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Sections

1. Security and Risk Management
2. Asset Security
3. Security Architecture and Engineering
4. Communication and Network Security
5. Identity and Access Management (IAM)
6. Security Assessment and Testing

- 7. Security Operations
- 8. Software Development Security
- 9. Mixed questions

Exam A

QUESTION 1

All of the following items should be included in a Business Impact Analysis (BIA) questionnaire EXCEPT questions that

- A. determine the risk of a business interruption occurring
- B. determine the technological dependence of the business processes



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- C. Identify the operational impacts of a business interruption
- D. Identify the financial impacts of a business interruption

Correct Answer: B

Section: Security and Risk Management

Explanation

Explanation/Reference:

Reference:

https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjbtbTpLaAhVlr48KHZuhB0UQFggmMAA&url=http%3A%2F%2Fwww.oregon.gov%2Fdas%2FProcurement%2FGuidDoc%2FBusImpAnalysQs.doc&usq=AOvVaw1wBxcnLP8ceI_yhv2rsI9h

QUESTION 2

Which of the following represents the GREATEST risk to data confidentiality?

- A. Network redundancies are not implemented

- B. Security awareness training is not completed
- C. Backup tapes are generated unencrypted
- D. Users have administrative privileges

Correct Answer: C

Section: Security and Risk Management

Explanation

Explanation/Reference:

QUESTION 3

A company whose Information Technology (IT) services are being delivered from a Tier 4 data center, is preparing a companywide Business Continuity Planning (BCP). Which of the following failures should the IT manager be concerned with?

- A. Application
- B. Storage
- C. Power
- D. Network

Correct Answer: C

Section: Security and Risk Management

Explanation

Explanation/Reference:

Reference: <https://www.colocationamerica.com/data-center/tier-standards-overview.htm>

QUESTION 4

When assessing an organization's security policy according to standards established by the International Organization for Standardization (ISO) 27001 and 27002, when can management responsibilities be defined?

- A. Only when assets are clearly defined
- B. Only when standards are defined
- C. Only when controls are put in place
- D. Only procedures are defined

Correct Answer: A

Section: Security and Risk Management

Explanation

Explanation/Reference:

QUESTION 5

An important principle of defense in depth is that achieving information security requires a balanced focus on which PRIMARY elements?

- A. Development, testing, and deployment
- B. Prevention, detection, and remediation
- C. People, technology, and operations
- D. Certification, accreditation, and monitoring

Correct Answer: C

Section: Security and Risk Management

Explanation

Explanation/Reference:

Reference: <https://www.giac.org/paper/gsec/3873/information-warfare-cyber-warfare-future-warfare/106165> (14)

QUESTION 6

A control to protect from a Denial-of-Service (DoS) attack has been determined to stop 50% of attacks, and additionally reduces the impact of an attack by 50%. What is the residual risk?

- A. 25%
- B. 50%
- C. 75%
- D. 100%

Correct Answer: A

Section: Security and Risk Management

Explanation

Explanation/Reference:

QUESTION 7

Which of the following entails identification of data and links to business processes, applications, and data stores as well as assignment of ownership responsibilities?

- A. Security governance
- B. Risk management
- C. Security portfolio management
- D. Risk assessment

Correct Answer: B

Section: Security and Risk Management

Explanation

Explanation/Reference:

QUESTION 8

Which of the following mandates the amount and complexity of security controls applied to a security risk?

- A. Security vulnerabilities
- B. Risk tolerance
- C. Risk mitigation
- D. Security staff

Correct Answer: C

Section: Security and Risk Management

Explanation

Explanation/Reference:

QUESTION 9

A security professional determines that a number of outsourcing contracts inherited from a previous merger do not adhere to the current security requirements. Which of the following **BEST minimizes** the risk of this happening again?

- A. Define additional security controls directly after the merger
- B. Include a procurement officer in the merger team
- C. Verify all contracts before a merger occurs
- D. Assign a compliancy officer to review the merger conditions

Correct Answer: D

Section: Security and Risk Management
Explanation

Explanation/Reference:

QUESTION 10

Which of the following is a direct monetary cost of a security incident?

- A. Morale
- B. Reputation
- C. Equipment
- D. Information

Correct Answer: C

Section: Security and Risk Management
Explanation

Explanation/Reference:

QUESTION 11

Which of the following would **MINIMIZE** the ability of an attacker to exploit a buffer overflow?

- A. Memory review
- B. Code review
- C. Message division
- D. Buffer division

Correct Answer: B

Section: Security and Risk Management
Explanation

Explanation/Reference:

QUESTION 12

Which of the following mechanisms will **BEST** prevent a Cross-Site Request Forgery (CSRF) attack?

- A. parameterized database queries
- B. whitelist input values
- C. synchronized session tokens
- D. use strong ciphers

Correct Answer: C

Section: Security and Risk Management

Explanation

Explanation/Reference:

QUESTION 13

Which of the following is MOST important when assigning ownership of an asset to a department?

- A. The department should report to the business owner
- B. Ownership of the asset should be periodically reviewed
- C. Individual accountability should be ensured
- D. All members should be trained on their responsibilities

Correct Answer: B

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 14

Which one of the following affects the classification of data?

- A. Assigned security label
- B. Multilevel Security (MLS) architecture
- C. Minimum query size
- D. Passage of time

Correct Answer: D

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 15

Which of the following BEST describes the responsibilities of a data owner?

- A. Ensuring quality and validation through periodic audits for ongoing data integrity
- B. Maintaining fundamental data availability, including data storage and archiving
- C. Ensuring accessibility to appropriate users, maintaining appropriate levels of data security
- D. Determining the impact the information has on the mission of the organization

Correct Answer: C

Section: Asset Security

Explanation

Explanation/Reference:

Reference: <http://resources.infosecinstitute.com/category/certifications-training/cissp/domains/asset-security/data-and-system-ownership/#gref>

QUESTION 16

In a data classification scheme, the data is owned by the

- A. system security managers
- B. business managers
- C. Information Technology (IT) managers
- D. end users

Correct Answer: B

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 17

Which of the following is an effective control in preventing electronic cloning of Radio Frequency Identification (RFID) based access cards?

- A. Personal Identity Verification (PIV)
- B. Cardholder Unique Identifier (CHUID) authentication

- C. Physical Access Control System (PACS) repeated attempt detection
- D. Asymmetric Card Authentication Key (CAK) challenge-response

Correct Answer: C

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 18

Which factors **MUST** be considered when classifying information and supporting assets for risk management, legal discovery, and compliance?

- A. System owner roles and responsibilities, data handling standards, storage and secure development lifecycle requirements
- B. Data stewardship roles, data handling and storage standards, data lifecycle requirements
- C. Compliance office roles and responsibilities, classified material handling standards, storage system lifecycle requirements
- D. System authorization roles and responsibilities, cloud computing standards, lifecycle requirements

Correct Answer: A

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 19

An organization recently conducted a review of the security of its network applications. One of the vulnerabilities found was that the session key used in encrypting sensitive information to a third party server had been hard-coded in the client and server applications. Which of the following would be **MOST** effective in mitigating this vulnerability?

- A. Diffie-Hellman (DH) algorithm
- B. Elliptic Curve Cryptography (ECC) algorithm
- C. Digital Signature algorithm (DSA)
- D. Rivest-Shamir-Adleman (RSA) algorithm

Correct Answer: A

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 20

A company seizes a mobile device suspected of being used in committing fraud. What would be the **BEST** method used by a forensic examiner to isolate the powered-on device from the network and preserve the evidence?

- A. Put the device in airplane mode
- B. Suspend the account with the telecommunication provider
- C. Remove the SIM card
- D. Turn the device off

Correct Answer: A

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 21

Which of the following is the **MOST** effective method to mitigate Cross-Site Scripting (XSS) attacks?

- A. Use Software as a Service (SaaS)
- B. Whitelist input validation
- C. Require client certificates
- D. Validate data output

Correct Answer: B

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 22

A user has infected a computer with malware by connecting a Universal Serial Bus (USB) storage device. Which of the following is **MOST** effective to mitigate future infections?

- A. Develop a written organizational policy prohibiting unauthorized USB devices

- B. Train users on the dangers of transferring data in USB devices C. Implement centralized technical control of USB port connections



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- D. Encrypt removable USB devices containing data at rest

Correct Answer: C

Section: Asset Security

Explanation

Explanation/Reference:

QUESTION 23

Which technique can be used to make an encryption scheme more resistant to a known plaintext attack?

- A. Hashing the data before encryption
- B. Hashing the data after encryption
- C. Compressing the data after encryption
- D. Compressing the data before encryption

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 24

What is the second phase of Public Key Infrastructure (PKI) key/certificate life-cycle management?

- A. Implementation Phase
- B. Initialization Phase
- C. Cancellation Phase
- D. Issued Phase

Correct Answer: D

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 25

Who in the organization is accountable for classification of data information assets?

- A. Data owner
- B. Data architect
- C. Chief Information Security Officer (CISO)
- D. Chief Information Officer (CIO)

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 26

A **minimal** implementation of endpoint security includes which of the following?

- A. Trusted platforms
- B. Host-based firewalls
- C. Token-based authentication
- D. Wireless Access Points (AP)

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 27

What is the expected outcome of security awareness in support of a security awareness program?

- A. Awareness activities should be used to focus on security concerns and respond to those concerns accordingly
- B. Awareness is not an activity or part of the training but rather a state of persistence to support the program
- C. Awareness is training. The purpose of awareness presentations is to broaden attention of security.
- D. Awareness is not training. The purpose of awareness presentation is simply to focus attention on security.

Correct Answer: C

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 28

Which security modes is **MOST** commonly used in a commercial environment because it protects the integrity of financial and accounting data?

- A. Biba
- B. Graham-Denning
- C. Clark-Wilson
- D. Beil-LaPadula

Correct Answer: C

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 29

What is the foundation of cryptographic functions?

- A. Encryption
- B. Cipher

- C. Hash
- D. Entropy

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 30

The organization would like to deploy an authorization mechanism for an Information Technology (IT) infrastructure project with high employee turnover. Which access control mechanism would be preferred?

- Attribute Based Access Control (ABAC)
- B. Discretionary Access Control (DAC)
- C. Mandatory Access Control (MAC)
- D. Role-Based Access Control (RBAC)

Correct Answer: D

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 31

Which of the following management process allows **ONLY** those services required for users to accomplish their tasks, change default user passwords, and set servers to retrieve antivirus updates?

- A. Configuration
- B. Identity
- C. Compliance
- D. Patch

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 32

Which security access policy contains fixed security attributes that are used by the system to determine a user's access to a file or object?

- A. Mandatory Access Control (MAC)
- B. Access Control List (ACL)
- C. Discretionary Access Control (DAC)
- D. Authorized user control

Correct Answer: A

A.

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 33

Which of the following is a common characteristic of privacy?

- A. Provision for maintaining an audit trail of access to the private data
- B. Notice to the subject of the existence of a database containing relevant credit card data
- C. Process for the subject to inspect and correct personal data on-site
- D. Database requirements for integration of privacy data

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 34

At a **MINIMUM**, audits of permissions to individual or group accounts should be scheduled

- A. annually
- B. to correspond with staff promotions
- C. to correspond with terminations
- D. continually

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 35

Which of the following could be considered the **MOST** significant security challenge when adopting DevOps practices compared to a more traditional control framework?

- Achieving Service Level Agreements (SLA) on how quickly patches will be released when a security flaw is found.
- B. Maintaining segregation of duties.
- C. Standardized configurations for logging, alerting, and security metrics.
- D. Availability of security teams at the end of design process to perform last-minute manual audits and reviews.

Correct Answer: B

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 36

A security compliance manager of a large enterprise wants to reduce the time it takes to perform network, system, and application security compliance audits while increasing quality and effectiveness of the results.

What should be implemented to **BEST** achieve the desired results?

- A. Configuration Management Database (CMDB)
- B. Source code repository
- C. Configuration Management Plan (CMP)
- D. System performance monitoring application

Correct Answer: C

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 37

Which of the following is a responsibility of a data steward?

- A. Ensure alignment of the data governance effort to the organization.
- B. Conduct data governance interviews with the organization.
- C. Document data governance requirements.

A.

D. Ensure that data decisions and impacts are communicated to the organization.

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 38

Which security approach will **BEST** minimize Personally Identifiable Information (PII) loss from a data breach?

- A. End-to-end data encryption for data in transit
- B. Continuous monitoring of potential vulnerabilities
- C. A strong breach notification process
- D. Limited collection of individuals' confidential data

Correct Answer: D

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 39

Sensitive customer data is going to be added to a database. What is the **MOST** effective implementation for ensuring data privacy?

- A. Mandatory Access Control (MAC) procedures
- B. Discretionary Access Control (DAC) procedures
- C. Segregation of duties
- D. Data link encryption

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 40

Which of the following is the **BEST** reason for writing an information security policy?

- To support information security governance
- B. To reduce the number of audit findings
- C. To deter attackers
- D. To implement effective information security controls

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 41

Which of the **BEST** internationally recognized standard for evaluating security products and systems?

- A. Payment Card Industry Data Security Standards (PCI-DSS)
- B. Common Criteria (CC)
- C. Health Insurance Portability and Accountability Act (HIPAA)
- D. Sarbanes-Oxley (SOX)

Correct Answer: B

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 42

Even though a particular digital watermark is difficult to detect, which of the following represents a way it might still be inadvertently removed?

- A. Truncating parts of the data
- B. Applying Access Control Lists (ACL) to the data
- C. Appending non-watermarked data to watermarked data
- D. Storing the data in a database

A.

Correct Answer: A

Section: Security Architecture and Engineering

Explanation

Explanation/Reference:

QUESTION 43

Which of the following is used by the Point-to-Point Protocol (PPP) to determine packet formats?

- A. Layer 2 Tunneling Protocol (L2TP)
- B. Link Control Protocol (LCP)
- C. Challenge Handshake Authentication Protocol (CHAP)
- D. Packet Transfer Protocol (PTP)

Correct Answer: B

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 44

Which of the following operates at the Network Layer of the Open System Interconnection (OSI) model?

- A. Packet filtering
- B. Port services filtering
- C. Content filtering
- D. Application access control

Correct Answer: A

Section: Communication and Network Security

Explanation

Explanation/Reference:

Reference: <https://www.sans.org/reading-room/whitepapers/protocols/applying-osi-layer-network-model-information-security-1309> (10)

QUESTION 45

An input validation and exception handling vulnerability has been discovered on a critical web-based system. Which of the following is MOST suited to quickly implement a control?

- A. Add a new rule to the application layer firewall
- B. Block access to the service
- C. Install an Intrusion Detection System (IDS)

D. Patch the application source code

Correct Answer: A

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 46

A post-implementation review has identified that the Voice Over Internet Protocol (VoIP) system was designed to have gratuitous Address Resolution Protocol (ARP) disabled.

Why did the network architect likely design the VoIP system with gratuitous ARP disabled?

- A. Gratuitous ARP requires the use of Virtual Local Area Network (VLAN) 1.
- B. Gratuitous ARP requires the use of insecure layer 3 protocols.
- C. Gratuitous ARP requires the likelihood of a successful brute-force attack on the phone.
- D. Gratuitous ARP requires the risk of a Man-in-the-Middle (MITM) attack.

Correct Answer: D

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 47

Transport Layer Security (TLS) provides which of the following capabilities for a remote access server?

- A. Transport layer handshake compression
- B. Application layer negotiation
- C. Peer identity authentication
- D. Digital certificate revocation

Correct Answer: C

Section: Communication and Network Security

Explanation

QUESTION 48

Explanation/Reference:

A chemical plant wants to upgrade the Industrial Control System (ICS) to transmit data using Ethernet instead of RS422. The project manager wants to simplify administration and maintenance by utilizing the office network infrastructure and staff to implement this upgrade. Which of the following is the **GREATEST** impact on security for the network?

- A. The network administrators have no knowledge of ICS
- B. The ICS is now accessible from the office network
- C. The ICS does not support the office password policy
- D. RS422 is more reliable than Ethernet

Correct Answer: B

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 49

What does a Synchronous (SYN) flood attack do?

- A. Forces Transmission Control Protocol /Internet Protocol (TCP/IP) connections into a reset state
- B. Establishes many new Transmission Control Protocol / Internet Protocol (TCP/IP) connections
- C. Empties the queue of pending Transmission Control Protocol /Internet Protocol (TCP/IP) requests
- D. Exceeds the limits for new Transmission Control Protocol /Internet Protocol (TCP/IP) connections

Correct Answer: B

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 50

Which of the following is considered best practice for preventing e-mail spoofing?

- A. Cryptographic signature
- B. Uniform Resource Locator (URL) filtering
- C. Spam filtering
- D. Reverse Domain Name Service (DNS) lookup

Correct Answer: A

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 51

In a High Availability (HA) environment, what is the **PRIMARY** goal of working with a virtual router address as the gateway to a network?

- A. The second of two routers can periodically check in to make sure that the first router is operational.
- B. The second of two routers can better absorb a Denial of Service (DoS) attack knowing the first router is present.
- C. The first of two routers fails and is reinstalled, while the second handles the traffic flawlessly.
- D. The first of two routers can better handle specific traffic, while the second handles the rest of the traffic seamlessly.

Correct Answer: C

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 52

How does Encapsulating Security Payload (ESP) in transport mode affect in the Internet Protocol (IP)?

- A. Authenticates the IP payload and selected portions of the IP header
- B. Encrypts and optionally authenticates the complete IP packet
- C. Encrypts and optionally authenticates the IP header, but not the IP payload
- D. Encrypts and optionally authenticates the IP payload, but not the IP header

Correct Answer: D

Section: Communication and Network Security

Explanation/Reference:

QUESTION 53

A company receives an email threat informing of an Imminent Distributed Denial of Service (DDoS) attack targeting its web application, unless ransom is paid. Which of the following techniques **BEST** addresses that threat?

- A. Deploying load balancers to distribute inbound traffic across multiple data centers
- B. Set Up Web Application Firewalls (WAFs) to filter out malicious traffic
- C. Implementing reverse web-proxies to validate each new inbound connection
- D. Coordinate with and utilize capabilities within Internet Service Provider (ISP)

Correct Answer: D

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 54

What protocol is often used between gateway hosts on the Internet?

- A. Exterior Gateway Protocol (EGP)
- B. Border Gateway Protocol (BGP)
- C. Open Shortest Path First (OSPF)
- D. Internet Control Message Protocol (ICMP)

Correct Answer: B

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 55

“Stateful” differs from “Static” packet filtering firewalls by being aware of which of the following?

- A. Difference between a new and an established connection
- B. Originating network location
- C. Difference between a malicious and a benign packet payload

D. Originating application session

Correct Answer: A

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 56

Which of the following would an attacker **BEST** be able to accomplish through the use of Remote Access Tools (RAT)?

- A. Reduce the probability of identification
- B. Detect further compromise of the target
- C. Destabilize the operation of the host
- D. Maintain and expand control

Correct Answer: D

Section: Communication and Network Security

Explanation

Explanation/Reference:

QUESTION 57

A manufacturing organization wants to establish a Federated Identity Management (FIM) system with its 20 different supplier companies. Which of the following is the BEST solution for the manufacturing organization?

- A. Trusted third-party certification
- B. Lightweight Directory Access Protocol (LDAP)
- C. Security Assertion Markup language (SAML)
- D. Cross-certification

Correct Answer: C

Section: Identity and Access Management (IAM)

Explanation/Reference:

Reference: <https://www.netiq.com/documentation/access-manager-43/applications-configuration-guide/data/b1ka6lkd.html>

QUESTION 58

Which of the following BEST describes an access control method utilizing cryptographic keys derived from a smart card private key that is embedded within mobile devices?

- A. Derived credential
- B. Temporary security credential
- C. Mobile device credentialing service
- D. Digest authentication

Correct Answer: A

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 59

Users require access rights that allow them to view the average salary of groups of employees. Which control would prevent the users from obtaining an individual employee's salary?

- A. Limit access to predefined queries
- B. Segregate the database into a small number of partitions each with a separate security level
- C. Implement Role Based Access Control (RBAC)
- D. Reduce the number of people who have access to the system for statistical purposes

Correct Answer: C

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 60

What is the BEST approach for controlling access to highly sensitive information when employees have the same level of security clearance?

- A. Audit logs
- B. Role-Based Access Control (RBAC)
- C. Two-factor authentication
- D. Application of least privilege

Correct Answer: B

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 61

Which of the following is the **BEST** metric to obtain when gaining support for an Identify and Access Management (IAM) solution?

- A. Application connection successes resulting in data leakage
- B. Administrative costs for restoring systems after connection failure
- C. Employee system timeouts from implementing wrong limits
- D. Help desk costs required to support password reset requests

Correct Answer: D

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 62

In an organization where Network Access Control (NAC) has been deployed, a device trying to connect to the network is being placed into an isolated domain. What could be done on this device in order to obtain proper connectivity?

- A. Connect the device to another network jack
- B. Apply remediation's according to security requirements
- C. Apply Operating System (OS) patches
- D. Change the Message Authentication Code (MAC) address of the network interface

Correct Answer: B

Section: Identity and Access Management (IAM)

Explanation/Reference:

QUESTION 63

What is the second step in the identity and access provisioning lifecycle?

- A. Provisioning
- B. Review
- C. Approval
- D. Revocation

Correct Answer: B

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 64

Which of the following MUST be scalable to address security concerns raised by the integration of third-party identity services?

- A. Mandatory Access Controls (MAC)
- B. Enterprise security architecture
- C. Enterprise security procedures
- D. Role Based Access Controls (RBAC)

Correct Answer: D

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 65

Which of the following is a common feature of an Identity as a Service (IDaaS) solution?

- A. Single Sign-On (SSO) authentication support

- B. Privileged user authentication support
- C. Password reset service support

D. Terminal Access Controller Access Control System (TACACS) authentication support

Correct Answer: A

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 66

An organization's security policy delegates to the data owner the ability to assign which user roles have access to a particular resource. What type of authorization mechanism is being used?

- A. Discretionary Access Control (DAC)
- B. Role Based Access Control (RBAC)
- C. Media Access Control (MAC)
- D. Mandatory Access Control (MAC)

Correct Answer: A

Section: Identity and Access Management (IAM)

Explanation

Explanation/Reference:

QUESTION 67

Which of the following is of GREATEST assistance to auditors when reviewing system configurations?

- A. Change management processes
- B. User administration procedures
- C. Operating System (OS) baselines
- D. System backup documentation

Correct Answer: A

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 68

In which of the following programs is it MOST important to include the collection of security process data?

- A. Quarterly access reviews
- B. Security continuous monitoring
- C. Business continuity testing
- D. Annual security training

Correct Answer: A

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 69

A Virtual Machine (VM) environment has five guest Operating Systems (OS) and provides strong isolation. What MUST an administrator review to audit a user's access to data files?

- A. Host VM monitor audit logs
- B. Guest OS access controls
- C. Host VM access controls
- D. Guest OS audit logs

Correct Answer: A

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 70

Which type of test would an organization perform in order to locate and target exploitable defects?

- A. Penetration
- B. System
- C. Performance
- D. Vulnerability

Correct Answer: A

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 71

What is the **MAIN** reason for testing a Disaster Recovery Plan (DRP)?

- A. To ensure Information Technology (IT) staff knows and performs roles assigned to each of them
- B. To validate backup sites' effectiveness
- C. To find out what does not work and fix it
- D. To create a high level DRP awareness among Information Technology (IT) staff

Correct Answer: B

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 72

When designing a vulnerability test, which one of the following is likely to give the **BEST** indication of what components currently operate on the network?

- A. Ping testing
- B. Mapping tools
- C. Asset register
- D. Topology diagrams

Correct Answer: B

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 73

As part of an application penetration testing process, session hijacking can **BEST** be achieved by which of the following?

- A. Known-plaintext attack
- B. Denial of Service (DoS)
- C. Cookie manipulation
- D. Structured Query Language (SQL) injection

Correct Answer: D

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 74

What are the steps of a risk assessment?

- A. identification, analysis, evaluation
- B. analysis, evaluation, mitigation
- C. classification, identification, risk management
- D. identification, evaluation, mitigation

Correct Answer: A

Section: Security Assessment and Testing

Explanation

Explanation/Reference:

QUESTION 75

An organization is found lacking the ability to properly establish performance indicators for its Web hosting solution during an audit. What would be the MOST probable cause?

- A. Absence of a Business Intelligence (BI) solution
- B. Inadequate cost modeling
- C. Improper deployment of the Service-Oriented Architecture (SOA)
- D. Insufficient Service Level Agreement (SLA)

Correct Answer: D

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 76

What is the PRIMARY reason for implementing change management?

- A. Certify and approve releases to the environment
- B. Provide version rollbacks for system changes
- C. Ensure that all applications are approved
- D. Ensure accountability for changes to the environment

Correct Answer: D

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 77

Which of the following is a PRIMARY advantage of using a third-party identity service?

- A. Consolidation of multiple providers
- B. Directory synchronization
- C. Web based logon
- D. Automated account management

Correct Answer: D

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 78

With what frequency should monitoring of a control occur when implementing Information Security Continuous Monitoring (ISCM) solutions?

- A. Continuously without exception for all security controls
- B. Before and after each change of the control
- C. At a rate concurrent with the volatility of the security control
- D. Only during system implementation and decommissioning

Correct Answer: B

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 79

What should be the FIRST action to protect the chain of evidence when a desktop computer is involved?

- A. Take the computer to a forensic lab
- B. Make a copy of the hard drive
- C. Start documenting
- D. Turn off the computer

Correct Answer: C

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 80

What is the MOST important step during forensic analysis when trying to learn the purpose of an unknown application?

- A. Disable all unnecessary services
- B. Ensure chain of custody
- C. Prepare another backup of the system
- D. Isolate the system from the network

Correct Answer: D

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 81

A Business Continuity Plan/Disaster Recovery Plan (BCP/DRP) will provide which of the following?

- A. Guaranteed recovery of all business functions
- B. Minimization of the need decision making during a crisis
- C. Insurance against litigation following a disaster
- D. Protection from loss of organization resources

Correct Answer: D

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 82

Recovery strategies of a Disaster Recovery planning (DRIP) MUST be aligned with which of the following?

- A. Hardware and software compatibility issues
- B. Applications' critically and downtime tolerance
- C. Budget constraints and requirements
- D. Cost/benefit analysis and business objectives

Correct Answer: D

Section: Security Operations

Explanation

Explanation/Reference:

Reference: <http://www.pearsonitcertification.com/articles/article.aspx?p=1329710&seqNum=3>

QUESTION 83

Which of the following is the FIRST step in the incident response process?

A. Determine the cause of the incident

- B. Disconnect the system involved from the network
- C. Isolate and contain the system involved
- D. Investigate all symptoms to confirm the incident

Correct Answer: D

Section: Security Operations Explanation

Explanation/Reference:

QUESTION 84

A continuous information security monitoring program can BEST reduce risk through which of the following?

- A. Collecting security events and correlating them to identify anomalies
- B. Facilitating system-wide visibility into the activities of critical user accounts
- C. Encompassing people, process, and technology
- D. Logging both scheduled and unscheduled system changes

Correct Answer: B

Section: Security Operations Explanation

Explanation/Reference:

QUESTION 85

It is **MOST** important to perform which of the following to minimize potential impact when implementing a new vulnerability scanning tool in a production environment?

- A. Negotiate schedule with the Information Technology (IT) operation's team
- B. Log vulnerability summary reports to a secured server
- C. Enable scanning during off-peak hours
- D. Establish access for Information Technology (IT) management

Correct Answer: A

Section: Security Operations

Explanation/Reference:

QUESTION 86

A Security Operations Center (SOC) receives an incident response notification on a server with an active intruder who has planted a backdoor. Initial notifications are sent and communications are established.

What **MUST** be considered or evaluated before performing the next step?

- A. Notifying law enforcement is crucial before hashing the contents of the server hard drive
- B. Identifying who executed the incident is more important than how the incident happened
- C. Removing the server from the network may prevent catching the intruder
- D. Copying the contents of the hard drive to another storage device may damage the evidence

Correct Answer: C

Section: Security Operations Explanation

Explanation/Reference:

QUESTION 87

Which of the following is the **MOST** efficient mechanism to account for all staff during a speedy non-emergency evacuation from a large security facility?

- A. Large mantrap where groups of individuals leaving are identified using facial recognition technology
- B. Radio Frequency Identification (RFID) sensors worn by each employee scanned by sensors at each exit door
- C. Emergency exits with push bars with coordinates at each exit checking off the individual against a predefined list
- D. Card-activated turnstile where individuals are validated upon exit

Correct Answer: B

Section: Security Operations Explanation

Explanation/Reference:

QUESTION 88

What does electronic vaulting accomplish?

- A. It protects critical files.
- B. It ensures the fault tolerance of Redundant Array of Independent Disks (RAID) systems
- C. It stripes all database records
- D. It automates the Disaster Recovery Process (DRP)

Correct Answer: A

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 89

An organization adopts a new firewall hardening standard. How can the security professional verify that the technical staff correctly implemented the new standard?

- A. Perform a compliance review
- B. Perform a penetration test
- C. Train the technical staff
- D. Survey the technical staff

Correct Answer: B

Section: Security Operations

Explanation

Explanation/Reference:

QUESTION 90

When in the Software Development Life Cycle (SDLC) MUST software security functional requirements be defined?

- A. After the system preliminary design has been developed and the data security categorization has been performed
- B. After the vulnerability analysis has been performed and before the system detailed design begins
- C. After the system preliminary design has been developed and before the data security categorization begins
- D. After the business functional analysis and the data security categorization have been performed

Correct Answer: C

Section: Software Development Security

Explanation/Reference:

QUESTION 91

Which of the following is the BEST method to prevent malware from being introduced into a production environment?

- A. Purchase software from a limited list of retailers
- B. Verify the hash key or certificate key of all updates
- C. Do not permit programs, patches, or updates from the Internet
- D. Test all new software in a segregated environment

Correct Answer: D

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 92

The configuration management and control task of the certification and accreditation process is incorporated in which phase of the System Development Life Cycle (SDLC)?

- A. System acquisition and development
- B. System operations and maintenance
- C. System initiation
- D. System implementation

Correct Answer: A

Section: Software Development Security

Explanation

Explanation/Reference:

Reference <https://online.concordia.edu/computer-science/system-development-life-cycle-phases/>

QUESTION 93

What is the BEST approach to addressing security issues in legacy web applications?

- A. Debug the security issues
- B. Migrate to newer, supported applications where possible
- C. Conduct a security assessment
- D. Protect the legacy application with a web application firewall

Correct Answer: D

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 94

Which of the following is a web application control that should be put into place to prevent exploitation of Operating System (OS) bugs?

- A. Check arguments in function calls
- B. Test for the security patch level of the environment
- C. Include logging functions
- D. Digitally sign each application module

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 95

An Intrusion Detection System (IDS) has recently been deployed in a Demilitarized Zone (DMZ). The IDS detects a flood of malformed packets. Which of the following **BEST** describes what has occurred?

- A. Denial of Service (DoS) attack
- B. Address Resolution Protocol (ARP) spoof
- C. Buffer overflow
- D. Ping flood attack

Correct Answer: A

Section: Software Development Security

Explanation/Reference:

QUESTION 96

In configuration management, what baseline configuration information **MUST** be maintained for each computer system?

- A. Operating system and version, patch level, applications running, and versions.
- B. List of system changes, test reports, and change approvals

- C. Last vulnerability assessment report and initial risk assessment report
- D. Date of last update, test report, and accreditation certificate

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 97

Which technology is a prerequisite for populating the cloud-based directory in a federated identity solution?

- A. Notification tool
- B. Message queuing tool
- C. Security token tool
- D. Synchronization tool

Correct Answer: C

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 98

When using Generic Routing Encapsulation (GRE) tunneling over Internet Protocol version 4 (IPv4), where is the GRE header inserted?

- A. Into the options field
- B. Between the delivery header and payload
- C. Between the source and destination addresses

D. Into the destination address

Correct Answer: B

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 99

An application developer is deciding on the amount of idle session time that the application allows before a timeout. The **BEST** reason for determining the session timeout requirement is

- A. organization policy.
- B. industry best practices.
- C. industry laws and regulations.
- D. management feedback.

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 100

During the Security Assessment and Authorization process, what is the **PRIMARY** purpose for conducting a hardware and software inventory?

- A. Calculate the value of assets being accredited.
- B. Create a list to include in the Security Assessment and Authorization package.
- C. Identify obsolete hardware and software.
- D. Define the boundaries of the information system.

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 101

The goal of a Business Impact Analysis (BIA) is to determine which of the following?

- A. Cost effectiveness of business recovery
- B. Cost effectiveness of installing software security patches
- C. Resource priorities for recovery and Maximum Tolerable Downtime (MTD)
- D. Which security measures should be implemented

Correct Answer: C

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 102

How does a Host Based Intrusion Detection System (HIDS) identify a potential attack?

- A. Examines log messages or other indications on the system.
- B. Monitors alarms sent to the system administrator
- C. Matches traffic patterns to virus signature files
- D. Examines the Access Control List (ACL)

Correct Answer: C

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 103

From a cryptographic perspective, the service of non-repudiation includes which of the following features?

- A. Validity of digital certificates
- B. Validity of the authorization rules
- C. Proof of authenticity of the message
- D. Proof of integrity of the message

Correct Answer: C

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 104

Which of the following **BEST** represents the concept of least privilege? A. Access to an object is denied unless access is specifically allowed.



<https://vceplus.com/>

- B. Access to an object is only available to the owner.
- C. Access to an object is allowed unless it is protected by the information security policy.
- D. Access to an object is only allowed to authenticated users via an Access Control List (ACL).

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 105

Which of the following is an advantage of on-premise Credential Management Systems?

- A. Lower infrastructure capital costs
- B. Control over system configuration
- C. Reduced administrative overhead
- D. Improved credential interoperability

Correct Answer: B

Section: Software Development Security
Explanation

Explanation/Reference:

QUESTION 106

Which of the following approaches is the **MOST** effective way to dispose of data on multiple hard drives?

- A. Delete every file on each drive.
- B. Destroy the partition table for each drive using the command line.
- C. Degauss each drive individually.
- D. Perform multiple passes on each drive using approved formatting methods.

Correct Answer: D

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 107

Which of the following is the **PRIMARY** benefit of a formalized information classification program?

- A. It minimized system logging requirements.
- B. It supports risk assessment.
- C. It reduces asset vulnerabilities.
- D. It drives audit processes.

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 108

Which of the following is the **BEST** method to reduce the effectiveness of phishing attacks?

- A. User awareness
- B. Two-factor authentication
- C. Anti-phishing software
- D. Periodic vulnerability scan

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 109

The **PRIMARY** purpose of accreditation is to:

- A. comply with applicable laws and regulations.
- B. allow senior management to make an informed decision regarding whether to accept the risk of operating the system.
- C. protect an organization's sensitive data.
- D. verify that all security controls have been implemented properly and are operating in the correct manner.

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 110

When writing security assessment procedures, what is the **MAIN** purpose of the test outputs and reports?

- A. To force the software to fail and document the process
- B. To find areas of compromise in confidentiality and integrity
- C. To allow for objective pass or fail decisions
- D. To identify malware or hidden code within the test results

Correct Answer: C

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 111

A user sends an e-mail request asking for read-only access to files that are not considered sensitive. A Discretionary Access Control (DAC) methodology is in place. Which is the **MOST** suitable approach that the administrator should take?

- A. Administrator should request data owner approval to the user access
- B. Administrator should request manager approval for the user access

- C. Administrator should directly grant the access to the non-sensitive files
- D. Administrator should assess the user access need and either grant or deny the access

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 112

How should an organization determine the priority of its remediation efforts after a vulnerability assessment has been conducted?

- A. Use an impact-based approach.
- B. Use a risk-based approach.
- C. Use a criticality-based approach.
- D. Use a threat-based approach.

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 113

A proxy firewall operates at what layer of the Open System Interconnection (OSI) model?

- A. Transport
- B. Data link
- C. Network
- D. Application

Correct Answer: D

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 114

What is the **BEST** way to encrypt web application communications?

- A. Secure Hash Algorithm 1 (SHA-1)
- B. Secure Sockets Layer (SSL)
- C. Cipher Block Chaining Message Authentication Code (CBC-MAC)
- D. Transport Layer Security (TLS)

Correct Answer: D

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 115

A database administrator is asked by a high-ranking member of management to perform specific changes to the accounting system database. The administrator is specifically instructed to not track or evidence the change in a ticket. Which of the following is the **BEST** course of action?

- A. Ignore the request and do not perform the change.
- B. Perform the change as requested, and rely on the next audit to detect and report the situation.
- C. Perform the change, but create a change ticket regardless to ensure there is complete traceability.
- D. Inform the audit committee or internal audit directly using the corporate whistleblower process.

Correct Answer: D

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 116

Which of the following is a strategy of grouping requirements in developing a Security Test and Evaluation (ST&E)?

- A. Tactical, strategic, and financial
- B. Management, operational, and technical
- C. Documentation, observation, and manual
- D. Standards, policies, and procedures

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 117

Which of the following BEST describes a chosen plaintext attack?

- A. The cryptanalyst can generate ciphertext from arbitrary text.
- B. The cryptanalyst examines the communication being sent back and forth.
- C. The cryptanalyst can choose the key and algorithm to mount the attack.
- D. The cryptanalyst is presented with the ciphertext from which the original message is determined.

Correct Answer: A

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 118

For network based evidence, which of the following contains traffic details of all network sessions in order to detect anomalies?

- A. Alert data
- B. User data
- C. Content data
- D. Statistical data

Correct Answer:

Section: Software Development Security

Explanation

Explanation/Reference:

D

QUESTION 119

A company was ranked as high in the following National Institute of Standards and Technology (NIST) functions: Protect, Detect, Respond and Recover. However, a low maturity grade was attributed to the Identify function. In which of the following the controls categories does this company need to improve when analyzing its processes individually?

- A. Asset Management, Business Environment, Governance and Risk Assessment
- B. Access Control, Awareness and Training, Data Security and Maintenance
- C. Anomalies and Events, Security Continuous Monitoring and Detection Processes
- D. Recovery Planning, Improvements and Communications

Correct Answer: A

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 120

What operations role is responsible for protecting the enterprise from corrupt or contaminated media?

- A. Information security practitioner
- B. Information librarian
- C. Computer operator
- D. Network administrator

Correct Answer: B

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 121

Which of the following is the **PRIMARY** reason for employing physical security personnel at entry points in facilities where card access is in operation?

- A. To verify that only employees have access to the facility.
- B. To identify present hazards requiring remediation.
- C. To monitor staff movement throughout the facility.
- D. To provide a safe environment for employees.

Correct Answer: D

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 122

Which of the following countermeasures is the **MOST** effective in defending against a social engineering attack?

- A. Mandating security policy acceptance
- B. Changing individual behavior
- C. Evaluating security awareness training
- D. Filtering malicious e-mail content

Correct Answer: C

**Section: Software Development Security
Explanation**

Explanation/Reference:

QUESTION 123

Which of the following information **MUST** be provided for user account provisioning?

- A. Full name
- B. Unique identifier
- C. Security question
- D. Date of birth

B

Correct Answer:

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 124

A company has decided that they need to begin maintaining assets deployed in the enterprise. What approach should be followed to determine and maintain ownership information to bring the company into compliance?

- A. Enterprise asset management framework
- B. Asset baseline using commercial off the shelf software
- C. Asset ownership database using domain login records
- D. A script to report active user logins on assets

Correct Answer: A

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 125

Which of the following is considered a secure coding practice?

- A. Use concurrent access for shared variables and resources
- B. Use checksums to verify the integrity of libraries
- C. Use new code for common tasks
- D. Use dynamic execution functions to pass user supplied data

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 126

As part of the security assessment plan, the security professional has been asked to use a negative testing strategy on a new website. Which of the following actions would be performed?

- A. Use a web scanner to scan for vulnerabilities within the website.

- B. Perform a code review to ensure that the database references are properly addressed.
- C. Establish a secure connection to the web server to validate that only the approved ports are open.
- D. Enter only numbers in the web form and verify that the website prompts the user to enter a valid input.

Correct Answer: D

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 127

Which of the following alarm systems is recommended to detect intrusions through windows in a high-noise, occupied environment?

- A. Acoustic sensor
- B. Motion sensor
- C. Shock sensor
- D. Photoelectric sensor

Correct Answer: C

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 128

Which of the following is the **MOST** effective practice in managing user accounts when an employee is terminated?

- A. Implement processes for automated removal of access for terminated employees.
- B. Delete employee network and system IDs upon termination.
- C. Manually remove terminated employee user-access to all systems and applications.
- D. Disable terminated employee network ID to remove all access.

B

Correct Answer:

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 129

Which one of the following considerations has the **LEAST** impact when considering transmission security?

- A. Network availability B. Node locations
- C. Network bandwidth
- D. Data integrity

Correct Answer: C

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 130

The security accreditation task of the System Development Life Cycle (SDLC) process is completed at the end of which phase?

- A. System acquisition and development
- B. System operations and maintenance
- C. System initiation
- D. System implementation

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 131

Which of the following are important criteria when designing procedures and acceptance criteria for acquired software?

- A. Code quality, security, and origin
- B. Architecture, hardware, and firmware
- C. Data quality, provenance, and scaling
- D. Distributed, agile, and bench testing

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 132

What is the **PRIMARY** role of a scrum master in agile development?

- A. To choose the primary development language
- B. To choose the integrated development environment
- C. To match the software requirements to the delivery plan
- D. To project manage the software delivery

Correct Answer: D

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 133

What capability would typically be included in a commercially available software package designed for access control?

- A. Password encryption
- B. File encryption
- C. Source library control
- D. File authentication

Correct Answer: A

Section: Software Development Security

Explanation

Explanation/Reference:

QUESTION 134

An organization plan on purchasing a custom software product developed by a small vendor to support its business model.

Which unique consideration should be made part of the contractual agreement potential long-term risks associated with creating this dependency?

- A. A source code escrow clause
- B. Right to request an independent review of the software source code
- C. Due diligence form requesting statements of compliance with security requirements
- D. Access to the technical documentation

Correct Answer: B

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 135

When developing solutions for mobile devices, in which phase of the Software Development Life Cycle (SDLC) should technical limitations related to devices be specified?

- A. Implementation
- B. Initiation
- C. Review
- D. Development

Correct Answer: A

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 136

Which one of the following is an advantage of an effective release control strategy form a configuration control standpoint?

- A. Ensures that a trace for all deliverables is maintained and auditable

- B. Enforces backward compatibility between releases
- C. Ensures that there is no loss of functionality between releases
- D. Allows for future enhancements to existing features

Correct Answer: C

Section: Software Development Security Explanation

Explanation/Reference:

QUESTION 137

Which of the following is the **MOST** important output from a mobile application threat modeling exercise according to Open Web Application Security Project (OWASP)?

- A. The likelihood and impact of a vulnerability
- B. Application interface entry and endpoints
- C. Countermeasures and mitigations for vulnerabilities
- D. A data flow diagram for the application and attack surface analysis

Correct Answer: D

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 138

Continuity of operations is **BEST** supported by which of the following?

- A. Confidentiality, availability, and reliability
- B. Connectivity, reliability, and redundancy
- C. Connectivity, reliability, and recovery
- D. Confidentiality, integrity, and availability

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 139

Which of the following is the **MOST** important activity an organization performs to ensure that security is part of the overall organization culture?

- A. Perform formal reviews of security incidents.
- B. Work with senior management to meet business goals.
- C. Ensure security policies are issued to all employees.
- D. Manage a program of security audits.

Correct Answer: A

Section: Mixed questions **Explanation**

Explanation/Reference:

Reference: <https://techbeacon.com/security/6-ways-develop-security-culture-top-bottom>

QUESTION 140

What is the **MOST** common component of a vulnerability management framework?

- A. Risk analysis
- B. Patch management
- C. Threat analysis
- D. Backup management

Correct Answer: B

Section: Mixed questions **Explanation**

Explanation/Reference:

Reference: <https://www.helpnetsecurity.com/2016/10/11/effective-vulnerability-management-process/>

QUESTION 141

What determines the level of security of a combination lock?

- A. Complexity of combination required to open the lock
- B. Amount of time it takes to brute force the combination
- C. The number of barrels associated with the internal mechanism
- D. The hardness score of the metal lock material

Correct Answer: A

Section: Mixed questions**Explanation****Explanation/Reference:**

Reference: https://books.google.com.pk/books?id=RbihG-YALUkC&pg=PA976&lpg=PA976&dq=CISSP+determines+the+level+of+security+of+a+combination+lock&source=bl&ots=ld6arg_PLI9&sig=ACfU3U0kh_Trrg6mQ65NmAP5PnUCIPmD0Q&hl=en&sa=X&ved=2ahUKEwjg69zN4KnpAhUJmRoKHR01B_MQ6AEwDH_oECBUQAQ#v=onepage&q=combination%20lock&f=false

QUESTION 142

An organization that has achieved a Capability Maturity Model Integration (CMMI) level of 4 has done which of the following?

- A. Achieved optimized process performance
- B. Achieved predictable process performance
- C. Addressed the causes of common process variance
- D. Addressed continuous innovative process improvement

Correct Answer: A

Section: Mixed questions**Explanation****Explanation/Reference:**

Reference: <https://www.sciencedirect.com/topics/computer-science/capability-maturity-model-integration>

QUESTION 143

Which of the following is held accountable for the risk to organizational systems and data that result from outsourcing Information Technology (IT) systems and services?

- A. The acquiring organization
- B. The service provider
- C. The risk executive (function)
- D. The IT manager

Correct Answer: C

Section: Mixed questions Explanation**Explanation/Reference:**

QUESTION 144

Which of the following is the **PRIMARY** reason a sniffer operating on a network is collecting packets only from its own host?

- A. An Intrusion Detection System (IDS) has dropped the packets.
- B. The network is connected using switches.
- C. The network is connected using hubs.
- D. The network's firewall does not allow sniffing.

Correct Answer: A

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 145

Which of the following is mobile device remote fingerprinting?

- A. Installing an application to retrieve common characteristics of the device
- B. Storing information about a remote device in a cookie file
- C. Identifying a device based on common characteristics shared by all devices of a certain type
- D. Retrieving the serial number of the mobile device

Correct Answer: C

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 146

Which of the following open source software issues pose the **MOST** risk to an application?

- A. The software is beyond end of life and the vendor is out of business.
- B. The software is not used or popular in the development community.
- C. The software has multiple Common Vulnerabilities and Exposures (CVE) and only some are remediated.
- D. The software has multiple Common Vulnerabilities and Exposures (CVE) but the CVEs are classified as low risks.

Correct Answer: D

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 147

Which of the following is the **PRIMARY** mechanism used to limit the range of objects available to a given subject within different execution domains?

- A. Process isolation
- B. Data hiding and abstraction
- C. Use of discrete layering and Application Programming Interfaces (API)
- D. Virtual Private Network (VPN)

Correct Answer: C

Section: Mixed questions

Explanation

Explanation/Reference:

Reference: https://books.google.com.pk/books?id=LnjxBwAAQBAJ&pg=PT504&lpg=PT504&dq=CISSP+mechanism+used+to+limit+the+range+of+objects+available+to+a+given+subject+within+different+execution+domains&source=bl&ots=V-LJY4mkZy&sig=ACfU3U1adsKRObtT_I3tYTCLfHjS6gyLtg&hl=en&sa=X&ved=2ahUKEwi_jlPw16npAhWsxoUKHVoSA4AQ6AEwAHoECBMQAQ#v=onepage&q=CISSP%20mechanism%20used%20to%20limit%20the%20range%20of%20objects%20available%20to%20a%20given%20subject%20within%20different%20execution%20domains&f=false

QUESTION 148

Once the types of information have been identified, who should an information security practitioner work with to ensure that the information is properly categorized?

- A. Information Owner (IO)
- B. System Administrator
- C. Business Continuity (BC) Manager
- D. Chief Information Officer (CIO)

Correct Answer: A

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 149

What should be the **FIRST** action for a security administrator who detects an intrusion on the network based on precursors and other indicators?

- A. Isolate and contain the intrusion.
- B. Notify system and application owners.
- C. Apply patches to the Operating Systems (OS).
- D. Document and verify the intrusion.

Correct Answer: C

Section: Mixed questions Explanation

Explanation/Reference:

Reference: <https://securityintelligence.com/dont-dwell-on-it-how-to-detect-a-breach-on-your-network-more-efficiently/>

QUESTION 150

Which of the following needs to be taken into account when assessing vulnerability?

- A. Risk identification and validation
- B. Threat mapping
- C. Risk acceptance criteria
- D. Safeguard selection

Correct Answer: A

Section: Mixed questions Explanation

Explanation/Reference:

Reference: https://books.google.com.pk/books?id=9gCn86CmsNQC&pg=PA478&lpg=PA478&dq=CISSP+taken+into+account+when+assessing+vulnerability&source=bl&ots=riGvVpNN7I&sig=ACfU3U1isazG0OJIZdAAy91LvAW_rbXdAQ&hl=en&sa=X&ved=2ahUKEwj6p9vg4qnpAhUNxYUKHdODDZ4Q6AEwDHoECBMQAQ#v=onepage&q=CISSP%20taken%20into%20account%20when%20assessing%20vulnerability&f=false

QUESTION 151

Which of the following is **MOST** effective in detecting information hiding in Transmission Control Protocol/Internet Protocol (TCP/IP) traffic?

- A. Packet-filter firewall
- B. Content-filtering web proxy
- C. Stateful inspection firewall
- D. Application-level firewall

Correct Answer: C

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 152

An application team is running tests to ensure that user entry fields will not accept invalid input of any length. What type of negative testing is this an example of?

- A. Reasonable data
- B. Population of required fields
- C. Allowed number of characters
- D. Session testing

Correct Answer: C

Section: Mixed questions

Explanation

Explanation/Reference:

Reference: <https://www.softwaretestinghelp.com/what-is-negative-testing/>

QUESTION 153

An Internet software application requires authentication before a user is permitted to utilize the resource. Which testing scenario **BEST** validates the functionality of the application?

- A. Reasonable data testing
- B. Input validation testing
- C. Web session testing
- D. Allowed data bounds and limits testing

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 154

A security architect is responsible for the protection of a new home banking system. Which of the following solutions can **BEST** improve the confidentiality and integrity of this external system?

- A. Intrusion Prevention System (IPS)
- B. Denial of Service (DoS) protection solution

- C. One-time Password (OTP) token
- D. Web Application Firewall (WAF)

Correct Answer: A

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 155

What principle requires that changes to the plaintext affect many parts of the ciphertext?

- A. Encapsulation
- B. Permutation
- C. Diffusion
- D. Obfuscation

Correct Answer: C

Section: Mixed questions **Explanation**

Explanation/Reference:

Explanation:

Diffusion, on the other hand, means that a single plaintext bit has influence over several of the ciphertext bits. Changing a plaintext value should change many ciphertext values, not just one. In fact, in a strong block cipher, if one plaintext bit is changed, it will change every ciphertext bit with the probability of 50 percent. This means that if one plaintext bit changes, then about half of the ciphertext bits will change.

QUESTION 156

Which of the following **BEST** describes how access to a system is granted to federated user accounts?

- A. With the federation assurance level
- B. Based on defined criteria by the Relying Party (RP)
- C. Based on defined criteria by the Identity Provider (IdP)
- D. With the identity assurance level

Correct Answer: C

Section: Mixed questions **Explanation**

Explanation/Reference:

Reference: <https://resources.infosecinstitute.com/cissp-domain-5-refresh-identity-and-access-management/>

QUESTION 157

Which of the following is the primary advantage of segmenting Virtual Machines (VM) using physical networks?

- A. Simplicity of network configuration and network monitoring
- B. Removes the need for decentralized management solutions
- C. Removes the need for dedicated virtual security controls
- D. Simplicity of network configuration and network redundancy

Correct Answer: A

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 158

Which of the following processes has the **PRIMARY** purpose of identifying outdated software versions, missing patches, and lapsed system updates?

- A. Penetration testing
- B. Vulnerability management
- C. Software Development Life Cycle (SDLC)
- D. Life cycle management

Correct Answer: B

Section: Mixed questions

Explanation

Explanation/Reference:

Reference: <https://resources.infosecinstitute.com/category/certifications-training/cissp/domains/security-operations/vulnerability-and-patch-management/#gref>

QUESTION 159

A development operations team would like to start building new applications delegating the cybersecurity responsibility as much as possible to the service provider. Which of the following environments **BEST** fits their need?

- A. Cloud Virtual Machines (VM)
- B. Cloud application container within a Virtual Machine (VM)

- C. On premises Virtual Machine (VM)
- D. Self-hosted Virtual Machine (VM)

Correct Answer: A

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 160

What access control scheme uses fine-grained rules to specify the conditions under which access to each data item or applications is granted?

- A. Mandatory Access Control (MAC)
- B. Discretionary Access Control (DAC)
- C. Role Based Access Control (RBAC)
- D. Attribute Based Access Control (ABAC)

Correct Answer: D

Section: Mixed questions Explanation

Explanation/Reference:

Reference: https://en.wikipedia.org/wiki/Attribute-based_access_control

QUESTION 161

Why is planning the **MOST** critical phase of a Role Based Access Control (RBAC) implementation?

- A. The criteria for measuring risk is defined.
- B. User populations to be assigned to each role is determined.
- C. Role mining to define common access patterns is performed.
- D. The foundational criteria are defined.

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 162

Vulnerability scanners may allow for the administrator to assign which of the following in order to assist in prioritizing remediation activities?

- A. Definitions for each exposure type
- B. Vulnerability attack vectors
- C. Asset values for networks
- D. Exploit code metrics

Correct Answer: C

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 163

Physical assets defined in an organization's Business Impact Analysis (BIA) could include which of the following?

- A. Personal belongings of organizational staff members
- B. Supplies kept off-site at a remote facility
- C. Cloud-based applications
- D. Disaster Recovery (DR) line-item revenues

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 164

Compared with hardware cryptography, software cryptography is generally

- A. less expensive and slower.
- B. more expensive and faster.
- C. more expensive and slower.
- D. less expensive and faster.

Correct Answer: A

Section: Mixed questions

Explanation

Explanation/Reference:

Reference: <https://www.ontrack.com/uk/blog/making-data-simple/hardware-encryption-vs-software-encryption-the-simple-guide/>

QUESTION 165

A financial company has decided to move its main business application to the Cloud. The legal department objects, arguing that the move of the platform should comply with several regulatory obligations such as the General Data Protection (GDPR) and ensure data confidentiality. The Chief Information Security Officer (CISO) says that the cloud provider has met all regulations requirements and even provides its own encryption solution with internally-managed encryption keys to address data confidentiality. Did the CISO address all the legal requirements in this situation?

- A. No, because the encryption solution is internal to the cloud provider.
- B. Yes, because the cloud provider meets all regulations requirements.
- C. Yes, because the cloud provider is GDPR compliant.
- D. No, because the cloud provider is not certified to host government data.

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:**QUESTION 166**

What is the **MAIN** purpose for writing planned procedures in the design of Business Continuity Plans (BCP)?

- A. Establish lines of responsibility.
- B. Minimize the risk of failure.
- C. Accelerate the recovery process.
- D. Eliminate unnecessary decision making.

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:**QUESTION 167**

Why might a network administrator choose distributed virtual switches instead of stand-alone switches for network segmentation?

- A. To standardize on a single vendor
- B. To ensure isolation of management traffic
- C. To maximize data plane efficiency

D. To reduce the risk of configuration errors

Correct Answer: C

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 168

Which of the following is the **BEST** reason to apply patches manually instead of automated patch management?

- A. The cost required to install patches will be reduced.
- B. The time during which systems will remain vulnerable to an exploit will be decreased.
- C. The target systems reside within isolated networks.
- D. The ability to cover large geographic areas is increased.

Correct Answer: C

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 169

When should the software Quality Assurance (QA) team feel confident that testing is complete?

- A. When release criteria are met
- B. When the time allocated for testing the software is met
- C. When senior management approves the test results
- D. When the software has zero security vulnerabilities

Correct Answer: C

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 170

A system administration office desires to implement the following rules:

- An administrator that is designated as a skill level 3, with 5 years of experience, is allowed to perform system backups, upgrades, and local administration.
- An administrator that is designated as a skill level 5, with 10 years of experience, is permitted to perform all actions related to system administration.

Which of the following access control methods **MUST** be implemented to achieve this goal?

- A. Discretionary Access Control (DAC)
- B. Role Based Access Control (RBAC)
- C. Mandatory Access Control (MAC)
- D. Attribute Based Access Control (ABAC)

Correct Answer: B

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 171

Which of the following **MUST** a security policy include to be effective within an organization?

- A. A list of all standards that apply to the policy
- B. Owner information and date of last revision
- C. Disciplinary measures for non-compliance
- D. Strong statements that clearly define the problem

Correct Answer: B

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 172

What is the **MOST** efficient way to verify the integrity of database backups?

- A. Test restores on a regular basis.
- B. Restore every file in the system to check its health.

- C. Use checksum as part of the backup operation to make sure that no corruption has occurred.
- D. Run DBCC CHECKDB on a regular basis to check the logical and physical integrity of the database objects.

Correct Answer: C

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 173

What information will **BEST** assist security and financial analysts in determining if a security control is cost effective to mitigate a vulnerability?

- A. Annualized Loss Expectancy (ALE) and the cost of the control
- B. Single Loss Expectancy (SLE) and the cost of the control
- C. Annual Rate of Occurrence (ARO) and the cost of the control
- D. Exposure Factor (EF) and the cost of the control

Correct Answer: D

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 174

Which of the following are the **FIRST** two steps to securing employees from threats involving workplace violence and acts of terrorism?

- A. Physical barriers impeding unauthorized access and security guards at each entrance
- B. Physical barriers and the ability to identify people as they enter the workplace
- C. Security guards and metal detectors posted at each entrance
- D. Metal detectors and the ability to identify people as they enter the workplace

Correct Answer: C

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 175

How can an attacker exploit a stack overflow to execute arbitrary code?

- A. Modify a function's return address.
- B. Move the stack pointer
- C. Substitute elements in the stack.
- D. Alter the address of the stack.

Correct Answer: A

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 176

A security team member was selected as a member of a Change Control Board (CCB) for an organization. Which of the following is one of their responsibilities?

- A. Approving or disapproving the change
- B. Determining the impact of the change
- C. Carrying out the requested change
- D. Logging the change

Correct Answer: B

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 177

Which action is **MOST** effective for controlling risk and minimizing maintenance costs in the software supply chain?

- A. Selecting redundant suppliers
- B. Selecting suppliers based on business requirements
- C. Selecting fewer, more reliable suppliers
- D. Selecting software suppliers with the fewest known vulnerabilities

Correct Answer: D

Section: Mixed questions

Explanation

Explanation/Reference:

QUESTION 178

A group of organizations follows the same access standards and practices. One manages the verification and due diligence processes for the others. For a user to access a resource from one of the organizations, a check is made to see if that user has been certified. Which Federated Identity Management (FIM) process is this an example of?

- A. One-time authentication
- B. Web based access management
- C. Cross-certification model
- D. Bridge model

Correct Answer: B

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 179

The process of “salting” a password is designed to increase the difficulty of cracking which of the following?

- A. Specific password
- B. Password hash function
- C. Password algorithm
- D. Maximum password length

Correct Answer: B

Section: Mixed questions **Explanation**

Explanation/Reference:

Reference: <https://auth0.com/blog/adding-salt-to-hashing-a-better-way-to-store-passwords/>

QUESTION 180

Which of the following benefits does Role Based Access Control (RBAC) provide for the access review process?

- A. Lowers the amount of access requests after review
- B. Gives more control into the revocation phase
- C. Gives more fine-grained access analysis to accesses
- D. Lowers the number of items to be reviewed

Correct Answer: C

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 181

Which of the following is the **BEST** type of authentication and encryption for a Secure Shell (SSH) implementation when network traffic traverses between a host and an infrastructure device?

- A. Lightweight Directory Access Protocol (LDAP)
- B. Public-key cryptography
- C. Remote Authentication Dial-In User Service (RADIUS)
- D. Private-key cryptography

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:

Reference: [https://books.google.com.pk/books?id=4K7LCgAAQBAJ&pg=PA284&lpg=PA284&dq=type+of+authentication+and+encryption+for+a+Secure+Shell+\(SSH\)+implementation+when+network+traffic+traverses+between+a+host+and+an+infrastructure+device&source=bl&ots=YEMNN8nfuN&sig=ACfU3U2QMbLySWQ_0Vs-GjsSJmaHZ_O9lw&hl=en&sa=X&ved=2ahUKEwjDobCajgrpAhWMHRQKHW2FC4gQ6AEwAHoECBQQAQ#v=onepage&q=type%20of%20authentication%20and%20encryption%20for%20a%20Secure%20Shell%20\(SSH\)%20implementation%20when%20network%20traffic%20traverses%20between%20a%20host%20and%20an%20infrastructure%20device&f=false](https://books.google.com.pk/books?id=4K7LCgAAQBAJ&pg=PA284&lpg=PA284&dq=type+of+authentication+and+encryption+for+a+Secure+Shell+(SSH)+implementation+when+network+traffic+traverses+between+a+host+and+an+infrastructure+device&source=bl&ots=YEMNN8nfuN&sig=ACfU3U2QMbLySWQ_0Vs-GjsSJmaHZ_O9lw&hl=en&sa=X&ved=2ahUKEwjDobCajgrpAhWMHRQKHW2FC4gQ6AEwAHoECBQQAQ#v=onepage&q=type%20of%20authentication%20and%20encryption%20for%20a%20Secure%20Shell%20(SSH)%20implementation%20when%20network%20traffic%20traverses%20between%20a%20host%20and%20an%20infrastructure%20device&f=false)

QUESTION 182

Which of the following is the **FIRST** thing to consider when reviewing Information Technology (IT) internal controls?

- A. The risk culture of the organization
- B. The impact of the control
- C. The nature of the risk
- D. The cost of the control

Correct Answer: B

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 183

Which layer of the Open System Interconnection (OSI) model is reliant on other layers and is concerned with the structure, interpretation and handling of information?

- A. Presentation Layer
- B. Session Layer
- C. Application Layer
- D. Transport Layer

Correct Answer: D

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 184

Which concept might require users to use a second access token or to re-enter passwords to gain elevated access rights in the identity and access provisioning life cycle?

- A. Time-based
- B. Enrollment
- C. Least privilege
- D. Access review

Correct Answer: B

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 185

Why are mobile devices sometimes difficult to investigate in a forensic examination?

- A. There are no forensics tools available for examination.
- B. They may contain cryptographic protection.
- C. They have password-based security at logon.
- D. They may have proprietary software installed to protect them.

Correct Answer: D

Section: Mixed questions **Explanation**

Explanation/Reference:

QUESTION 186

Security categorization of a new system takes place during which phase of the Systems Development Life Cycle (SDLC)?

- A. System implementation
- B. System initiation
- C. System operations and maintenance
- D. System acquisition and development

Correct Answer: D

Section: Mixed questions Explanation

Explanation/Reference:

QUESTION 187

What is the motivation for use of the Online Certificate Status Protocol (OCSP)?

- A. To return information on multiple certificates
- B. To control access to Certificate Revocation List (CRL) requests
- C. To provide timely up-to-date responses to certificate queries
- D. To issue X.509v3 certificates more quickly

Correct Answer: D

Section: Mixed questions Explanation

Explanation/Reference:

Reference: https://en.wikipedia.org/wiki/Online_Certificate_Status_Protocol



<https://vceplus.com/>