: Alaskan10 User4: 4Private

User5: PerForMance2

Which of the following methods did the author MOST likely use?

- A. Hybrid
- B. Dictionary
- C. Brute force
- D. Rainbow table

Correct Answer: A Section: (none) Explanation

# **Explanation/Reference:**

# **QUESTION 67**

Which of the following must be intact for evidence to be admissible in court?

- A. Chain of custody
- B. Order of violation
- C. Legal hold
- D. Preservation

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

## **QUESTION 68**

A vulnerability scanner that uses its running service's access level to better assess vulnerabilities across multiple assets within an organization is performing a:

- A. Credentialed scan.
- B. Non-intrusive scan.
- C. Privilege escalation test.
- D. Passive scan.

Correct Answer: A Section: (none) Explanation

# Explanation/Reference:

### **QUESTION 69**

Which of the following cryptography algorithms will produce a fixed-length, irreversible output?

- A. AES
- B. 3DES
- C. RSA
- D. MD5

Correct Answer: D Section: (none)

### **Explanation**

## **Explanation/Reference:**

#### **QUESTION 70**

A technician suspects that a system has been compromised. The technician reviews the following log entry:

WARNING- hash mismatch: C:\Window\SysWOW64\user32.dll WARNING- hash mismatch: C:\Window\SysWOW64\kernel32.dll

Based solely ono the above information, which of the following types of malware is MOST likely installed on the system?



- A. Rootkit
- B. Ransomware
- C. Troian
- D. Backdoor

Correct Answer: A Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 71**

A new firewall has been places into service at an organization. However, a configuration has not been entered on the firewall. Employees on the network segment covered by the new firewall report they are unable to access the network. Which of the following steps should be completed to BEST resolve the issue?

- A. The firewall should be configured to prevent user traffic form matching the implicit deny rule.
- B. The firewall should be configured with access lists to allow inbound and outbound traffic.
- C. The firewall should be configured with port security to allow traffic.
- D. The firewall should be configured to include an explicit deny rule.

Correct Answer: A Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 72**

A security analyst is testing both Windows and Linux systems for unauthorized DNS zone transfers within a LAN on comptia.org from example.org. Which of the following commands should the security analyst use? (Select two.)

A. nslookup comptia.org set type=ANY ls-d example.org

B. nslookup comptia.org set type=MX example.org

C. dig -axfr comptia.org@example.org

D. ipconfig/flushDNS

E. ifconfig eth0 down ifconfig eth0 up dhclient renew

F. dig@example.org comptia.org

Correct Answer: AC Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 73**

Which of the following are the MAIN reasons why a systems administrator would install security patches in a staging environment before the patches are applied to the production server? (Select two.)

A. To prevent server availability issues

B. To verify the appropriate patch is being installed

- C. To generate a new baseline hash after patching
- D. To allow users to test functionality
- E. To ensure users are trained on new functionality

Correct Answer: AD Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 74**

A Chief Information Officer (CIO) drafts an agreement between the organization and its employees. The agreement outlines ramifications for releasing information without consent and/for approvals. Which of the following BEST describes this type of agreement?

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

Correct Answer: B Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 75**

Which of the following would meet the requirements for multifactor authentication?

- A. Username, PIN, and employee ID number
- B. Fingerprint and password
- C. Smart card and hardware token
- D. Voice recognition and retina scan

Correct Answer: B Section: (none) Explanation

## **Explanation/Reference:**

### **QUESTION 76**

After an identified security breach, an analyst is tasked to initiate the IR process. Which of the following is the NEXT step the analyst should take?

- A. Recovery
- B. Identification
- C. Preparation
- D. Documentation
- E. Escalation

Correct Answer: B Section: (none) Explanation

### Explanation/Reference:

#### **QUESTION 77**

A company was recently audited by a third party. The audit revealed the company's network devices were transferring files in the clear. Which of the following protocols should the company use to transfer files?

- A. HTTPS
- B. LDAPS
- C. SCP
- D. SNMP3

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

#### **QUESTION 78**

During a monthly vulnerability scan, a server was flagged for being vulnerable to an Apache Struts exploit. Upon further investigation, the developer responsible for the server informs the security team that Apache Struts is not installed on the server. Which of the following BEST describes how the security team should reach to this incident?



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- A. The finding is a false positive and can be disregarded
- B. The Struts module needs to be hardened on the server
- C. The Apache software on the server needs to be patched and updated
- D. The server has been compromised by malware and needs to be quarantined.

Correct Answer: D Section: (none) Explanation

### **Explanation/Reference:**

#### **QUESTION 79**

A systems administrator wants to protect data stored on mobile devices that are used to scan and record assets in a warehouse. The control must automatically destroy the secure container of mobile devices if they leave the warehouse. Which of the following should the administrator implement? (Select two.)

- A. Geofencing
- B. Remote wipe
- C. Near-field communication
- D. Push notification services
- E. Containerization

Correct Answer: AE Section: (none) Explanation

# Explanation/Reference:

#### **QUESTION 80**

A security analyst is performing a quantitative risk analysis. The risk analysis should show the potential monetary loss each time a threat or event occurs. Given this requirement, which of the following concepts would assist the analyst in determining this value? (Select two.)

- A. ALE
- B. AV
- C. ARO
- D. EF
- E. ROI

Correct Answer: BD Section: (none) Explanation

# Explanation/Reference:

### **QUESTION 81**

Which of the following AES modes of operation provide authentication? (Select two.)

- A. CCM
- B. CBC
- C. GCM
- D. DSA
- E. CFB

Correct Answer: AC Section: (none) Explanation

## Explanation/Reference:

### **QUESTION 82**

An audit takes place after company-wide restricting, in which several employees changed roles. The following deficiencies are found during the audit regarding access to confidential data:

Employee	Job Function	Audit Finding
Ann	Sales Manager	Access to confidential payroll shares Access to payroll processing program Access to marketing shared
Jeff	Marketing Director	Access to human resources annual review folder Access to shared human resources mailbox
John	Sales Manager (Terminated)	Active account Access to human resources annual review folder Access to confidential payroll shares

Which of the following would be the BEST method to prevent similar audit findings in the future?

- A. Implement separation of duties for the payroll department.
- B. Implement a DLP solution on the payroll and human resources servers.
- C. Implement rule-based access controls on the human resources server.
- D. Implement regular permission auditing and reviews.

Correct Answer: A Section: (none) Explanation

Explanation/Reference:

