



**Vendor: CompTIA**

**Exam Code: SY0-501**

**Exam Name: CompTIA Security+ Certification Exam**

**Version: Demo**

**QUESTION 1**

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**

**QUESTION 2**

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?

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

**Correct Answer: A**

**QUESTION 3**

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**

**QUESTION 4**

Which of the following attack types BEST describes a client-side attack that is used to manipulate an HTML iframe with JavaScript code via a web browser?

- A. Buffer overflow
- B. MITM
- C. XSS
- D. SQLi

**Correct Answer: C**

**QUESTION 5**

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

**QUESTION 6**

A security analyst is hardening a server with the directory services role installed. The analyst must ensure LDAP traffic cannot be monitored or sniffed and maintains compatibility with LDAP clients. Which of the following should the analyst implement to meet these requirements? (Select two.)

- A. Generate an X.509-compliant certificate that is signed by a trusted CA.
- B. Install and configure an SSH tunnel on the LDAP server.
- C. Ensure port 389 is open between the clients and the servers using the communication.
- D. Ensure port 636 is open between the clients and the servers using the communication.
- E. Remote the LDAP directory service role from the server.

**Correct Answer:** BD

**QUESTION 7**

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:** D

**QUESTION 8**

Which of the following cryptographic attacks would salting of passwords render ineffective?

- A. Brute force
- B. Dictionary
- C. Rainbow tables
- D. Birthday

**Correct Answer:** B

**QUESTION 9**

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

Process	DEP	Local Address	Remote Address
LSASS	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**

**QUESTION 10**

Which of the following BEST describes an important security advantage yielded by implementing vendor diversity?

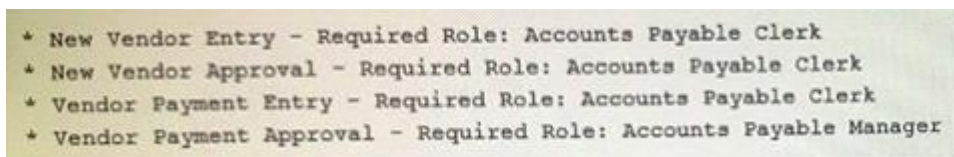
- A. Sustainability
- B. Homogeneity
- C. Resiliency
- D. Configurability

**Correct Answer: C**

**QUESTION 11**

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 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:



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: D**

### QUESTION 12

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
Proto Local Address      Foreign Address    State              RpcSs [svchost.exe]
TCP    0.0.0.0:135        0.0.0.0:0          LISTENING         [svchost.exe]
TCP    0.0.0.0:445        0.0.0.0:0          LISTENING
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: D**

**QUESTION 13**

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

**QUESTION 14**

A company is developing a new secure technology and requires computers being used for development to be isolated. Which of the following should be implemented to provide the MOST secure environment?

- A. A perimeter firewall and IDS
- B. An air gapped computer network
- C. A honeypot residing in a DMZ
- D. An ad hoc network with NAT
- E. A bastion host

**Correct Answer:** B

**QUESTION 15**

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

**QUESTION 16**

Two users need to send each other emails over unsecured channels. The system should support the principle of non-repudiation. Which of the following should be used to sign the user's certificates?

- A. RA
- B. CA
- C. CRL
- D. CSR

**Correct Answer:** B

**QUESTION 17**

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

**QUESTION 18**

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

**QUESTION 19**

Ann, an employee in the payroll department, has contacted the help desk citing multiple issues with her device, including:

- Slow performance
- Word documents, PDFs, and images no longer opening
- A pop-up

Ann states the issues began after she opened an invoice that a vendor emailed to her. Upon opening the invoice, she had to click several security warnings to view it in her word processor. With which of the following is the device MOST likely infected?

- A. Spyware
- B. Crypto-malware

- C. Rootkit
- D. Backdoor

**Correct Answer: D**

**QUESTION 20**

A company has a data system with definitions for "Private" and "Public". The company's security policy outlines how data should be protected based on type. The company recently added the data type "Proprietary". Which of the following is the MOST likely reason the company added this data type?

- A. Reduced cost
- B. More searchable data
- C. Better data classification
- D. Expanded authority of the privacy officer

**Correct Answer: B**

**QUESTION 21**

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**

**QUESTION 22**

A high-security defense installation recently begun utilizing large guard dogs that bark very loudly and excitedly at the slightest provocation. Which of the following types of controls does this BEST describe?

- A. Deterrent
- B. Preventive
- C. Detective
- D. Compensating

**Correct Answer: A**