

Exam	ISC2 CISSP Exam
Title	Certified Information Systems Security Professional Exam
Product Type	653 Q&A with explanations

Product Questions: 653

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

Answer: B

Question: 2

Which of the following actions will reduce risk to a laptop before traveling to a high risk area?

- A. Examine the device for physical tampering
- B. Implement more stringent baseline configurations
- C. Purge or re-image the hard disk drive
- D. Change access codes

Answer: D

Question: 3

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

Answer: C

Question: 4

What is the MOST important consideration from a data security perspective when an organization plans to relocate?

- A. Ensure the fire prevention and detection systems are sufficient to protect personnel
- B. Review the architectural plans to determine how many emergency exits are present
- C. Conduct a gap analysis of a new facilities against existing security requirements
- D. Revise the Disaster Recovery and Business Continuity (DR/BC) plan

Answer: C

Question: 5

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

Answer: C

Question: 6

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

Answer: A

Question: 7

Which of the following types of technologies would be the MOST cost-effective method to provide a reactive control for protecting personnel in public areas?

- A. Install mantraps at the building entrances
- B. Enclose the personnel entry area with polycarbonate plastic
- C. Supply a duress alarm for personnel exposed to the public
- D. Hire a guard to protect the public area

Answer: D

Question: 8

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

Answer: C

Question: 9

Intellectual property rights are PRIMARY concerned with which of the following?

- A. Owner's ability to realize financial gain
- B. Owner's ability to maintain copyright
- C. Right of the owner to enjoy their creation
- D. Right of the owner to control delivery method

Answer: D

Question: 10

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

Answer: B

Question: 11

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

Answer: D

Question: 12

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

Answer: C

Question: 13

An organization has doubled in size due to a rapid market share increase. The size of the Information Technology (IT) staff has maintained pace with this growth. The organization hires several contractors whose onsite time is limited. The IT department has pushed its limits building servers and rolling out workstations and has a backlog of account management requests.

Which contract is BEST in offloading the task from the IT staff?

- A. Platform as a Service (PaaS)
- B. Identity as a Service (IDaaS)
- C. Desktop as a Service (DaaS)
- D. Software as a Service (SaaS)

Answer: B

Question: 14

When implementing a data classification program, why is it important to avoid too much granularity?

- A. The process will require too many resources
- B. It will be difficult to apply to both hardware and software
- C. It will be difficult to assign ownership to the data

D. The process will be perceived as having value

Answer: A

Question: 15

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

Answer: B

Question: 16

Which of the following is an initial consideration when developing an information security management system?

- A. Identify the contractual security obligations that apply to the organizations
- B. Understand the value of the information assets
- C. Identify the level of residual risk that is tolerable to management
- D. Identify relevant legislative and regulatory compliance requirements

Answer: B

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

Answer: C

Question: 18

Which security service is served by the process of encryption plaintext with the sender's private key

and decrypting cipher text with the sender's public key?

- A. Confidentiality
- B. Integrity
- C. Identification
- D. Availability

Answer: A

Question: 19

Which of the following mobile code security models relies only on trust?

- A. Code signing
- B. Class authentication
- C. Sandboxing
- D. Type safety

Answer: A

Question: 20

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

Answer: A

Question: 21

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

Answer: D

Question: 22

Which component of the Security Content Automation Protocol (SCAP) specification contains the data required to estimate the severity of vulnerabilities identified automated vulnerability assessments?

- A. Common Vulnerabilities and Exposures (CVE)
- B. Common Vulnerability Scoring System (CVSS)
- C. Asset Reporting Format (ARF)
- D. Open Vulnerability and Assessment Language (OVAL)

Answer: B

Question: 23

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)

Answer: A

Question: 24

The use of private and public encryption keys is fundamental in the implementation of which of the following?

- A. Diffie-Hellman algorithm
- B. Secure Sockets Layer (SSL)
- C. Advanced Encryption Standard (AES)
- D. Message Digest 5 (MD5)

Answer: A

Question: 25

What is the purpose of an Internet Protocol (IP) spoofing attack?

- A. To send excessive amounts of data to a process, making it unpredictable
- B. To intercept network traffic without authorization

- C.To disguise the destination address from a target's IP filtering devices
- D.To convince a system that it is communicating with a known entity

Answer: D

Question: 26

At what level of the Open System Interconnection (OSI) model is data at rest on a Storage Area Network (SAN) located?

- A.Link layer
- B.Physical layer
- C.Session layer
- D.Application layer

Answer: D

Question: 27

In a Transmission Control Protocol/Internet Protocol (TCP/IP) stack, which layer is responsible for negotiating and establishing a connection with another node?

- A.Transport layer
- B.Application layer
- C.Network layer
- D.Session layer

Answer: A

Question: 28

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)

Answer: B

Question: 29

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

Answer: A

Question: 30

An external attacker has compromised an organization's network security perimeter and installed a sniffer onto an inside computer. Which of the following is the MOST effective layer of security the organization could have implemented to mitigate the attacker's ability to gain further information?

- A. Implement packet filtering on the network firewalls
- B. Install Host Based Intrusion Detection Systems (HIDS)
- C. Require strong authentication for administrators
- D. Implement logical network segmentation at the switches

Answer: D

Question: 31

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

Answer: A

Question: 32

Which of the following is the BEST network defense against unknown types of attacks or stealth attacks in progress?

- A. Intrusion Prevention Systems (IPS)
- B. Intrusion Detection Systems (IDS)
- C. Stateful firewalls

D. Network Behavior Analysis (NBA) tools

Answer: D

Question: 33

Which of the following factors contributes to the weakness of Wired Equivalent Privacy (WEP) protocol?

- A. WEP uses a small range Initialization Vector (IV)
- B. WEP uses Message Digest 5 (MD5)
- C. WEP uses Diffie-Hellman
- D. WEP does not use any Initialization Vector (IV)

Answer: A

Question: 34

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

Answer: C

Question: 35

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

Answer: A

Question: 36

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

Answer: C

Question: 37

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

Answer: B

Question: 38

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

Answer: A

Question: 39

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

Answer: A

Question: 40

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

Answer: A

Question: 41

Which of the following is a PRIMARY benefit of using a formalized security testing report format and structure?

- A. Executive audiences will understand the outcomes of testing and most appropriate next steps for corrective actions to be taken
- B. Technical teams will understand the testing objectives, testing strategies applied, and business risk associated with each vulnerability
- C. Management teams will understand the testing objectives and reputational risk to the organization
- D. Technical and management teams will better understand the testing objectives, results of each test phase, and potential impact levels

Answer: D

Question: 42

Which of the following could cause a Denial of Service (DoS) against an authentication system?

- A. Encryption of audit logs
- B. No archiving of audit logs
- C. Hashing of audit logs
- D. Remote access audit logs

Answer: D

Question: 43

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)

Answer: D

Question: 44

Which of the following types of business continuity tests includes assessment of resilience to internal and external risks without endangering live operations?

- A. Walkthrough
- B. Simulation
- C. Parallel
- D. White box

Answer: B

Question: 45

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

Answer: D

Question: 46

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

Answer: D

Question: 47

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

Answer: B

Question: 48

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

Answer: C

Question: 49

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

Answer: D

Question: 50

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

Answer: D

Question: 51

When is a Business Continuity Plan (BCP) considered to be valid?

- A. When it has been validated by the Business Continuity (BC) manager
- B. When it has been validated by the board of directors
- C. When it has been validated by all threat scenarios
- D. When it has been validated by realistic exercises

Answer: D

Question: 52

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

Answer: D

Question: 53

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

Answer: D

Question: 54

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

Answer: B

Question: 55

What would be the MOST cost effective solution for a Disaster Recovery (DR) site given that the organization's systems cannot be unavailable for more than 24 hours?

- A. Warm site
- B. Hot site
- C. Mirror site
- D. Cold site

Answer: A

Question: 56

A Java program is being developed to read a file from computer A and write it to computer B, using a third computer C. The program is not working as expected. What is the MOST probable security feature of Java preventing the program from operating as intended?

- A. Least privilege
- B. Privilege escalation
- C. Defense in depth
- D. Privilege bracketing

Answer: A

Question: 57

Which of the following is the PRIMARY risk with using open source software in a commercial software construction?

- A. Lack of software documentation

- B. License agreements requiring release of modified code
- C. Expiration of the license agreement
- D. Costs associated with support of the software

Answer: D

Question: 58

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

Answer: C

Question: 59

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

Answer: D

Question: 60

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

Answer: A

Explanation:

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

Question: 61

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

Answer: D

Question: 62

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

Answer: B

Question: 63

Which of the following methods protects Personally Identifiable Information (PII) by use of a full replacement of the data element?

- A. Transparent Database Encryption (TDE)
- B. Column level database encryption
- C. Volume encryption
- D. Data tokenization

Answer: D

Question: 64

Which of the following elements MUST a compliant EU-US Safe Harbor Privacy Policy contain?

- A. An explanation of how long the data subject's collected information will be retained for and how it will be eventually disposed.
- B. An explanation of who can be contacted at the organization collecting the information if corrections are required by the data subject.
- C. An explanation of the regulatory frameworks and compliance standards the information collecting organization adheres to.
- D. An explanation of all the technologies employed by the collecting organization in gathering information on the data subject.

Answer: B

Question: 65

What is the MOST effective countermeasure to a malicious code attack against a mobile system?

- A. Sandbox
- B. Change control
- C. Memory management
- D. Public-Key Infrastructure (PKI)

Answer: A

Question: 66

Which of the following is the BEST mitigation from phishing attacks?

- A. Network activity monitoring
- B. Security awareness training
- C. Corporate policy and procedures
- D. Strong file and directory permissions

Answer: B

Question: 67

Which of the following is a physical security control that protects Automated Teller Machines (ATM) from skimming?

- A. Anti-tampering
- B. Secure card reader
- C. Radio Frequency (RF) scanner
- D. Intrusion Prevention System (IPS)

Answer: A

Question: 68

Which of the following is an essential element of a privileged identity lifecycle management?

- A. Regularly perform account re-validation and approval
- B. Account provisioning based on multi-factor authentication
- C. Frequently review performed activities and request justification
- D. Account information to be provided by supervisor or line manager

Answer: A

Question: 69

Which of the following is ensured when hashing files during chain of custody handling?

- A. Availability
- B. Accountability
- C. Integrity
- D. Non-repudiation

Answer: C

Question: 70

Which Hyper Text Markup Language 5 (HTML5) option presents a security challenge for network data leakage prevention and/or monitoring?

- A. Cross Origin Resource Sharing (CORS)
- B. WebSockets
- C. Document Object Model (DOM) trees
- D. Web Interface Definition Language (IDL)

Answer: B

Question: 71

Which of the following statements is TRUE of black box testing?

- A. Only the functional specifications are known to the test planner.
- B. Only the source code and the design documents are known to the test planner.

- C. Only the source code and functional specifications are known to the test planner.
- D. Only the design documents and the functional specifications are known to the test planner.

Answer: A

Question: 72

A software scanner identifies a region within a binary image having high entropy. What does this MOST likely indicate?

- A. Encryption routines
- B. Random number generator
- C. Obfuscated code
- D. Botnet command and control

Answer: C

Question: 73

Which of the following is a limitation of the Common Vulnerability Scoring System (CVSS) as it relates to conducting code review?

- A. It has normalized severity ratings.
- B. It has many worksheets and practices to implement.
- C. It aims to calculate the risk of published vulnerabilities.
- D. It requires a robust risk management framework to be put in place.

Answer: C

Question: 74

Which of the following is the MOST important consideration when storing and processing Personally Identifiable Information (PII)?

- A. Encrypt and hash all PII to avoid disclosure and tampering.
- B. Store PII for no more than one year.
- C. Avoid storing PII in a Cloud Service Provider.
- D. Adherence to collection limitation laws and regulations.

Answer: D

Question: 75

Which of the following assessment metrics is BEST used to understand a system's vulnerability to potential exploits?

- A. Determining the probability that the system functions safely during any time period
- B. Quantifying the system's available services
- C. Identifying the number of security flaws within the system
- D. Measuring the system's integrity in the presence of failure

Answer: C

Question: 76

Which of the following is an effective method for avoiding magnetic media data remanence?

- A. Degaussing
- B. Encryption
- C. Data Loss Prevention (DLP)
- D. Authentication

Answer: A

Question: 77

Which of the following MUST be part of a contract to support electronic discovery of data stored in a cloud environment?

- A. Integration with organizational directory services for authentication
- B. Tokenization of data
- C. Accommodation of hybrid deployment models
- D. Identification of data location

Answer: D

Question: 78

When transmitting information over public networks, the decision to encrypt it should be based on

- A. the estimated monetary value of the information.
- B. whether there are transient nodes relaying the transmission.
- C. the level of confidentiality of the information.
- D. the volume of the information.

Answer: C

Question: 79

Logical access control programs are MOST effective when they are

- A. approved by external auditors.
- B. combined with security token technology.
- C. maintained by computer security officers.
- D. made part of the operating system.

Answer: D

Question: 80

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

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

Answer: C

Question: 81

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

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

Answer: A

Question: 82

Which one of these risk factors would be the LEAST important consideration in choosing a building site for a new computer facility?

- A. Vulnerability to crime

- B. Adjacent buildings and businesses
- C. Proximity to an airline flight path
- D. Vulnerability to natural disasters

Answer: C

Question: 83

Which one of the following transmission media is MOST effective in preventing data interception?

- A. Microwave
- B. Twisted-pair
- C. Fiber optic
- D. Coaxial cable

Answer: C

Question: 84

Which security action should be taken FIRST when computer personnel are terminated from their jobs?

- A. Remove their computer access
- B. Require them to turn in their badge
- C. Conduct an exit interview
- D. Reduce their physical access level to the facility

Answer: A

Question: 85

A practice that permits the owner of a data object to grant other users access to that object would usually provide

- A. Mandatory Access Control (MAC).
- B. owner-administered control.
- C. owner-dependent access control.
- D. Discretionary Access Control (DAC).

Answer: D

Question: 86

The type of authorized interactions a subject can have with an object is

- A. control.
- B. permission.
- C. procedure.
- D. protocol.

Answer: B

Question: 87

Why MUST a Kerberos server be well protected from unauthorized access?

- A. It contains the keys of all clients.
- B. It always operates at root privilege.
- C. It contains all the tickets for services.
- D. It contains the Internet Protocol (IP) address of all network entities.

Answer: A

Question: 88

Which one of the following effectively obscures network addresses from external exposure when implemented on a firewall or router?

- A. Network Address Translation (NAT)
- B. Application Proxy
- C. Routing Information Protocol (RIP) Version 2
- D. Address Masking

Answer: A

Question: 89

While impersonating an Information Security Officer (ISO), an attacker obtains information from company employees about their User IDs and passwords. Which method of information gathering has the attacker used?

- A. Trusted path
- B. Malicious logic
- C. Social engineering
- D. Passive misuse

Answer: C

Question: 90

Why must all users be positively identified prior to using multi-user computers?

- A. To provide access to system privileges
- B. To provide access to the operating system
- C. To ensure that unauthorized persons cannot access the computers
- D. To ensure that management knows what users are currently logged on

Answer: C

Question: 91

The birthday attack is MOST effective against which one of the following cipher technologies?

- A. Chaining block encryption
- B. Asymmetric cryptography
- C. Cryptographic hash
- D. Streaming cryptography

Answer: C

Question: 92

An advantage of link encryption in a communications network is that it

- A. makes key management and distribution easier.
- B. protects data from start to finish through the entire network.
- C. improves the efficiency of the transmission.
- D. encrypts all information, including headers and routing information.

Answer: D

Question: 93

Which one of the following is the MOST important in designing a biometric access system if it is essential that no one other than authorized individuals are admitted?

- A. False Acceptance Rate (FAR)

- B. False Rejection Rate (FRR)
- C. Crossover Error Rate (CER)
- D. Rejection Error Rate

Answer: A

Question: 94

What is the term commonly used to refer to a technique of authenticating one machine to another by forging packets from a trusted source?

- A. Man-in-the-Middle (MITM) attack
- B. Smurfing
- C. Session redirect
- D. Spoofing

Answer: D

Question: 95

The PRIMARY purpose of a security awareness program is to

- A. ensure that everyone understands the organization's policies and procedures.
- B. communicate that access to information will be granted on a need-to-know basis.
- C. warn all users that access to all systems will be monitored on a daily basis.
- D. comply with regulations related to data and information protection.

Answer: A

Question: 96

As one component of a physical security system, an Electronic Access Control (EAC) token is BEST known for its ability to

- A. overcome the problems of key assignments.
- B. monitor the opening of windows and doors.
- C. trigger alarms when intruders are detected.
- D. lock down a facility during an emergency.

Answer: A

Question: 97

Which one of the following is a fundamental objective in handling an incident?

- A. To restore control of the affected systems
- B. To confiscate the suspect's computers
- C. To prosecute the attacker
- D. To perform full backups of the system

Answer: A

Question: 98

In the area of disaster planning and recovery, what strategy entails the presentation of information about the plan?

- A. Communication
- B. Planning
- C. Recovery
- D. Escalation

Answer: A

Question: 99

The process of mutual authentication involves a computer system authenticating a user and authenticating the

- A. user to the audit process.
- B. computer system to the user.
- C. user's access to all authorized objects.
- D. computer system to the audit process.

Answer: B

Question: 100

What maintenance activity is responsible for defining, implementing, and testing updates to application systems?

- A. Program change control
- B. Regression testing
- C. Export exception control
- D. User acceptance testing

Answer: A

Question: 101

Which one of the following describes granularity?

- A. Maximum number of entries available in an Access Control List (ACL)
- B. Fineness to which a trusted system can authenticate users
- C. Number of violations divided by the number of total accesses
- D. Fineness to which an access control system can be adjusted

Answer: D

Question: 102

In a basic SYN flood attack, what is the attacker attempting to achieve?

- A. Exceed the threshold limit of the connection queue for a given service
- B. Set the threshold to zero for a given service
- C. Cause the buffer to overflow, allowing root access
- D. Flush the register stack, allowing hijacking of the root account

Answer: A

Question: 103

The FIRST step in building a firewall is to

- A. assign the roles and responsibilities of the firewall administrators.
- B. define the intended audience who will read the firewall policy.
- C. identify mechanisms to encourage compliance with the policy.
- D. perform a risk analysis to identify issues to be addressed.

Answer: D

Question: 104

A system has been scanned for vulnerabilities and has been found to contain a number of communication ports that have been opened without authority. To which of the following might this system have been subjected?

- A. Trojan horse
- B. Denial of Service (DoS)
- C. Spoofing
- D. Man-in-the-Middle (MITM)

Answer: A

Question: 105

Which type of control recognizes that a transaction amount is excessive in accordance with corporate policy?

- A. Detection
- B. Prevention
- C. Investigation
- D. Correction

Answer: A

Question: 106

Which of the following defines the key exchange for Internet Protocol Security (IPSec)?

- A. Secure Sockets Layer (SSL) key exchange
- B. Internet Key Exchange (IKE)
- C. Security Key Exchange (SKE)
- D. Internet Control Message Protocol (ICMP)

Answer: B

Question: 107

The overall goal of a penetration test is to determine a system's

- A. ability to withstand an attack.
- B. capacity management.
- C. error recovery capabilities.
- D. reliability under stress.

Answer: A

Question: 108

When constructing an Information Protection Policy (IPP), it is important that the stated rules are necessary, adequate, and

- A. flexible.
- B. confidential.
- C. focused.
- D. achievable.

Answer: D

Question: 109

Which one of the following affects the classification of data?

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

Answer: A

Question: 110

Which of the following is a security limitation of File Transfer Protocol (FTP)?

- A. Passive FTP is not compatible with web browsers.
- B. Anonymous access is allowed.
- C. FTP uses Transmission Control Protocol (TCP) ports 20 and 21.
- D. Authentication is not encrypted.

Answer: D

Question: 111

In Business Continuity Planning (BCP), what is the importance of documenting business processes?

- A. Provides senior management with decision-making tools
- B. Establishes and adopts ongoing testing and maintenance strategies
- C. Defines who will perform which functions during a disaster or emergency
- D. Provides an understanding of the organization's interdependencies

Answer: D

Question: 112

The Structured Query Language (SQL) implements Discretionary Access Controls (DAC) using

- A. INSERT and DELETE.
- B. GRANT and REVOKE.
- C. PUBLIC and PRIVATE.
- D. ROLLBACK and TERMINATE.

Answer: B

Question: 113

Which layer of the Open Systems Interconnections (OSI) model implementation adds information concerning the logical connection between the sender and receiver?

- A. Physical
- B. Session
- C. Transport
- D. Data-Link

Answer: C

Question: 114

Which of the following is a network intrusion detection technique?

- A. Statistical anomaly
- B. Perimeter intrusion
- C. Port scanning
- D. Network spoofing

Answer: A

Question: 115

Internet Protocol (IP) source address spoofing is used to defeat

- A. address-based authentication.
- B. Address Resolution Protocol (ARP).
- C. Reverse Address Resolution Protocol (RARP).

D. Transmission Control Protocol (TCP) hijacking.

Answer: A

Question: 116

Which of the following is an authentication protocol in which a new random number is generated uniquely for each login session?

- A. Challenge Handshake Authentication Protocol (CHAP)
- B. Point-to-Point Protocol (PPP)
- C. Extensible Authentication Protocol (EAP)
- D. Password Authentication Protocol (PAP)

Answer: A

Question: 117

What security management control is MOST often broken by collusion?

- A. Job rotation
- B. Separation of duties
- C. Least privilege model
- D. Increased monitoring

Answer: B

Question: 118

An Intrusion Detection System (IDS) is generating alarms that a user account has over 100 failed login attempts per minute. A sniffer is placed on the network, and a variety of passwords for that user are noted. Which of the following is MOST likely occurring?

- A. A dictionary attack
- B. A Denial of Service (DoS) attack
- C. A spoofing attack
- D. A backdoor installation

Answer: A

Question: 119

An engineer in a software company has created a virus creation tool. The tool can generate thousands of polymorphic viruses. The engineer is planning to use the tool in a controlled environment to test the company's next generation virus scanning software. Which would BEST describe the behavior of the engineer and why?

- A. The behavior is ethical because the tool will be used to create a better virus scanner.
- B. The behavior is ethical because any experienced programmer could create such a tool.
- C. The behavior is not ethical because creating any kind of virus is bad.
- D. The behavior is not ethical because such a tool could be leaked on the Internet.

Answer: A

Question: 120

Which of the following Disaster Recovery (DR) sites is the MOST difficult to test?

- A. Hot site
- B. Cold site
- C. Warm site
- D. Mobile site

Answer: B

Question: 121

Which of the following statements is TRUE for point-to-point microwave transmissions?

- A. They are not subject to interception due to encryption.
- B. Interception only depends on signal strength.
- C. They are too highly multiplexed for meaningful interception.
- D. They are subject to interception by an antenna within proximity.

Answer: D

Question: 122

The key benefits of a signed and encrypted e-mail include

- A. confidentiality, authentication, and authorization.
- B. confidentiality, non-repudiation, and authentication.
- C. non-repudiation, authorization, and authentication.
- D. non-repudiation, confidentiality, and authorization.

Answer: B

Question: 123

Copyright provides protection for which of the following?

- A. Ideas expressed in literary works
- B. A particular expression of an idea
- C. New and non-obvious inventions
- D. Discoveries of natural phenomena

Answer: B

Question: 124

Which of the following is TRUE about Disaster Recovery Plan (DRP) testing?

- A. Operational networks are usually shut down during testing.
- B. Testing should continue even if components of the test fail.
- C. The company is fully prepared for a disaster if all tests pass.
- D. Testing should not be done until the entire disaster plan can be tested.

Answer: B

Question: 125

Which of the following is the FIRST step of a penetration test plan?

- A. Analyzing a network diagram of the target network
- B. Notifying the company's customers
- C. Obtaining the approval of the company's management
- D. Scheduling the penetration test during a period of least impact

Answer: C

Question: 126

Which of the following actions should be performed when implementing a change to a database schema in a production system?

- A. Test in development, determine dates, notify users, and implement in production
- B. Apply change to production, run in parallel, finalize change in production, and develop a back-out

strategy

C. Perform user acceptance testing in production, have users sign off, and finalize change

D. Change in development, perform user acceptance testing, develop a back-out strategy, and implement change

Answer: D

Question: 127

Which of the following is a method used to prevent Structured Query Language (SQL) injection attacks?

A. Data compression

B. Data classification

C. Data warehousing

D. Data validation

Answer: D

Question: 128

The BEST method of demonstrating a company's security level to potential customers is

A. a report from an external auditor.

B. responding to a customer's security questionnaire.

C. a formal report from an internal auditor.

D. a site visit by a customer's security team.

Answer: A

Question: 129

Which of the following does Temporal Key Integrity Protocol (TKIP) support?

A. Multicast and broadcast messages

B. Coordination of IEEE 802.11 protocols

C. Wired Equivalent Privacy (WEP) systems

D. Synchronization of multiple devices

Answer: C

Question: 130

The stringency of an Information Technology (IT) security assessment will be determined by the

- A. system's past security record.
- B. size of the system's database.
- C. sensitivity of the system's data.
- D. age of the system.

Answer: C

Question: 131

What should be the INITIAL response to Intrusion Detection System/Intrusion Prevention System (IDS/IPS) alerts?

- A. Ensure that the Incident Response Plan is available and current.
- B. Determine the traffic's initial source and block the appropriate port.
- C. Disable or disconnect suspected target and source systems.
- D. Verify the threat and determine the scope of the attack.

Answer: D

Question: 132

At a MINIMUM, a formal review of any Disaster Recovery Plan (DRP) should be conducted

- A. monthly.
- B. quarterly.
- C. annually.
- D. bi-annually.

Answer: C

Question: 133

Checking routing information on e-mail to determine it is in a valid format and contains valid information is an example of which of the following anti-spam approaches?

- A. Simple Mail Transfer Protocol (SMTP) blacklist
- B. Reverse Domain Name System (DNS) lookup
- C. Hashing algorithm
- D. Header analysis

Answer: D

Question: 134

During an audit of system management, auditors find that the system administrator has not been trained. What actions need to be taken at once to ensure the integrity of systems?

- A. A review of hiring policies and methods of verification of new employees
- B. A review of all departmental procedures
- C. A review of all training procedures to be undertaken
- D. A review of all systems by an experienced administrator

Answer: D

Question: 135

An internal Service Level Agreement (SLA) covering security is signed by senior managers and is in place. When should compliance to the SLA be reviewed to ensure that a good security posture is being delivered?

- A. As part of the SLA renewal process
- B. Prior to a planned security audit
- C. Immediately after a security breach
- D. At regularly scheduled meetings

Answer: D

Question: 136

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

Answer: B

Question: 137

Which of the following is the best practice for testing a Business Continuity Plan (BCP)?

- A. Test before the IT Audit
- B. Test when environment changes
- C. Test after installation of security patches
- D. Test after implementation of system patches

Answer: B

Question: 138

Which of the following MUST be done when promoting a security awareness program to senior management?

- A. Show the need for security; identify the message and the audience
- B. Ensure that the security presentation is designed to be all-inclusive
- C. Notify them that their compliance is mandatory
- D. Explain how hackers have enhanced information security

Answer: A

Question: 139

Which of the following is a security feature of Global Systems for Mobile Communications (GSM)?

- A. It uses a Subscriber Identity Module (SIM) for authentication.
- B. It uses encrypting techniques for all communications.
- C. The radio spectrum is divided with multiple frequency carriers.
- D. The signal is difficult to read as it provides end-to-end encryption.

Answer: A

Question: 140

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

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

Answer: B

Question: 141

A disadvantage of an application filtering firewall is that it can lead to

- A. a crash of the network as a result of user activities.
- B. performance degradation due to the rules applied.
- C. loss of packets on the network due to insufficient bandwidth.
- D. Internet Protocol (IP) spoofing by hackers.

Answer: B

Question: 142

What is the MOST important purpose of testing the Disaster Recovery Plan (DRP)?

- A. Evaluating the efficiency of the plan
- B. Identifying the benchmark required for restoration
- C. Validating the effectiveness of the plan
- D. Determining the Recovery Time Objective (RTO)

Answer: C

Question: 143

Following the completion of a network security assessment, which of the following can BEST be demonstrated?

- A. The effectiveness of controls can be accurately measured
- B. A penetration test of the network will fail
- C. The network is compliant to industry standards
- D. All unpatched vulnerabilities have been identified

Answer: A

Question: 144

Passive Infrared Sensors (PIR) used in a non-climate controlled environment should

- A. reduce the detected object temperature in relation to the background temperature.
- B. increase the detected object temperature in relation to the background temperature.
- C. automatically compensate for variance in background temperature.
- D. detect objects of a specific temperature independent of the background temperature.

Answer: C

Question: 145

The use of strong authentication, the encryption of Personally Identifiable Information (PII) on database servers, application security reviews, and the encryption of data transmitted across networks provide

- A. data integrity.
- B. defense in depth.
- C. data availability.
- D. non-repudiation.

Answer: B

Question: 146

An organization is selecting a service provider to assist in the consolidation of multiple computing sites including development, implementation and ongoing support of various computer systems. Which of the following MUST be verified by the Information Security Department?

- A. The service provider's policies are consistent with ISO/IEC27001 and there is evidence that the service provider is following those policies.
- B. The service provider will segregate the data within its systems and ensure that each region's policies are met.
- C. The service provider will impose controls and protections that meet or exceed the current systems controls and produce audit logs as verification.
- D. The service provider's policies can meet the requirements imposed by the new environment even if they differ from the organization's current policies.

Answer: D

Question: 147

Which of the following is an appropriate source for test data?

- A. Production data that is secured and maintained only in the production environment.
- B. Test data that has no similarities to production data.
- C. Test data that is mirrored and kept up-to-date with production data.
- D. Production data that has been sanitized before loading into a test environment.

Answer: D

Question: 148

What is the FIRST step in developing a security test and its evaluation?

- A. Determine testing methods
- B. Develop testing procedures
- C. Identify all applicable security requirements
- D. Identify people, processes, and products not in compliance

Answer: C

Question: 149

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

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

Answer: C

Question: 150

How can a forensic specialist exclude from examination a large percentage of operating system files residing on a copy of the target system?

- A. Take another backup of the media in question then delete all irrelevant operating system files.
- B. Create a comparison database of cryptographic hashes of the files from a system with the same operating system and patch level.
- C. Generate a message digest (MD) or secure hash on the drive image to detect tampering of the media being examined.
- D. Discard harmless files for the operating system, and known installed programs.

Answer: B

Question: 151

Which one of the following is a threat related to the use of web-based client side input validation?

- A. Users would be able to alter the input after validation has occurred

- B. The web server would not be able to validate the input after transmission
- C. The client system could receive invalid input from the web server
- D. The web server would not be able to receive invalid input from the client

Answer: A

Question: 152

To prevent inadvertent disclosure of restricted information, which of the following would be the LEAST effective process for eliminating data prior to the media being discarded?

- A. Multiple-pass overwriting
- B. Degaussing
- C. High-level formatting
- D. Physical destruction

Answer: C

Question: 153

Multi-threaded applications are more at risk than single-threaded applications to

- A. race conditions.
- B. virus infection.
- C. packet sniffing.
- D. database injection.

Answer: A

Question: 154

Which of the following is a potential risk when a program runs in privileged mode?

- A. It may serve to create unnecessary code complexity
- B. It may not enforce job separation duties
- C. It may create unnecessary application hardening
- D. It may allow malicious code to be inserted

Answer: D

Question: 155

The goal of software assurance in application development is to

- A. enable the development of High Availability (HA) systems.
- B. facilitate the creation of Trusted Computing Base (TCB) systems.
- C. prevent the creation of vulnerable applications.
- D. encourage the development of open source applications.

Answer: C

Question: 156

What is the ultimate objective of information classification?

- A. To assign responsibility for mitigating the risk to vulnerable systems
- B. To ensure that information assets receive an appropriate level of protection
- C. To recognize that the value of any item of information may change over time
- D. To recognize the optimal number of classification categories and the benefits to be gained from their use

Answer: B

Question: 157

In a financial institution, who has the responsibility for assigning the classification to a piece of information?

- A. Chief Financial Officer (CFO)
- B. Chief Information Security Officer (CISO)
- C. Originator or nominated owner of the information
- D. Department head responsible for ensuring the protection of the information

Answer: C

Question: 158

An organization is designing a large enterprise-wide document repository system. They plan to have several different classification level areas with increasing levels of controls. The BEST way to ensure document confidentiality in the repository is to

- A. encrypt the contents of the repository and document any exceptions to that requirement.
- B. utilize Intrusion Detection System (IDS) set drop connections if too many requests for documents are detected.
- C. keep individuals with access to high security areas from saving those documents into lower

security areas.

D.require individuals with access to the system to sign Non-Disclosure Agreements (NDA).

Answer: C

Question: 159

What technique BEST describes antivirus software that detects viruses by watching anomalous behavior?

- A. Signature
- B. Inference
- C. Induction
- D. Heuristic

Answer: D

Question: 160

Contingency plan exercises are intended to do which of the following?

- A. Train personnel in roles and responsibilities
- B. Validate service level agreements
- C. Train maintenance personnel
- D. Validate operation metrics

Answer: A

Question: 161

Two companies wish to share electronic inventory and purchase orders in a supplier and client relationship. What is the BEST security solution for them?

- A. Write a Service Level Agreement (SLA) for the two companies.
- B. Set up a Virtual Private Network (VPN) between the two companies.
- C. Configure a firewall at the perimeter of each of the two companies.
- D. Establish a File Transfer Protocol (FTP) connection between the two companies.

Answer: B

Question: 162

Including a Trusted Platform Module (TPM) in the design of a computer system is an example of a technique to what?

- A. Interface with the Public Key Infrastructure (PKI)
- B. Improve the quality of security software
- C. Prevent Denial of Service (DoS) attacks
- D. Establish a secure initial state

Answer: D

Question: 163

Which of the following would be the FIRST step to take when implementing a patch management program?

- A. Perform automatic deployment of patches.
- B. Monitor for vulnerabilities and threats.
- C. Prioritize vulnerability remediation.
- D. Create a system inventory.

Answer: D

Question: 164

When designing a networked Information System (IS) where there will be several different types of individual access, what is the FIRST step that should be taken to ensure all access control requirements are addressed?

- A. Create a user profile.
- B. Create a user access matrix.
- C. Develop an Access Control List (ACL).
- D. Develop a Role Based Access Control (RBAC) list.

Answer: B

Question: 165

Which of the following is the BEST way to verify the integrity of a software patch?

- A. Cryptographic checksums
- B. Version numbering
- C. Automatic updates
- D. Vendor assurance

Answer: A

Question: 166

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

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

Answer: B

Question: 167

Alternate encoding such as hexadecimal representations is MOST often observed in which of the following forms of attack?

- A. Smurf
- B. Rootkit exploit
- C. Denial of Service (DoS)
- D. Cross site scripting (XSS)

Answer: D

Question: 168

What would be the PRIMARY concern when designing and coordinating a security assessment for an Automatic Teller Machine (ATM) system?

- A. Physical access to the electronic hardware
- B. Regularly scheduled maintenance process
- C. Availability of the network connection
- D. Processing delays

Answer: A

Question: 169

The Hardware Abstraction Layer (HAL) is implemented in the

- A. system software.
- B. system hardware.
- C. application software.
- D. network hardware.

Answer: A

Question: 170

A security professional has just completed their organization's Business Impact Analysis (BIA). Following Business Continuity Plan/Disaster Recovery Plan (BCP/DRP) best practices, what would be the professional's NEXT step?

- A. Identify and select recovery strategies.
- B. Present the findings to management for funding.
- C. Select members for the organization's recovery teams.
- D. Prepare a plan to test the organization's ability to recover its operations.

Answer: A

Question: 171

A vulnerability test on an Information System (IS) is conducted to

- A. exploit security weaknesses in the IS.
- B. measure system performance on systems with weak security controls.
- C. evaluate the effectiveness of security controls.
- D. prepare for Disaster Recovery (DR) planning.

Answer: C

Question: 172

Who must approve modifications to an organization's production infrastructure configuration?

- A. Technical management
- B. Change control board
- C. System operations
- D. System users

Answer: B

Question: 173

When implementing controls in a heterogeneous end-point network for an organization, it is critical that

- A. hosts are able to establish network communications.
- B. users can make modifications to their security software configurations.
- C. common software security components be implemented across all hosts.
- D. firewalls running on each host are fully customizable by the user.

Answer: C

Question: 174

Which of the following is the FIRST action that a system administrator should take when it is revealed during a penetration test that everyone in an organization has unauthorized access to a server holding sensitive data?

- A. Immediately document the finding and report to senior management.
- B. Use system privileges to alter the permissions to secure the server
- C. Continue the testing to its completion and then inform IT management
- D. Terminate the penetration test and pass the finding to the server management team

Answer: A

Question: 175

Which of the following wraps the decryption key of a full disk encryption implementation and ties the hard disk drive to a particular device?

- A. Trusted Platform Module (TPM)
- B. Preboot eXecution Environment (PXE)
- C. Key Distribution Center (KDC)
- D. Simple Key-Management for Internet Protocol (SKIP)

Answer: A

Question: 176

The three PRIMARY requirements for a penetration test are

- A. A defined goal, limited time period, and approval of management
- B. A general objective, unlimited time, and approval of the network administrator

- C. An objective statement, disclosed methodology, and fixed cost
- D. A stated objective, liability waiver, and disclosed methodology

Answer: A

Question: 177

Which of the following is an attacker MOST likely to target to gain privileged access to a system?

- A. Programs that write to system resources
- B. Programs that write to user directories
- C. Log files containing sensitive information
- D. Log files containing system calls

Answer: A

Question: 178

Why is a system's criticality classification important in large organizations?

- A. It provides for proper prioritization and scheduling of security and maintenance tasks.
- B. It reduces critical system support workload and reduces the time required to apply patches.
- C. It allows for clear systems status communications to executive management.
- D. It provides for easier determination of ownership, reducing confusion as to the status of the asset.

Answer: A

Question: 179

By allowing storage communications to run on top of Transmission Control Protocol/Internet Protocol (TCP/IP) with a Storage Area Network (SAN), the

- A. confidentiality of the traffic is protected.
- B. opportunity to sniff network traffic exists.
- C. opportunity for device identity spoofing is eliminated.
- D. storage devices are protected against availability attacks.

Answer: B

Question: 180

In Disaster Recovery (DR) and business continuity training, which BEST describes a functional drill?

- A. A full-scale simulation of an emergency and the subsequent response functions
- B. A specific test by response teams of individual emergency response functions
- C. A functional evacuation of personnel
- D. An activation of the backup site

Answer: B

Question: 181

Which of the following does the Encapsulating Security Payload (ESP) provide?

- A. Authorization and integrity
- B. Availability and integrity
- C. Integrity and confidentiality
- D. Authorization and confidentiality

Answer: C

Question: 182

Which one of the following security mechanisms provides the BEST way to restrict the execution of privileged procedures?

- A. Role Based Access Control (RBAC)
- B. Biometric access control
- C. Federated Identity Management (IdM)
- D. Application hardening

Answer: A

Question: 183

What is an effective practice when returning electronic storage media to third parties for repair?

- A. Ensuring the media is not labeled in any way that indicates the organization's name.
- B. Disassembling the media and removing parts that may contain sensitive data.
- C. Physically breaking parts of the media that may contain sensitive data.
- D. Establishing a contract with the third party regarding the secure handling of the media.

Answer: D

Question: 184

Which of the following BEST represents the principle of open design?

- A. Disassembly, analysis, or reverse engineering will reveal the security functionality of the computer system.
- B. Algorithms must be protected to ensure the security and interoperability of the designed system.
- C. A knowledgeable user should have limited privileges on the system to prevent their ability to compromise security capabilities.
- D. The security of a mechanism should not depend on the secrecy of its design or implementation.

Answer: D

Question: 185

The BEST way to check for good security programming practices, as well as auditing for possible backdoors, is to conduct

- A. log auditing.
- B. code reviews.
- C. impact assessments.
- D. static analysis.

Answer: B

Question: 186

An auditor carrying out a compliance audit requests passwords that are encrypted in the system to verify that the passwords are compliant with policy. Which of the following is the BEST response to the auditor?

- A. Provide the encrypted passwords and analysis tools to the auditor for analysis.
- B. Analyze the encrypted passwords for the auditor and show them the results.
- C. Demonstrate that non-compliant passwords cannot be created in the system.
- D. Demonstrate that non-compliant passwords cannot be encrypted in the system.

Answer: C

Question: 187

When building a data center, site location and construction factors that increase the level of vulnerability to physical threats include

- A. hardened building construction with consideration of seismic factors.
- B. adequate distance from and lack of access to adjacent buildings.
- C. curved roads approaching the data center.
- D. proximity to high crime areas of the city.

Answer: D

Question: 188

An organization allows ping traffic into and out of their network. An attacker has installed a program on the network that uses the payload portion of the ping packet to move data into and out of the network. What type of attack has the organization experienced?

- A. Data leakage
- B. Unfiltered channel
- C. Data emanation
- D. Covert channel

Answer: D

Question: 189

Which of the following can BEST prevent security flaws occurring in outsourced software development?

- A. Contractual requirements for code quality
- B. Licensing, code ownership and intellectual property rights
- C. Certification of the quality and accuracy of the work done
- D. Delivery dates, change management control and budgetary control

Answer: C

Question: 190

Which of the following is the MAIN reason that system re-certification and re-accreditation are needed?

- A. To assist data owners in making future sensitivity and criticality determinations
- B. To assure the software development team that all security issues have been addressed
- C. To verify that security protection remains acceptable to the organizational security policy
- D. To help the security team accept or reject new systems for implementation and production

Answer: C

Question: 191

An external attacker has compromised an organization's network security perimeter and installed a sniffer onto an inside computer. Which of the following is the MOST effective layer of security the organization could have implemented to mitigate the attacker's ability to gain further information?

- A. Implement packet filtering on the network firewalls
- B. Require strong authentication for administrators
- C. Install Host Based Intrusion Detection Systems (HIDS)
- D. Implement logical network segmentation at the switches

Answer: D

Question: 192

A security consultant has been asked to research an organization's legal obligations to protect privacy-related information. What kind of reading material is MOST relevant to this project?

- A. The organization's current security policies concerning privacy issues
- B. Privacy-related regulations enforced by governing bodies applicable to the organization
- C. Privacy best practices published by recognized security standards organizations
- D. Organizational procedures designed to protect privacy information

Answer: B

Question: 193

According to best practice, which of the following groups is the MOST effective in performing an information security compliance audit?

- A. In-house security administrators
- B. In-house Network Team
- C. Disaster Recovery (DR) Team
- D. External consultants

Answer: D

Question: 194

When is security personnel involvement in the Systems Development Life Cycle (SDLC) process MOST beneficial?

- A. Testing phase
- B. Development phase
- C. Requirements definition phase
- D. Operations and maintenance phase

Answer: C

Question: 195

A large bank deploys hardware tokens to all customers that use their online banking system. The token generates and displays a six digit numeric password every 60 seconds. The customers must log into their bank accounts using this numeric password. This is an example of

- A. asynchronous token.
- B. Single Sign-On (SSO) token.
- C. single factor authentication token.
- D. synchronous token.

Answer: D

Question: 196

Which of the following is the BEST reason to review audit logs periodically?

- A. Verify they are operating properly
- B. Monitor employee productivity
- C. Identify anomalies in use patterns
- D. Meet compliance regulations

Answer: C

Question: 197

What is the PRIMARY reason for ethics awareness and related policy implementation?

- A. It affects the workflow of an organization.
- B. It affects the reputation of an organization.
- C. It affects the retention rate of employees.
- D. It affects the morale of the employees.

Answer: B

Question: 198

Which of the following is critical for establishing an initial baseline for software components in the operation and maintenance of applications?

- A. Application monitoring procedures
- B. Configuration control procedures
- C. Security audit procedures
- D. Software patching procedures

Answer: B

Question: 199

Which of the following actions **MUST** be taken if a vulnerability is discovered during the maintenance stage in a System Development Life Cycle (SDLC)?

- A. Make changes following principle and design guidelines.
- B. Stop the application until the vulnerability is fixed.
- C. Report the vulnerability to product owner.
- D. Monitor the application and review code.

Answer: C

Question: 200

Which of the following provides effective management assurance for a Wireless Local Area Network (WLAN)?

- A. Maintaining an inventory of authorized Access Points (AP) and connecting devices
- B. Setting the radio frequency to the minimum range required
- C. Establishing a Virtual Private Network (VPN) tunnel between the WLAN client device and a VPN concentrator
- D. Verifying that all default passwords have been changed

Answer: A

Question: 201

From a security perspective, which of the following is a best practice to configure a Domain Name Service (DNS) system?

- A. Configure secondary servers to use the primary server as a zone forwarder.
- B. Block all Transmission Control Protocol (TCP) connections.
- C. Disable all recursive queries on the name servers.
- D. Limit zone transfers to authorized devices.

Answer: D

Question: 202

Which of the following is the MOST beneficial to review when performing an IT audit?

- A. Audit policy
- B. Security log
- C. Security policies
- D. Configuration settings

Answer: C

Question: 203

During an investigation of database theft from an organization's web site, it was determined that the Structured Query Language (SQL) injection technique was used despite input validation with client- side scripting. Which of the following provides the GREATEST protection against the same attack occurring again?

- A. Encrypt communications between the servers
- B. Encrypt the web server traffic
- C. Implement server-side filtering
- D. Filter outgoing traffic at the perimeter firewall

Answer: C

Question: 204

With data labeling, which of the following MUST be the key decision maker?

- A. Information security
- B. Departmental management
- C. Data custodian
- D. Data owner

Answer: D

Question: 205

Which of the following is a critical factor for implementing a successful data classification program?

- A. Executive sponsorship
- B. Information security sponsorship
- C. End-user acceptance
- D. Internal audit acceptance

Answer: A

Question: 206

An organization's data policy MUST include a data retention period which is based on

- A. application dismissal.
- B. business procedures.
- C. digital certificates expiration.
- D. regulatory compliance.

Answer: D

Question: 207

What is the MOST important reason to configure unique user IDs?

- A. Supporting accountability
- B. Reducing authentication errors
- C. Preventing password compromise
- D. Supporting Single Sign On (SSO)

Answer: A

Question: 208

What is the PRIMARY advantage of using automated application security testing tools?

- A. The application can be protected in the production environment.
- B. Large amounts of code can be tested using fewer resources.
- C. The application will fail less when tested using these tools.
- D. Detailed testing of code functions can be performed.

Answer: B

Question: 209

When using third-party software developers, which of the following is the MOST effective method of providing software development Quality Assurance (QA)?

- A. Retain intellectual property rights through contractual wording.
- B. Perform overlapping code reviews by both parties.
- C. Verify that the contractors attend development planning meetings.
- D. Create a separate contractor development environment.

Answer: B

Question: 210

What do Capability Maturity Models (CMM) serve as a benchmark for in an organization?

- A. Experience in the industry
- B. Definition of security profiles
- C. Human resource planning efforts
- D. Procedures in systems development

Answer: D

Question: 211

Which of the following is the MOST crucial for a successful audit plan?

- A. Defining the scope of the audit to be performed
- B. Identifying the security controls to be implemented
- C. Working with the system owner on new controls
- D. Acquiring evidence of systems that are not compliant

Answer: A

Question: 212

An organization decides to implement a partial Public Key Infrastructure (PKI) with only the servers having digital certificates. What is the security benefit of this implementation?

- A. Clients can authenticate themselves to the servers.

- B. Mutual authentication is available between the clients and servers.
- C. Servers are able to issue digital certificates to the client.
- D. Servers can authenticate themselves to the client.

Answer: D

Question: 213

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

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

Answer: B

Question: 214

If an attacker in a SYN flood attack uses someone else's valid host address as the source address, the system under attack will send a large number of Synchronize/Acknowledge (SYN/ACK) packets to the

- A. default gateway.
- B. attacker's address.
- C. local interface being attacked.
- D. specified source address.

Answer: D

Question: 215

According to best practice, which of the following is required when implementing third party software in a production environment?

- A. Scan the application for vulnerabilities
- B. Contract the vendor for patching
- C. Negotiate end user application training
- D. Escrow a copy of the software

Answer: A

Question: 216

Which of the following is the BEST solution to provide redundancy for telecommunications links?

- A. Provide multiple links from the same telecommunications vendor.
- B. Ensure that the telecommunications links connect to the network in one location.
- C. Ensure that the telecommunications links connect to the network in multiple locations.
- D. Provide multiple links from multiple telecommunications vendors.

Answer: D

Question: 217

The amount of data that will be collected during an audit is PRIMARILY determined by the

- A. audit scope.
- B. auditor's experience level.
- C. availability of the data.
- D. integrity of the data.

Answer: A

Question: 218

Which of the following are required components for implementing software configuration management systems?

- A. Audit control and signoff
- B. User training and acceptance
- C. Rollback and recovery processes
- D. Regression testing and evaluation

Answer: C

Question: 219

For a service provider, which of the following MOST effectively addresses confidentiality concerns for customers using cloud computing?

- A. Hash functions
- B. Data segregation
- C. File system permissions
- D. Non-repudiation controls

Answer: B

Question: 220

Which of the following BEST mitigates a replay attack against a system using identity federation and Security Assertion Markup Language (SAML) implementation?

- A. Two-factor authentication
- B. Digital certificates and hardware tokens
- C. Timed sessions and Secure Socket Layer (SSL)
- D. Passwords with alpha-numeric and special characters

Answer: C

Question: 221

What is the BEST method to detect the most common improper initialization problems in programming languages?

- A. Use and specify a strong character encoding.
- B. Use automated static analysis tools that target this type of weakness.
- C. Perform input validation on any numeric inputs by assuring that they are within the expected range.
- D. Use data flow analysis to minimize the number of false positives.

Answer: B

Question: 222

During the procurement of a new information system, it was determined that some of the security requirements were not addressed in the system specification. Which of the following is the MOST likely reason for this?

- A. The procurement officer lacks technical knowledge.
- B. The security requirements have changed during the procurement process.
- C. There were no security professionals in the vendor's bidding team.
- D. The description of the security requirements was insufficient.

Answer: D

Question: 223

Which of the following is required to determine classification and ownership?

- A. System and data resources are properly identified
- B. Access violations are logged and audited
- C. Data file references are identified and linked
- D. System security controls are fully integrated

Answer: A

Question: 224

A large university needs to enable student access to university resources from their homes. Which of the following provides the BEST option for low maintenance and ease of deployment?

- A. Provide students with Internet Protocol Security (IPSec) Virtual Private Network (VPN) client software.
- B. Use Secure Sockets Layer (SSL) VPN technology.
- C. Use Secure Shell (SSH) with public/private keys.
- D. Require students to purchase home router capable of VPN.

Answer: B

Question: 225

A risk assessment report recommends upgrading all perimeter firewalls to mitigate a particular finding. Which of the following BEST supports this recommendation?

- A. The inherent risk is greater than the residual risk.
- B. The Annualized Loss Expectancy (ALE) approaches zero.
- C. The expected loss from the risk exceeds mitigation costs.
- D. The infrastructure budget can easily cover the upgrade costs.

Answer: C

Question: 226

A system is developed so that its business users can perform business functions but not user administration functions. Application administrators can perform administration functions but not user business functions. These capabilities are BEST described as

- A. least privilege.
- B. rule based access controls.
- C. Mandatory Access Control (MAC).

D. separation of duties.

Answer: D

Question: 227

What is the MOST effective method for gaining unauthorized access to a file protected with a long complex password?

- A. Brute force attack
- B. Frequency analysis
- C. Social engineering
- D. Dictionary attack

Answer: C

Question: 228

A security manager has noticed an inconsistent application of server security controls resulting in vulnerabilities on critical systems. What is the MOST likely cause of this issue?

- A. A lack of baseline standards
- B. Improper documentation of security guidelines
- C. A poorly designed security policy communication program
- D. Host-based Intrusion Prevention System (HIPS) policies are ineffective

Answer: A

Question: 229

Which of the following is the BEST countermeasure to brute force login attacks?

- A. Changing all canonical passwords
- B. Decreasing the number of concurrent user sessions
- C. Restricting initial password delivery only in person
- D. Introducing a delay after failed system access attempts

Answer: D

Question: 230

A Business Continuity Plan (BCP) is based on

- A. the policy and procedures manual.
- B. an existing BCP from a similar organization.
- C. a review of the business processes and procedures.
- D. a standard checklist of required items and objectives.

Answer: C

Question: 231

When implementing a secure wireless network, which of the following supports authentication and authorization for individual client endpoints?

- A. Temporal Key Integrity Protocol (TKIP)
- B. Wi-Fi Protected Access (WPA) Pre-Shared Key (PSK)
- C. Wi-Fi Protected Access 2 (WPA2) Enterprise
- D. Counter Mode with Cipher Block Chaining Message Authentication Code Protocol (CCMP)

Answer: C

Question: 232

A thorough review of an organization's audit logs finds that a disgruntled network administrator has intercepted emails meant for the Chief Executive Officer (CEO) and changed them before forwarding them to their intended recipient. What type of attack has MOST likely occurred?

- A. Spoofing
- B. Eavesdropping
- C. Man-in-the-middle
- D. Denial of service

Answer: C

Question: 233

Which of the following is the MOST effective attack against cryptographic hardware modules?

- A. Plaintext
- B. Brute force
- C. Power analysis
- D. Man-in-the-middle (MITM)

Answer: C

Question: 234

Which of the following is the MOST difficult to enforce when using cloud computing?

- A. Data access
- B. Data backup
- C. Data recovery
- D. Data disposal

Answer: D

Question: 235

Which of the following is the BEST way to determine if a particular system is able to identify malicious software without executing it?

- A. Testing with a Botnet
- B. Testing with an EICAR file
- C. Executing a binary shellcode
- D. Run multiple antivirus programs

Answer: B

Question: 236

Which of the following is a BEST practice when traveling internationally with laptops containing Personally Identifiable Information (PII)?

- A. Use a thumb drive to transfer information from a foreign computer.
- B. Do not take unnecessary information, including sensitive information.
- C. Connect the laptop only to well-known networks like the hotel or public Internet cafes.
- D. Request international points of contact help scan the laptop on arrival to ensure it is protected.

Answer: B

Question: 237

Which of the following assures that rules are followed in an identity management architecture?

- A. Policy database
- B. Digital signature

- C. Policy decision point
- D. Policy enforcement point

Answer: D

Question: 238

Which of the following violates identity and access management best practices?

- A. User accounts
- B. System accounts
- C. Generic accounts
- D. Privileged accounts

Answer: C

Question: 239

When dealing with compliance with the Payment Card Industry-Data Security Standard (PCI-DSS), an organization that shares card holder information with a service provider MUST do which of the following?

- A. Perform a service provider PCI-DSS assessment on a yearly basis.
- B. Validate the service provider's PCI-DSS compliance status on a regular basis.
- C. Validate that the service providers security policies are in alignment with those of the organization.
- D. Ensure that the service provider updates and tests its Disaster Recovery Plan (DRP) on a yearly basis.

Answer: B

Question: 240

What is the MAIN feature that onion routing networks offer?

- A. Non-repudiation
- B. Traceability
- C. Anonymity
- D. Resilience

Answer: C

Question: 241

Which of the following MUST system and database administrators be aware of and apply when configuring systems used for storing personal employee data?

- A. Secondary use of the data by business users
- B. The organization's security policies and standards
- C. The business purpose for which the data is to be used
- D. The overall protection of corporate resources and data

Answer: B

Question: 242

Which of the following methods provides the MOST protection for user credentials?

- A. Forms-based authentication
- B. Digest authentication
- C. Basic authentication
- D. Self-registration

Answer: B

Question: 243

Which of the following MOST influences the design of the organization's electronic monitoring policies?

- A. Workplace privacy laws
- B. Level of organizational trust
- C. Results of background checks
- D. Business ethical considerations

Answer: A

Question: 244

Without proper signal protection, embedded systems may be prone to which type of attack?

- A. Brute force
- B. Tampering
- C. Information disclosure
- D. Denial of Service (DoS)

Answer: C

Question: 245

Which of the following is a detective access control mechanism?

- A. Log review
- B. Least privilege
- C. Password complexity
- D. Non-disclosure agreement

Answer: A

Question: 246

Which of the following BEST describes Recovery Time Objective (RTO)?

- A. Time of data validation after disaster
- B. Time of data restoration from backup after disaster
- C. Time of application resumption after disaster
- D. Time of application verification after disaster

Answer: C

Question: 247

An organization publishes and periodically updates its employee policies in a file on their intranet. Which of the following is a PRIMARY security concern?

- A. Availability
- B. Confidentiality
- C. Integrity
- D. Ownership

Answer: C

Question: 248

An online retail company has formulated a record retention schedule for customer transactions. Which of the following is a valid reason a customer transaction is kept beyond the retention schedule?

- A. Pending legal hold
- B. Long term data mining needs
- C. Customer makes request to retain
- D. Useful for future business initiatives

Answer: A

Question: 249

Which of the following is the MAIN goal of a data retention policy?

- A. Ensure that data is destroyed properly.
- B. Ensure that data recovery can be done on the data.
- C. Ensure the integrity and availability of data for a predetermined amount of time.
- D. Ensure the integrity and confidentiality of data for a predetermined amount of time.

Answer: C

Question: 250

DRAG DROP

Given the various means to protect physical and logical assets, match the access management area to the technology.

Area		Technology
Facilities		Encryption
Devices		Window
Information		Firewall
Systems		Authenticatio

Answer:

	Technology
Information	Encryption
Facilities	Window
Devices	Firewall
Systems	Authenticatio

Question: 251

Which of the following problems is not addressed by using OAuth (Open Standard to Authorization) 2.0 to integrate a third-party identity provider for a service?

- A. Resource Servers are required to use passwords to authenticate end users.
- B. Revocation of access of some users of the third party instead of all the users from the third party.
- C. Compromise of the third party means compromise of all the users in the service.
- D. Guest users need to authenticate with the third party identity provider.

Answer: C

Question: 252

The use of proximity card to gain access to a building is an example of what type of security control?

- A. Legal
- B. Logical
- C. Physical
- D. Procedural

Answer: C

Question: 253

Multi-Factor Authentication (MFA) is necessary in many systems given common types of password attacks. Which of the following is a correct list of password attacks?

- A. Masquerading, salami, malware, polymorphism
- B. Brute force, dictionary, phishing, keylogger
- C. Zeus, netbus, rabbit, turtle
- D. Token, biometrics, IDS, DLP

Answer: B

Question: 254

Which of the following is an example of two-factor authentication?

- A. Retina scan and a palm print
- B. Fingerprint and a smart card
- C. Magnetic stripe card and an ID badge
- D. Password and Completely Automated Public Turing test to tell Computers and Humans Apart (CAPTCHA)

Answer: B

Question: 255

Which item below is a federated identity

- standard? A. 802.11i
B. Kerberos
C. Lightweight Directory Access Protocol (LDAP)
D. Security Assertion Markup Language (SAML)

Answer: D

Question: 256

What is a common challenge when implementing Security Assertion Markup Language (SAML) for identity integration between on-premise environment and an external identity provider service?

- A. Some users are not provisioned into the service.
B. SAML tokens are provided by the on-premise identity provider.
C. Single users cannot be revoked from the service.
D. SAML tokens contain user information.

Answer: A

Question: 257

Refer to the information below to answer the question.

A new employee is given a laptop computer with full administrator access. This employee does not have a personal computer at home and has a child that uses the computer to send and receive e-mail, search the web, and use instant messaging. The organization's Information Technology (IT) department discovers that a peer-to-peer program has been installed on the computer using the employee's access.

Which of the following could have MOST likely prevented the Peer-to-Peer (P2P) program from being installed on the computer?

- A. Removing employee's full access to the computer
B. Supervising their child's use of the computer
C. Limiting computer's access to only the employee
D. Ensuring employee understands their business conduct guidelines

Answer: A

Question: 258

Refer to the information below to answer the question.

A new employee is given a laptop computer with full administrator access. This employee does not have a personal computer at home and has a child that uses the computer to send and receive e- mail, search the web, and use instant messaging. The organization's Information Technology (IT) department discovers that a peer-to-peer program has been installed on the computer using the employee's access.

Which of the following solutions would have MOST likely detected the use of peer-to-peer programs when the computer was connected to the office network?

- A. Anti-virus software
- B. Intrusion Prevention System (IPS)
- C. Anti-spyware software
- D. Integrity checking software

Answer: B

Question: 259

Refer to the information below to answer the question.

A new employee is given a laptop computer with full administrator access. This employee does not have a personal computer at home and has a child that uses the computer to send and receive e- mail, search the web, and use instant messaging. The organization's Information Technology (IT) department discovers that a peer-to-peer program has been installed on the computer using the employee's access.

Which of the following methods is the MOST effective way of removing the Peer-to-Peer (P2P) program from the computer?

- A. Run software uninstall
- B. Re-image the computer
- C. Find and remove all installation files
- D. Delete all cookies stored in the web browser cache

Answer: B

Question: 260

Refer to the information below to answer the question.

A new employee is given a laptop computer with full administrator access. This employee does not have a personal computer at home and has a child that uses the computer to send and receive e- mail, search the web, and use instant messaging. The organization's Information Technology (IT) department discovers that a peer-to-peer program has been installed on the computer using the employee's access.

Which of the following documents explains the proper use of the organization's assets?

- A. Human resources policy
- B. Acceptable use policy
- C. Code of ethics
- D. Access control policy

Answer: B

Question: 261

Refer to the information below to answer the question.

A security practitioner detects client-based attacks on the organization's network. A plan will be necessary to address these concerns.

In the plan, what is the BEST approach to mitigate future internal client-based attacks?

- A. Block all client side web exploits at the perimeter.
- B. Remove all non-essential client-side web services from the network.
- C. Screen for harmful exploits of client-side services before implementation.
- D. Harden the client image before deployment.

Answer: D

Question: 262

Refer to the information below to answer the question.

A security practitioner detects client-based attacks on the organization's network. A plan will be necessary to address these concerns.

In addition to web browsers, what PRIMARY areas need to be addressed concerning mobile code used for malicious purposes?

- A. Text editors, database, and Internet phone applications
- B. Email, presentation, and database applications
- C. Image libraries, presentation and spreadsheet applications
- D. Email, media players, and instant messaging applications

Answer: D

Question: 263

Refer to the information below to answer the question.

A security practitioner detects client-based attacks on the organization's network. A plan will be necessary to address these concerns.

What MUST the plan include in order to reduce client-side exploitation?

- A. Approved web browsers
- B. Network firewall procedures
- C. Proxy configuration
- D. Employee education

Answer: D

Question: 264

Refer to the information below to answer the question.

A security practitioner detects client-based attacks on the organization's network. A plan will be necessary to address these concerns.

What is the BEST reason for the organization to pursue a plan to mitigate client-based attacks?

- A. Client privilege administration is inherently weaker than server privilege administration.
- B. Client hardening and management is easier on clients than on servers.
- C. Client-based attacks are more common and easier to exploit than server and network based attacks.
- D. Client-based attacks have higher financial impact.

Answer: C

Question: 265

Refer to the information below to answer the question.

A large organization uses unique identifiers and requires them at the start of every system session. Application access is based on job classification. The organization is subject to periodic independent reviews of access controls and violations. The organization uses wired and wireless networks and remote access. The organization also uses secure connections to branch offices and secure backup and recovery strategies for selected information and processes.

Which of the following BEST describes the access control methodology used?

- A. Least privilege
- B. Lattice Based Access Control (LBAC)
- C. Role Based Access Control (RBAC)
- D. Lightweight Directory Access Control (LDAP)

Answer: C

Question: 266

Refer to the information below to answer the question.

A large organization uses unique identifiers and requires them at the start of every system session. Application access is based on job classification. The organization is subject to periodic independent reviews of access controls and violations. The organization uses wired and wireless networks and remote access. The organization also uses secure connections to branch offices and secure backup and recovery strategies for selected information and processes.

In addition to authentication at the start of the user session, best practice would require re-authentication

- A. periodically during a session.
- B. for each business process.
- C. at system sign-off.
- D. after a period of inactivity.

Answer: D

Question: 267

Refer to the information below to answer the question.

A large organization uses unique identifiers and requires them at the start of every system session. Application access is based on job classification. The organization is subject to periodic independent reviews of access controls and violations. The organization uses wired and wireless networks and remote access. The organization also uses secure connections to branch offices and secure backup and recovery strategies for selected information and processes.

Following best practice, where should the permitted access for each department and job classification combination be specified?

- A. Security procedures
- B. Security standards
- C. Human resource policy
- D. Human resource standards

Answer: B

Question: 268

Refer to the information below to answer the question.

A large organization uses unique identifiers and requires them at the start of every system session. Application access is based on job classification. The organization is subject to periodic independent reviews of access controls and violations. The organization uses wired and wireless networks and remote access. The organization also uses secure connections to branch offices and secure backup and recovery strategies for selected information and processes.

What **MUST** the access control logs contain in addition to the identifier?

- A. Time of the access

- B. Security classification
- C. Denied access attempts
- D. Associated clearance

Answer: A

Question: 269

Refer to the information below to answer the question.

An organization has hired an information security officer to lead their security department. The officer has adequate people resources but is lacking the other necessary components to have an effective security program. There are numerous initiatives requiring security involvement.

Which of the following is considered the MOST important priority for the information security officer?

- A. Formal acceptance of the security strategy
- B. Disciplinary actions taken against unethical behavior
- C. Development of an awareness program for new employees
- D. Audit of all organization system configurations for faults

Answer: A

Question: 270

Refer to the information below to answer the question.

An organization has hired an information security officer to lead their security department. The officer has adequate people resources but is lacking the other necessary components to have an effective security program. There are numerous initiatives requiring security involvement.

The effectiveness of the security program can PRIMARILY be measured through

- A. audit findings.
- B. risk elimination.
- C. audit requirements.
- D. customer satisfaction.

Answer: A

Question: 271

Refer to the information below to answer the question.

An organization has hired an information security officer to lead their security department. The officer has adequate people resources but is lacking the other necessary components to have an effective security program. There are numerous initiatives requiring security involvement.

Given the number of priorities, which of the following will MOST likely influence the selection of top initiatives?

- A. Severity of risk
- B. Complexity of strategy
- C. Frequency of incidents
- D. Ongoing awareness

Answer: A

Question: 272

Refer to the information below to answer the question.

An organization has hired an information security officer to lead their security department. The officer has adequate people resources but is lacking the other necessary components to have an effective security program. There are numerous initiatives requiring security involvement.

The security program can be considered effective when

- A. vulnerabilities are proactively identified.
- B. audits are regularly performed and reviewed.
- C. backups are regularly performed and validated.
- D. risk is lowered to an acceptable level.

Answer: D

Question: 273

Refer to the information below to answer the question.

During the investigation of a security incident, it is determined that an unauthorized individual accessed a system which hosts a database containing financial information.

Aside from the potential records which may have been viewed, which of the following should be the PRIMARY concern regarding the database information?

- A. Unauthorized database changes
- B. Integrity of security logs
- C. Availability of the database
- D. Confidentiality of the incident

Answer: A

Question: 274

Refer to the information below to answer the question.

During the investigation of a security incident, it is determined that an unauthorized individual accessed a system which hosts a database containing financial information. If it is discovered that large quantities of information have been copied by the unauthorized individual, what attribute of the data has been compromised?

- A. Availability
- B. Integrity
- C. Accountability
- D. Confidentiality

Answer: D

Question: 275

Refer to the information below to answer the question.

During the investigation of a security incident, it is determined that an unauthorized individual accessed a system which hosts a database containing financial information.

If the intrusion causes the system processes to hang, which of the following has been affected?

- A. System integrity
- B. System availability
- C. System confidentiality
- D. System auditability

Answer: B

Question: 276

Refer to the information below to answer the question.

An organization experiencing a negative financial impact is forced to reduce budgets and the number of Information Technology (IT) operations staff performing basic logical access security administration functions. Security processes have been tightly integrated into normal IT operations and are not separate and distinct roles.

Which of the following will be the PRIMARY security concern as staff is released from the organization?

- A. Inadequate IT support
- B. Loss of data and separation of duties
- C. Undocumented security controls
- D. Additional responsibilities for remaining staff

Answer: B

Question: 277

Refer to the information below to answer the question.

An organization experiencing a negative financial impact is forced to reduce budgets and the number of Information Technology (IT) operations staff performing basic logical access security administration functions. Security processes have been tightly integrated into normal IT operations and are not separate and distinct roles.

Which of the following will MOST likely allow the organization to keep risk at an acceptable level?

- A. Increasing the amount of audits performed by third parties
- B. Removing privileged accounts from operational staff
- C. Assigning privileged functions to appropriate staff
- D. Separating the security function into distinct roles

Answer: C

Question: 278

Refer to the information below to answer the question.

An organization experiencing a negative financial impact is forced to reduce budgets and the number of Information Technology (IT) operations staff performing basic logical access security administration functions. Security processes have been tightly integrated into normal IT operations and are not separate and distinct roles.

Which of the following will indicate where the IT budget is BEST allocated during this time?

- A. Policies
- B. Frameworks
- C. Metrics
- D. Guidelines

Answer: C

Question: 279

Refer to the information below to answer the question.

An organization experiencing a negative financial impact is forced to reduce budgets and the number of Information Technology (IT) operations staff performing basic logical access security administration functions. Security processes have been tightly integrated into normal IT operations and are not separate and distinct roles.

When determining appropriate resource allocation, which of the following is MOST important to monitor?

- A. Number of system compromises
- B. Number of audit findings
- C. Number of staff reductions

D.Number of additional assets

Answer: B

Question: 280

Refer to the information below to answer the question.

In a Multilevel Security (MLS) system, the following sensitivity labels are used in increasing levels of sensitivity: restricted, confidential, secret, top secret. Table A lists the clearance levels for four users, while Table B lists the security classes of four different files.

Table A

User	Clearance Level
A	Restricted
B	Confidential
C	Secret
D	Top Secret

Table B

Files	Security Class
1	Restricted
2	Confidential
3	Secret
4	Top Secret

Which of the following is true according to the star property (*property)?

- A. User D can write to File 1
- B. User B can write to File 1
- C. User A can write to File 1
- D. User C can write to File 1

Answer: C

Question: 281

Refer to the information below to answer the question.

In a Multilevel Security (MLS) system, the following sensitivity labels are used in increasing levels of sensitivity: restricted, confidential, secret, top secret. Table A lists the clearance levels for four users, while Table B lists the security classes of four different files.

Table A

User	Clearance Level
A	Restricted
B	Confidential
C	Secret
D	Top Secret

Table B

Files	Security Class
1	Restricted
2	Confidential
3	Secret
4	Top Secret

In a Bell-LaPadula system, which user cannot write to File 3?

- A. User A
- B. User B

- C. User C
- D. User D

Answer: D

Question: 282

Refer to the information below to answer the question.

In a Multilevel Security (MLS) system, the following sensitivity labels are used in increasing levels of sensitivity: restricted, confidential, secret, top secret. Table A lists the clearance levels for four users, while Table B lists the security classes of four different files.

Table A

User	Clearance Level
A	Restricted
B	Confidential
C	Secret
D	Top Secret

Table B

Files	Security Class
1	Restricted
2	Confidential
3	Secret
4	Top Secret

In a Bell-LaPadula system, which user has the MOST restrictions when writing data to any of the four files?

- A. User A
- B. User B
- C. User C
- D. User D

Answer: D

Question: 283

Refer to the information below to answer the question.

Desktop computers in an organization were sanitized for re-use in an equivalent security environment. The data was destroyed in accordance with organizational policy and all marking and other external indications of the sensitivity of the data that was formerly stored on the magnetic drives were removed.

After magnetic drives were degaussed twice according to the product manufacturer's directions, what is the MOST LIKELY security issue with degaussing?

- A. Commercial products often have serious weaknesses of the magnetic force available in the degausser product.
- B. Degausser products may not be properly maintained and operated.
- C. The inability to turn the drive around in the chamber for the second pass due to human error.
- D. Inadequate record keeping when sanitizing media.

Answer: B

Question: 284

Refer to the information below to answer the question.

Desktop computers in an organization were sanitized for re-use in an equivalent security environment. The data was destroyed in accordance with organizational policy and all marking and other external indications of the sensitivity of the data that was formerly stored on the magnetic drives were removed.

Organizational policy requires the deletion of user data from Personal Digital Assistant (PDA) devices before disposal. It may not be possible to delete the user data if the device is malfunctioning. Which destruction method below provides the BEST assurance that the data has been removed?

- A. Knurling
- B. Grinding
- C. Shredding
- D. Degaussing

Answer: C

Question: 285

Refer to the information below to answer the question.

A large, multinational organization has decided to outsource a portion of their Information Technology (IT) organization to a third-party provider's facility. This provider will be responsible for the design, development, testing, and support of several critical, customer-based applications used by the organization.

The third party needs to have

- A. processes that are identical to that of the organization doing the outsourcing.
- B. access to the original personnel that were on staff at the organization.
- C. the ability to maintain all of the applications in languages they are familiar with.
- D. access to the skill sets consistent with the programming languages used by the organization.

Answer: D

Question: 286

Refer to the information below to answer the question.

A large, multinational organization has decided to outsource a portion of their Information Technology (IT) organization to a third-party provider's facility. This provider will be responsible for the design, development, testing, and support of several critical, customer-based applications used by the organization.

The organization should ensure that the third party's physical security controls are in place so that they

- A. are more rigorous than the original controls.
- B. are able to limit access to sensitive information.
- C. allow access by the organization staff at any time.
- D. cannot be accessed by subcontractors of the third party.

Answer: B

Question: 287

Refer to the information below to answer the question.

A large, multinational organization has decided to outsource a portion of their Information Technology (IT) organization to a third-party provider's facility. This provider will be responsible for the design, development, testing, and support of several critical, customer-based applications used by the organization.

What additional considerations are there if the third party is located in a different country?

- A. The organizational structure of the third party and how it may impact timelines within the organization
- B. The ability of the third party to respond to the organization in a timely manner and with accurate information
- C. The effects of transborder data flows and customer expectations regarding the storage or processing of their data
- D. The quantity of data that must be provided to the third party and how it is to be used

Answer: C

Question: 288

What is the MOST critical factor to achieve the goals of a security program?

- A. Capabilities of security resources
- B. Executive management support
- C. Effectiveness of security management
- D. Budget approved for security resources

Answer: B

Question: 289

A business has implemented Payment Card Industry Data Security Standard (PCI-DSS) compliant

handheld credit card processing on their Wireless Local Area Network (WLAN) topology. The network team partitioned the WLAN to create a private segment for credit card processing using a firewall to control device access and route traffic to the card processor on the Internet. What components are in the scope of PCI-DSS?

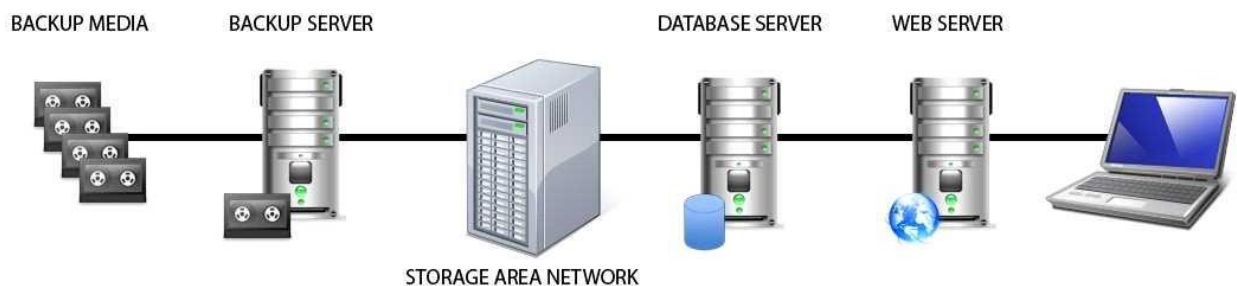
- A. The entire enterprise network infrastructure.
- B. The handheld devices, wireless access points and border gateway.
- C. The end devices, wireless access points, WLAN, switches, management console, and firewall.
- D. The end devices, wireless access points, WLAN, switches, management console, and Internet

Answer: C

Question: 290

HOT SPOT

Identify the component that MOST likely lacks digital accountability related to information access. Click on the correct device in the image below.



Answer:

Backup Media

Explanation:

Reference: Official (ISC)2 Guide to the CISSP CBK, Third Edition page 1029

Question: 291

During an audit, the auditor finds evidence of potentially illegal activity. Which of the following is the MOST appropriate action to take?

- A. Immediately call the police
- B. Work with the client to resolve the issue internally
- C. Advise the person performing the illegal activity to cease and desist
- D. Work with the client to report the activity to the appropriate authority

Answer: D

Question: 292

DRAG DROP

Place the following information classification steps in sequential order.

Steps

Declassify information when appropriate

Apply the appropriate security markings

Conduct periodic classification reviews

Assign a classification level

Document the information assets

Order

Step

Step

Step

Step

Step

Answer:

Document the information assets

Assign a classification level

Apply the appropriate security markings

Conduct periodic classification reviews

Declassify information when appropriate

Question: 293

Which of the following secure startup mechanisms are PRIMARILY designed to thwart attacks?

- A. Timing
- B. Cold boot
- C. Side channel
- D. Acoustic cryptanalysis

Answer: B

Question: 294

What is the BEST first step for determining if the appropriate security controls are in place for protecting data at rest?

- A. Identify regulatory requirements
- B. Conduct a risk assessment
- C. Determine business drivers
- D. Review the security baseline configuration

Answer: B

Question: 295

Which of the following provides the MOST protection against data theft of sensitive information when a laptop is stolen?

- A. Set up a BIOS and operating system password
- B. Encrypt the virtual drive where confidential files can be stored
- C. Implement a mandatory policy in which sensitive data cannot be stored on laptops, but only on the corporate network
- D. Encrypt the entire disk and delete contents after a set number of failed access attempts

Answer: D

Question: 296

Which of the following is a process within a Systems Engineering Life Cycle (SELC) stage?

- A. Requirements Analysis
- B. Development and Deployment
- C. Production Operations
- D. Utilization Support

Answer: A

Question: 297

What component of a web application that stores the session state in a cookie can be bypassed by an attacker?

- A. An initialization check
- B. An identification check
- C. An authentication check
- D. An authorization check

Answer: C

Question: 298

Which of the following is a MAJOR consideration in implementing a Voice over IP (VoIP) network?

- A. Use of a unified messaging.
- B. Use of separation for the voice network.
- C. Use of Network Access Control (NAC) on switches.
- D. Use of Request for Comments (RFC) 1918 addressing.

Answer: B

Question: 299

Host-Based Intrusion Protection (HIPS) systems are often deployed in monitoring or learning mode during their initial implementation. What is the objective of starting in this mode?

- A. Automatically create exceptions for specific actions or files
- B. Determine which files are unsafe to access and blacklist them
- C. Automatically whitelist actions or files known to the system
- D. Build a baseline of normal or safe system events for review

Answer: D

Question: 300

Which of the following describes the concept of a Single Sign-On (SSO) system?

- A. Users are authenticated to one system at a time.
- B. Users are identified to multiple systems with several credentials.
- C. Users are authenticated to multiple systems with one login.
- D. Only one user is using the system at a time.

Answer: C

Question: 301

What physical characteristic does a retinal scan biometric device measure?

- A. The amount of light reflected by the retina

- B. The size, curvature, and shape of the retina
- C. The pattern of blood vessels at the back of the eye
- D. The pattern of light receptors at the back of the eye

Answer: C

Question: 302

What does secure authentication with logging provide?

- A. Data integrity
- B. Access accountability
- C. Encryption logging format
- D. Segregation of duties

Answer: B

Question: 303

Which of the following provides the minimum set of privileges required to perform a job function and restricts the user to a domain with the required privileges?

- A. Access based on rules
- B. Access based on user's role
- C. Access determined by the system
- D. Access based on data sensitivity

Answer: B

Question: 304

Discretionary Access Control (DAC) restricts access according to

- A. data classification labeling.
- B. page views within an application.
- C. authorizations granted to the user.
- D. management accreditation.

Answer: C

Question: 305

Retaining system logs for six months or longer can be valuable for what activities?

- A. Disaster recovery and business continuity
- B. Forensics and incident response
- C. Identity and authorization management
- D. Physical and logical access control

Answer: B

Question: 306

Which of the following statements is TRUE regarding state-based analysis as a functional software testing technique?

- A. It is useful for testing communications protocols and graphical user interfaces.
- B. It is characterized by the stateless behavior of a process implemented in a function.
- C. Test inputs are obtained from the derived boundaries of the given functional specifications.
- D. An entire partition can be covered by considering only one representative value from that partition.

Answer: A

Question: 307

Which of the following statements is TRUE regarding value boundary analysis as a functional software testing technique?

- A. It is useful for testing communications protocols and graphical user interfaces.
- B. It is characterized by the stateless behavior of a process implemented in a function.
- C. Test inputs are obtained from the derived threshold of the given functional specifications.
- D. An entire partition can be covered by considering only one representative value from that partition.

Answer: C

Question: 308

Data leakage of sensitive information is MOST often concealed by which of the following?

- A. Secure Sockets Layer (SSL)
- B. Secure Hash Algorithm (SHA)
- C. Wired Equivalent Privacy (WEP)
- D. Secure Post Office Protocol (POP)

Answer: A

Question: 309

Which of the following is a reason to use manual patch installation 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 likelihood of system or application incompatibilities will be decreased.
- D. The ability to cover large geographic areas is increased.

Answer: C

Question: 310

Which of the following is the MOST important element of change management documentation?

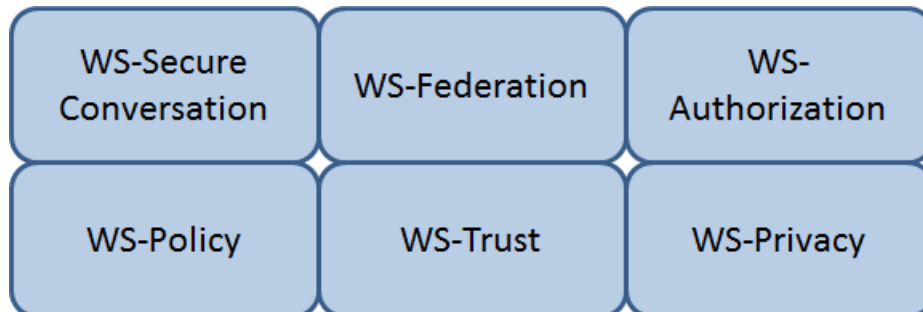
- A. List of components involved
- B. Number of changes being made
- C. Business case justification
- D. A stakeholder communication

Answer: C

Question: 311

HOT SPOT

Which Web Services Security (WS-Security) specification negotiates how security tokens will be issued, renewed and validated? Click on the correct specification in the image below.



Answer:

WS-Trust

Explanation:

The protocol used for issuing security tokens is based on WS-Trust. WS-Trust is a Web service specification that builds on WS-Security. It describes a protocol used for issuance, exchange, and validation of security tokens. WS-Trust provides a solution for interoperability by defining a protocol for issuing and exchanging security tokens, based on token format, namespace, or trust boundaries. Reference: <https://msdn.microsoft.com/en-us/library/ff650503.aspx>

Question: 312

The PRIMARY outcome of a certification process is that it provides documented

- A. system weaknesses for remediation.
- B. standards for security assessment, testing, and process evaluation.
- C. interconnected systems and their implemented security controls.
- D. security analyses needed to make a risk-based decision.

Answer: D

Question: 313

Which of the following standards/guidelines requires an Information Security Management System (ISMS) to be defined?

- A. International Organization for Standardization (ISO) 27000 family
- B. Information Technology Infrastructure Library (ITIL)
- C. Payment Card Industry Data Security Standard (PCIDSS)

D.ISO/IEC 20000

Answer: A

Question: 314

Which of the following PRIMARILY contributes to security incidents in web-based applications?

- A. Systems administration and operating systems
- B. System incompatibility and patch management
- C. Third-party applications and change controls
- D. Improper stress testing and application interfaces

Answer: C

Question: 315

DRAG DROP

In which order, from MOST to LEAST impacted, does user awareness training reduce the occurrence of the events below?

Event

Order

Disloyal employees
User-instigated
Targeted infiltration
Virus infiltrations

1
2
3
4

Answer:

Disloyal employees
User-instigated
Targeted infiltration
Virus infiltrations

Question: 316

What is the process called when impact values are assigned to the security objectives for information types?

- A. Qualitative analysis
- B. Quantitative analysis

- C. Remediation
- D. System security categorization

Answer: D

Question: 317

Data remanence refers to which of the following?

- A. The remaining photons left in a fiber optic cable after a secure transmission.
- B. The retention period required by law or regulation.
- C. The magnetic flux created when removing the network connection from a server or personal computer.
- D. The residual information left on magnetic storage media after a deletion or erasure.

Answer: D

Question: 318

Which of the following describes the BEST configuration management practice?

- A. After installing a new system, the configuration files are copied to a separate back-up system and hashed to detect tampering.
- B. After installing a new system, the configuration files are copied to an air-gapped system and hashed to detect tampering.
- C. The firewall rules are backed up to an air-gapped system.
- D. A baseline configuration is created and maintained for all relevant systems.

Answer: D

Question: 319

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

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

Answer: B

Question: 320

Which of the following is the MOST likely cause of a non-malicious data breach when the source of the data breach was an un-marked file cabinet containing sensitive documents?

- A. Ineffective data classification
- B. Lack of data access controls
- C. Ineffective identity management controls
- D. Lack of Data Loss Prevention (DLP) tools

Answer: A

Question: 321

DRAG DROP

Drag the following Security Engineering terms on the left to the BEST definition on the right.

Security EngineeringSecurity Risk TreatmentDefinition

The method used to identify the confidentiality, integrity, and availability requirements for organizational and system assets and to characterize the adverse impact or consequences should the asset be lost, modified, degraded, disrupted, compromised, or become unavailable.

Threat Assessment

A measure of the extent to which an entity is threatened by a potential circumstance or event, the adverse impacts that would arise if the circumstance or event occurs, and the likelihood of occurrence.

Protection Needs

The method used to identify and characterize the dangers anticipated throughout the life cycle of the system.

Risk

The method used to identify feasible security risk mitigation options and plans.

Answer:

Definition**Protection Needs**

The method used to identify the confidentiality, integrity, and availability requirements for organizational and system assets and to characterize the adverse impact or consequences should the asset be lost, modified, degraded, disrupted, compromised, or become unavailable.

Risk

A measure of the extent to which an entity is threatened by a potential circumstance or event, the adverse impacts that would arise if the circumstance or event occurs, and the likelihood of occurrence.

Threat Assessment

The method used to identify and characterize the dangers anticipated throughout the life cycle of the system.

Security Risk Treatment

The method used to identify feasible security risk mitigation options and plans.

Question: 322

A security professional has been asked to evaluate the options for the location of a new data center within a multifloor building. Concerns for the data center include emanations and physical access controls.

Which of the following is the BEST location?

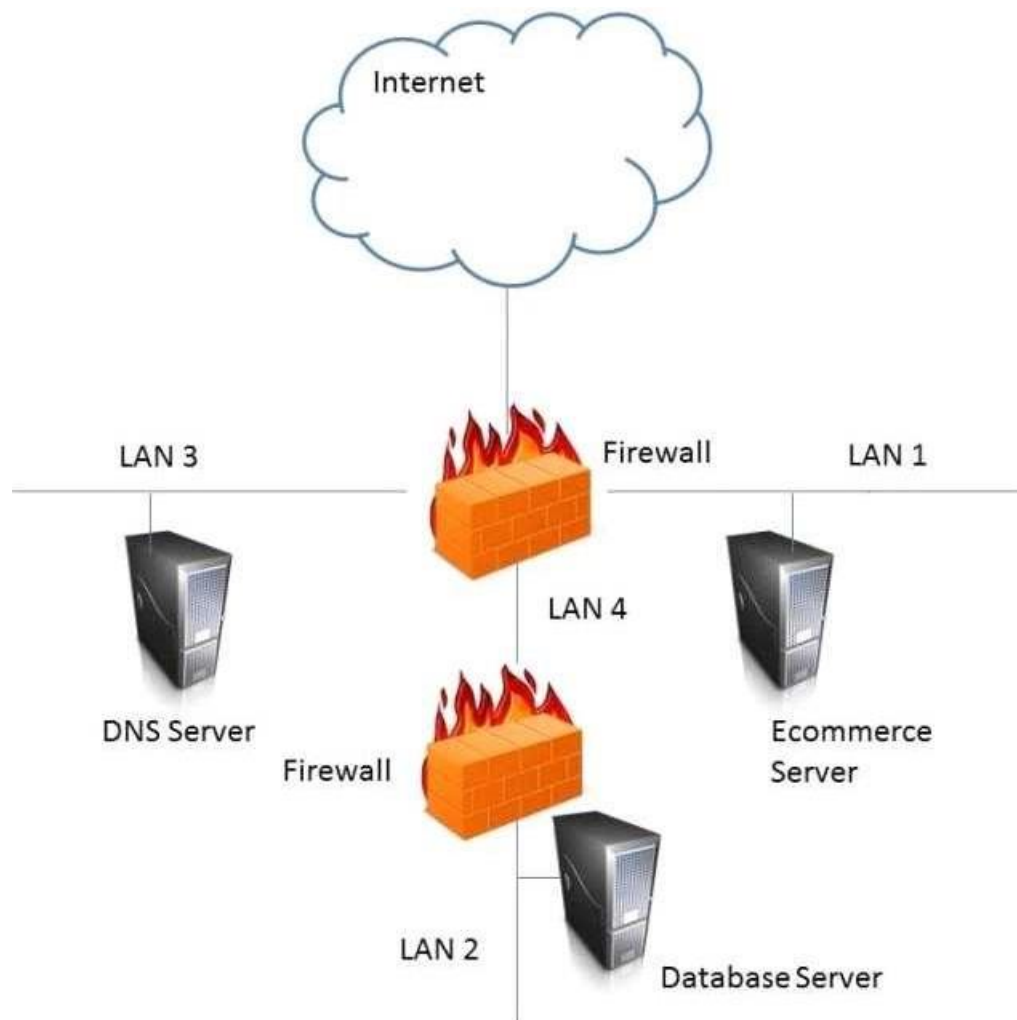
- A. On the top floor
- B. In the basement
- C. In the core of the building
- D. In an exterior room with windows

Answer: C

Question: 323

HOT SPOT

In the network design below, where is the MOST secure Local Area Network (LAN) segment to deploy a Wireless Access Point (WAP) that provides contractors access to the Internet and authorized enterprise services?



Answer:

LAN 4

Question: 324

Which of the following is the PRIMARY concern when using an Internet browser to access a cloud-based service?

- A. Insecure implementation of Application Programming Interfaces (API)
- B. Improper use and storage of management keys
- C. Misconfiguration of infrastructure allowing for unauthorized access
- D. Vulnerabilities within protocols that can expose confidential data

Answer: D

Question: 325

After a thorough analysis, it was discovered that a perpetrator compromised a network by gaining access to the network through a Secure Socket Layer (SSL) Virtual Private Network (VPN) gateway. The perpetrator guessed a username and brute forced the password to gain access. Which of the following BEST mitigates this issue?

- A. Implement strong passwords authentication for VPN
- B. Integrate the VPN with centralized credential stores
- C. Implement an Internet Protocol Security (IPSec) client
- D. Use two-factor authentication mechanisms

Answer: D

Question: 326

For an organization considering two-factor authentication for secure network access, which of the following is MOST secure?

- A. Challenge response and private key
- B. Digital certificates and Single Sign-On (SSO)
- C. Tokens and passphrase
- D. Smart card and biometrics

Answer: D

Question: 327

If an identification process using a biometric system detects a 100% match between a presented template and a stored template, what is the interpretation of this result?

- A. User error

- B. Suspected tampering
- C. Accurate identification
- D. Unsuccessful identification

Answer: B

Question: 328

Regarding asset security and appropriate retention, which of the following INITIAL top three areas are important to focus on?

- A. Security control baselines, access controls, employee awareness and training
- B. Human resources, asset management, production management
- C. Supply chain lead time, inventory control, encryption
- D. Polygraphs, crime statistics, forensics

Answer: A

Question: 329

Discretionary Access Control (DAC) is based on which of the following?

- A. Information source and destination
- B. Identification of subjects and objects
- C. Security labels and privileges
- D. Standards and guidelines

Answer: B

Question: 330

By carefully aligning the pins in the lock, which of the following defines the opening of a mechanical lock without the proper key?

- A. Lock pinging
- B. Lock picking
- C. Lock bumping
- D. Lock bricking

Answer: B

Question: 331

An organization has decided to contract with a cloud-based service provider to leverage their identity as a service offering. They will use Open Authentication (OAuth) 2.0 to authenticate external users to the organization's services.

As part of the authentication process, which of the following must the end user provide?

- A. An access token
- B. A username and password
- C. A username
- D. A password

Answer: A

Question: 332

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

Answer: D

Question: 333

How does an organization verify that an information system's current hardware and software match the standard system configuration?

- A. By reviewing the configuration after the system goes into production
- B. By running vulnerability scanning tools on all devices in the environment
- C. By comparing the actual configuration of the system against the baseline
- D. By verifying all the approved security patches are implemented

Answer: C

Question: 334

The goal of a Business Continuity Plan (BCP) training and awareness program is to

- A. enhance the skills required to create, maintain, and execute the plan.
- B. provide for a high level of recovery in case of disaster.

- C. describe the recovery organization to new employees.
- D. provide each recovery team with checklists and procedures.

Answer: A

Question: 335

Which of the following disaster recovery test plans will be MOST effective while providing minimal risk?

- A. Read-through
- B. Parallel
- C. Full interruption
- D. Simulation

Answer: B

Question: 336

An organization has developed a major application that has undergone accreditation testing. After receiving the results of the evaluation, what is the final step before the application can be accredited?

- A. Acceptance of risk by the authorizing official
- B. Remediation of vulnerabilities
- C. Adoption of standardized policies and procedures
- D. Approval of the System Security Plan (SSP)

Answer: A

Question: 337

What is one way to mitigate the risk of security flaws in custom software?

- A. Include security language in the Earned Value Management (EVM) contract
- B. Include security assurance clauses in the Service Level Agreement (SLA)
- C. Purchase only Commercial Off-The-Shelf (COTS) products
- D. Purchase only software with no open source Application Programming Interfaces (APIs)

Answer: B

Question: 338

Which of the following is the BEST example of weak management commitment to the protection of security assets and resources?

- A. poor governance over security processes and procedures
- B. immature security controls and procedures
- C. variances against regulatory requirements
- D. unanticipated increases in security incidents and threats

Answer: A

Question: 339

What does an organization FIRST review to assure compliance with privacy requirements?

- A. Best practices
- B. Business objectives
- C. Legal and regulatory mandates
- D. Employee's compliance to policies and standards

Answer: C

Question: 340

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

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

Answer: B

Question: 341

An organization lacks a data retention policy. Of the following, who is the BEST person to consult for such requirement?

- A. Application Manager
- B. Database Administrator
- C. Privacy Officer
- D. Finance Manager

Answer: C

Question: 342

Which of the following analyses is performed to protect information assets?

- A. Business impact analysis
- B. Feasibility analysis
- C. Cost benefit analysis
- D. Data analysis

Answer: A

Question: 343

DRAG DROP

Place in order, from BEST (1) to WORST (4), the following methods to reduce the risk of data remanence on magnetic media.

Sequence		Method
1		Overwriting
2		Degaussing
3		Destruction
4		Deleting

Answer:

3	Overwriting
2	Degaussing
1	Destruction
4	Deleting

Question: 344

Which of the following methods can be used to achieve confidentiality and integrity for data in transit?

- A. Multiprotocol Label Switching (MPLS)
- B. Internet Protocol Security (IPSec)
- C. Federated identity management
- D. Multi-factor authentication

Answer: B

Question: 345

Secure Sockets Layer (SSL) encryption protects

- A. data at rest.
- B. the source IP address.
- C. data transmitted.
- D. data availability.

Answer: C

Question: 346

Which of the following are Systems Engineering Life Cycle (SELC) Technical Processes?

- A. Concept, Development, Production, Utilization, Support, Retirement
- B. Stakeholder Requirements Definition, Architectural Design, Implementation, Verification, Operation
- C. Acquisition, Measurement, Configuration Management, Production, Operation, Support
- D. Concept, Requirements, Design, Implementation, Production, Maintenance, Support, Disposal

Answer: B

Question: 347

Which of the following BEST describes a Protection Profile (PP)?

- A. A document that expresses an implementation independent set of security requirements for an IT product that meets specific consumer needs.
- B. A document that is used to develop an IT security product from its security requirements definition.
- C. A document that expresses an implementation dependent set of security requirements which contains only the security functional requirements.
- D. A document that represents evaluated products where there is a one-to-one correspondence between a PP and a Security Target (ST).

Answer: A

Question: 348

Which of the following BEST describes a rogue Access Point (AP)?

- A. An AP that is not protected by a firewall
- B. An AP not configured to use Wired Equivalent Privacy (WEP) with Triple Data Encryption Algorithm (3DES)
- C. An AP connected to the wired infrastructure but not under the management of authorized network administrators
- D. An AP infected by any kind of Trojan or Malware

Answer: C

Question: 349

The 802.1x standard provides a framework for what?

- A. Network authentication for only wireless networks
- B. Network authentication for wired and wireless networks
- C. Wireless encryption using the Advanced Encryption Standard (AES)
- D. Wireless network encryption using Secure Sockets Layer (SSL)

Answer: B

Question: 350

Single Sign-On (SSO) is PRIMARILY designed to address which of the following?

- A. Confidentiality and Integrity
- B. Availability and Accountability
- C. Integrity and Availability
- D. Accountability and Assurance

Answer: D

Question: 351

Which of the following is the PRIMARY security concern associated with the implementation of smart cards?

- A. The cards have limited memory
- B. Vendor application compatibility
- C. The cards can be misplaced
- D. Mobile code can be embedded in the card

Answer: C

Question: 352

Which of the following is a function of Security Assertion Markup Language (SAML)?

- A. File allocation
- B. Redundancy check
- C. Extended validation
- D. Policy enforcement

Answer: D

Question: 353

What is an important characteristic of Role Based Access Control (RBAC)?

- A. Supports Mandatory Access Control (MAC)
- B. Simplifies the management of access rights
- C. Relies on rotation of duties
- D. Requires two factor authentication

Answer: B

Question: 354

A Simple Power Analysis (SPA) attack against a device directly observes which of the following?

- A. Static discharge
- B. Consumption
- C. Generation
- D. Magnetism

Answer: B

Question: 355

Which of the following is an essential step before performing Structured Query Language (SQL) penetration tests on a production system?

- A. Verify countermeasures have been deactivated.

- B. Ensure firewall logging has been activated.
- C. Validate target systems have been backed up.
- D. Confirm warm site is ready to accept connections.

Answer: C

Question: 356

Which of the following activities BEST identifies operational problems, security misconfigurations, and malicious attacks?

- A. Policy documentation review
- B. Authentication validation
- C. Periodic log reviews
- D. Interface testing

Answer: C

Question: 357

What is the GREATEST challenge of an agent-based patch management solution?

- A. Time to gather vulnerability information about the computers in the program
- B. Requires that software be installed, running, and managed on all participating computers
- C. The significant amount of network bandwidth while scanning computers
- D. The consistency of distributing patches to each participating computer

Answer: B

Question: 358

Changes to a Trusted Computing Base (TCB) system that could impact the security posture of that system and trigger a recertification activity are documented in the

- A. security impact analysis.
- B. structured code review.
- C. routine self assessment.
- D. cost benefit analysis.

Answer: A

Question: 359

Disaster Recovery Plan (DRP) training material should be

- A. consistent so that all audiences receive the same training.
- B. stored in a fire proof safe to ensure availability when needed.
- C. only delivered in paper format.
- D. presented in a professional looking manner.

Answer: A

Question: 360

The MAIN reason an organization conducts a security authorization process is to

- A. force the organization to make conscious risk decisions.
- B. assure the effectiveness of security controls.
- C. assure the correct security organization exists.
- D. force the organization to enlist management support.

Answer: A

Question: 361

During the risk assessment phase of the project the CISO discovered that a college within the University is collecting Protected Health Information (PHI) data via an application that was developed in-house. The college collecting this data is fully aware of the regulations for Health Insurance Portability and Accountability Act (HIPAA) and is fully compliant.

What is the best approach for the CISO?

During the risk assessment phase of the project the CISO discovered that a college within the University is collecting Protected Health Information (PHI) data via an application that was developed in-house. The college collecting this data is fully aware of the regulations for Health Insurance Portability and Accountability Act (HIPAA) and is fully compliant.

What is the best approach for the CISO?

- A. Document the system as high risk
- B. Perform a vulnerability assessment
- C. Perform a quantitative threat assessment
- D. Notate the information and move on

Answer: B

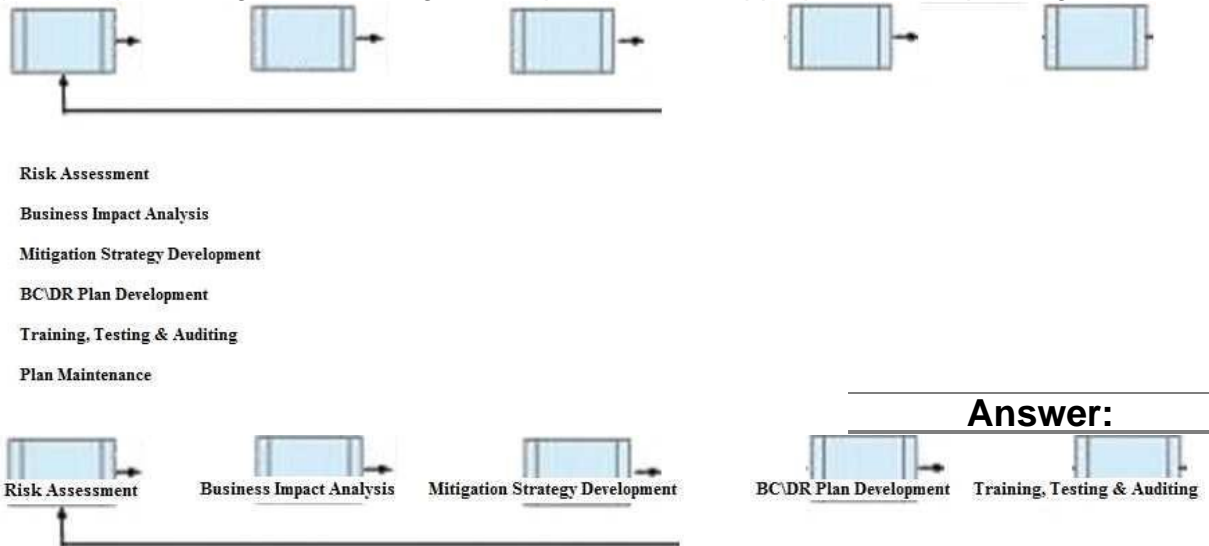
Question: 362

DRAG DROP

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What is the best approach for the CISO?

Below are the common phases to creating a Business Continuity/Disaster Recovery (BC/DR) plan. Drag the remaining BC/DR phases to the appropriate corresponding location.

**Question: 363**

The World Trade Organization's (WTO) agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) requires authors of computer software to be given the

- A. right to refuse or permit commercial rentals.
- B. right to disguise the software's geographic origin.
- C. ability to tailor security parameters based on location.
- D. ability to confirm license authenticity of their works.

Answer: A

Question: 364

What is the GREATEST challenge to identifying data leaks?

- A. Available technical tools that enable user activity monitoring.
- B. Documented asset classification policy and clear labeling of assets.
- C. Senior management cooperation in investigating suspicious behavior.
- D. Law enforcement participation to apprehend and interrogate suspects.

Answer: B

Question: 365

While investigating a malicious event, only six days of audit logs from the last month were available. What policy should be updated to address this problem?

- A. Retention
- B. Reporting
- C. Recovery
- D. Remediation

Answer: A

Question: 366

Who is ultimately responsible to ensure that information assets are categorized and adequate measures are taken to protect them?

- A. Data Custodian
- B. Executive Management
- C. Chief Information Security Officer
- D. Data/Information/Business Owners

Answer: B

Question: 367

A mobile device application that restricts the storage of user information to just that which is needed to accomplish lawful business goals adheres to what privacy principle?

- A. Onward transfer
- B. Collection Limitation
- C. Collector Accountability
- D. Individual Participation

Answer: B

Question: 368

Which of the following is the PRIMARY benefit of implementing data-in-use controls?

- A. If the data is lost, it must be decrypted to be opened.

- B. If the data is lost, it will not be accessible to unauthorized users.
- C. When the data is being viewed, it can only be printed by authorized users.
- D. When the data is being viewed, it must be accessed using secure protocols.

Answer: C

Question: 369

A health care provider is considering Internet access for their employees and patients. Which of the following is the organization's MOST secure solution for protection of data?

- A. Public Key Infrastructure (PKI) and digital signatures
- B. Trusted server certificates and passphrases
- C. User ID and password
- D. Asymmetric encryption and User ID

Answer: A

Question: 370

DRAG DROP

Match the objectives to the assessment questions in the governance domain of Software Assurance Maturity Model (SAMM).

Secure Architecture

Do you advertise shared security services with guidance for project teams?

Education & Guidance

Are most people tested to ensure a baseline skill- set for secure development practices?

Strategy & Metrics

Does most of the organization know about what's required based on risk ratings?

Vulnerability Management

Are most project teams aware of their security point(s) of contact and response team(s)?

Answer:

Secure Architecture

Do you advertise shared security services with guidance for project teams?

Education & Guidance

Are most people tested to ensure a baseline skill- set for secure development practices?

Strategy & Metrics

Does most of the organization know about what's required based on risk ratings?

Vulnerability Management

Are most project teams aware of their security point(s) of contact and response team(s)?

Question: 371

Which of the following BEST describes the purpose of the security functional requirements of Common Criteria?

- A. Level of assurance of the Target of Evaluation (TOE) in intended operational environment
- B. Selection to meet the security objectives stated in test documents
- C. Security behavior expected of a TOE
- D. Definition of the roles and responsibilities

Answer: C

Question: 372

Application of which of the following Institute of Electrical and Electronics Engineers (IEEE) standards will prevent an unauthorized wireless device from being attached to a network?

- A. IEEE 802.1F
- B. IEEE 802.1H
- C. IEEE 802.1Q
- D. IEEE 802.1X

Answer: D

Question: 373

The PRIMARY security concern for handheld devices is the

- A. strength of the encryption algorithm.
- B. spread of malware during synchronization.
- C. ability to bypass the authentication mechanism.
- D. strength of the Personal Identification Number (PIN).

Answer: C

Question: 374

Which of the following is the BIGGEST weakness when using native Lightweight Directory Access Protocol (LDAP) for authentication?

- A. Authorizations are not included in the server response
- B. Unsalted hashes are passed over the network
- C. The authentication session can be replayed

D. Passwords are passed in cleartext

Answer: D

Question: 375

A global organization wants to implement hardware tokens as part of a multifactor authentication solution for remote access. The PRIMARY advantage of this implementation is

- A. the scalability of token enrollment.
- B. increased accountability of end users.
- C. it protects against unauthorized access.
- D. it simplifies user access administration.

Answer: C

Question: 376

Which of the following could elicit a Denial of Service (DoS) attack against a credential management system?

- A. Delayed revocation or destruction of credentials
- B. Modification of Certificate Revocation List
- C. Unauthorized renewal or re-issuance
- D. Token use after decommissioning

Answer: B

Question: 377

What security risk does the role-based access approach mitigate MOST effectively?

- A. Excessive access rights to systems and data
- B. Segregation of duties conflicts within business applications
- C. Lack of system administrator activity monitoring
- D. Inappropriate access requests

Answer: A

Question: 378

Which of the following questions can be answered using user and group entitlement reporting?

- A. When a particular file was last accessed by a user
- B. Change control activities for a particular group of users
- C. The number of failed login attempts for a particular user
- D. Where does a particular user have access within the network

Answer: D

Question: 379

A network scan found 50% of the systems with one or more critical vulnerabilities. Which of the following represents the BEST action?

- A. Assess vulnerability risk and program effectiveness.
- B. Assess vulnerability risk and business impact.
- C. Disconnect all systems with critical vulnerabilities.
- D. Disconnect systems with the most number of vulnerabilities.

Answer: B

Question: 380

Which of the following command line tools can be used in the reconnaissance phase of a network vulnerability assessment?

- A. dig
- B. ifconfig
- C. ipconfig
- D. nbtstat

Answer: A

Question: 381

An organization has hired a security services firm to conduct a penetration test. Which of the following will the organization provide to the tester?

- A. Limits and scope of the testing.
- B. Physical location of server room and wiring closet.
- C. Logical location of filters and concentrators.
- D. Employee directory and organizational chart.

Answer: A

Question: 382

When planning a penetration test, the tester will be MOST interested in which information?

- A. Places to install back doors
- B. The main network access points
- C. Job application handouts and tours
- D. Exploits that can attack weaknesses

Answer: B

Question: 383

After acquiring the latest security updates, what must be done before deploying to production systems?

- A. Use tools to detect missing system patches
- B. Install the patches on a test system
- C. Subscribe to notifications for vulnerabilities
- D. Assess the severity of the situation

Answer: B

Question: 384

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

Answer: B

Question: 385

Software Code signing is used as a method of verifying what security concept?

- A. Integrity
- B. Confidentiality
- C. Availability
- D. Access Control

Answer: A

Question: 386

Which of the following BEST describes the purpose of performing security certification?

- A. To identify system threats, vulnerabilities, and acceptable level of risk
- B. To formalize the confirmation of compliance to security policies and standards
- C. To formalize the confirmation of completed risk mitigation and risk analysis
- D. To verify that system architecture and interconnections with other systems are effectively implemented

Answer: B

Question: 387

Are companies legally required to report all data breaches?

- A. No, different jurisdictions have different rules.
- B. No, not if the data is encrypted.
- C. No, companies' codes of ethics don't require it.
- D. No, only if the breach had a material impact.

Answer: A

Question: 388

What is the PRIMARY difference between security policies and security procedures?

- A. Policies are used to enforce violations, and procedures create penalties
- B. Policies point to guidelines, and procedures are more contractual in nature
- C. Policies are included in awareness training, and procedures give guidance
- D. Policies are generic in nature, and procedures contain operational details

Answer: D

Question: 389

For privacy protected data, which of the following roles has the highest authority for establishing dissemination rules for the data?

- A. Information Systems Security Officer
- B. Data Owner
- C. System Security Architect
- D. Security Requirements Analyst

Answer: B

Question: 390

Which of the following controls is the FIRST step in protecting privacy in an information system?

- A. Data Redaction
- B. Data Minimization
- C. Data Encryption
- D. Data Storage

Answer: B

Question: 391

Which of the following BEST avoids data remanence disclosure for cloud hosted resources?

- A. Strong encryption and deletion of the keys after data is deleted.
- B. Strong encryption and deletion of the virtual host after data is deleted.
- C. Software based encryption with two factor authentication.
- D. Hardware based encryption on dedicated physical servers.

Answer: A

Question: 392

What is the MOST efficient way to secure a production program and its data?

- A. Disable default accounts and implement access control lists (ACL)
- B. Harden the application and encrypt the data
- C. Disable unused services and implement tunneling
- D. Harden the servers and backup the data

Answer: B

Question: 393

If compromised, which of the following would lead to the exploitation of multiple virtual machines?

- A. Virtual device drivers
- B. Virtual machine monitor
- C. Virtual machine instance
- D. Virtual machine file system

Answer: B

Question: 394

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

Answer: D

Question: 395

Which one of the following operates at the session, transport, or network layer of the Open System Interconnection (OSI) model?

- A. Data at rest encryption
- B. Configuration Management
- C. Integrity checking software
- D. Cyclic redundancy check (CRC)

Answer: D

Question: 396

Which of the following secures web transactions at the Transport Layer?

- A. Secure HyperText Transfer Protocol (S-HTTP)
- B. Secure Sockets Layer (SSL)

- C.Socket Security (SOCKS)
- D.Secure Shell (SSH)

Answer: B

Question: 397

Which of the following is the MOST effective method of mitigating data theft from an active user workstation?

- A. Implement full-disk encryption
- B. Enable multifactor authentication
- C. Deploy file integrity checkers
- D. Disable use of portable devices

Answer: D

Question: 398

Which of the following protocols would allow an organization to maintain a centralized list of users that can read a protected webpage?

- A. Lightweight Directory Access Control (LDAP)
- B. Security Assertion Markup Language (SAML)
- C. Hypertext Transfer Protocol (HTTP)
- D. Kerberos

Answer: A

Question: 399

The BEST method to mitigate the risk of a dictionary attack on a system is to

- A. use a hardware token.
- B. use complex passphrases.
- C. implement password history.
- D. encrypt the access control list (ACL).

Answer: A

Question: 400

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

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

Answer: B

Question: 401

Which of the following prevents improper aggregation of privileges in Role Based Access Control (RBAC)?

- A. Hierarchical inheritance
- B. Dynamic separation of duties
- C. The Clark-Wilson security model
- D. The Bell-LaPadula security model

Answer: B

Question: 402

The implementation of which features of an identity management system reduces costs and administration overhead while improving audit and accountability?

- A. Two-factor authentication
- B. Single Sign-On (SSO)
- C. User self-service
- D. A metadirectory

Answer: C

Question: 403

Which of the following is the BEST method to assess the effectiveness of an organization's vulnerability management program?

- A. Review automated patch deployment reports
- B. Periodic third party vulnerability assessment
- C. Automated vulnerability scanning
- D. Perform vulnerability scan by security team

Answer: B

Question: 404

Which methodology is recommended for penetration testing to be effective in the development phase of the life-cycle process?

- A. White-box testing
- B. Software fuzz testing
- C. Black-box testing
- D. Visual testing

Answer: A

Question: 405

DRAG DROP

A software security engineer is developing a black box-based test plan that will measure the system's reaction to incorrect or illegal inputs or unexpected operational errors and situations. Match the functional testing techniques on the left with the correct input

Functional Testing

Techniques

State-Based Analysis

Input Parameter

Selection

Select one input that does not belong to any of the identified partitions.

Equivalence Class Analysis

Select inputs that are at the external limits of the domain of valid values.

Decision Table Analysis

Select invalid combinations of input values.

Boundary Value Analysis

Select unexpected inputs corresponding to each known condition.

Questions & Answers
parameters on the right.

P-

Answer:

<u>Input Parameter Selection</u>	
<u>Equivalence Class Analysis</u>	Select one input that does not belong to any of the identified partitions.
<u>Boundary Value Analysis</u>	Select inputs that are at the external limits of the domain of valid values.
<u>Decision Table Analysis</u>	Select invalid combinations of input values.
<u>State-Based Analysis</u>	Select unexpected inputs corresponding to each known condition.

Question: 406

Which of the following is most helpful in applying the principle of LEAST privilege?

- A. Establishing a sandboxing environment
- B. Setting up a Virtual Private Network (VPN) tunnel
- C. Monitoring and reviewing privileged sessions
- D. Introducing a job rotation program

Answer: A

Question: 407

Which of the following explains why record destruction requirements are included in a data retention policy?

- A. To comply with legal and business requirements
- B. To save cost for storage and backup
- C. To meet destruction guidelines
- D. To validate data ownership

Answer: A

Question: 408

What should happen when an emergency change to a system must be performed?

- A. The change must be given priority at the next meeting of the change control board.
- B. Testing and approvals must be performed quickly.
- C. The change must be performed immediately and then submitted to the change board.
- D. The change is performed and a notation is made in the system log.

Answer: B

Question: 409

Which of the following is the BEST approach to take in order to effectively incorporate the concepts of business continuity into the organization?

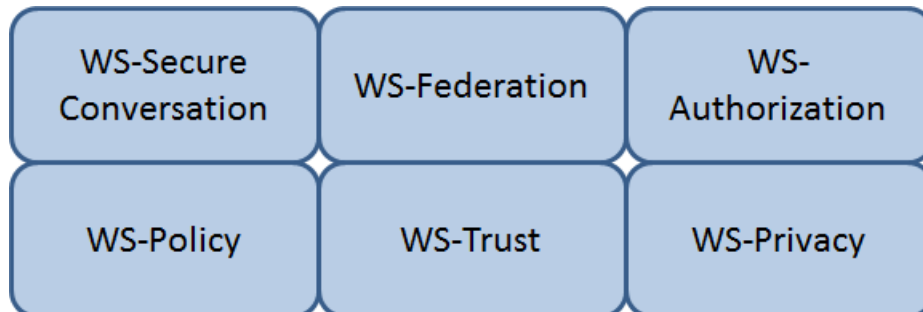
- A. Ensure end users are aware of the planning activities
- B. Validate all regulatory requirements are known and fully documented
- C. Develop training and awareness programs that involve all stakeholders
- D. Ensure plans do not violate the organization's cultural objectives and goals

Answer: C

Question: 410

HOT SPOT

Which Web Services Security (WS-Security) specification maintains a single authenticated identity across multiple dissimilar environments? Click on the correct specification in the image below.



Answer:

WS-Federation

Explanation:

Reference: Java Web Services: Up and Running" By Martin Kalin page 228

Question: 411

Which of the following has the GREATEST impact on an organization's security posture?

- A. International and country-specific compliance requirements
- B. Security violations by employees and contractors
- C. Resource constraints due to increasing costs of supporting security
- D. Audit findings related to employee access and permissions process

Answer: A

Question: 412

The application of which of the following standards would BEST reduce the potential for data breaches?

- A. ISO 9000
- B. ISO 20121
- C. ISO 26000
- D. ISO 27001

Answer: D

Question: 413

In order for a security policy to be effective within an organization, it MUST include

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

Answer: D

Question: 414

Which of the following roles has the obligation to ensure that a third party provider is capable of processing and handling data in a secure manner and meeting the standards set by the organization?

- A. Data Custodian
- B. Data Owner
- C. Data Creator
- D. Data User

Answer: B

Question: 415

To protect auditable information, which of the following MUST be configured to only allow read access?

- A. Logging configurations
- B. Transaction log files
- C. User account configurations
- D. Access control lists (ACL)

Answer: B

Question: 416

What type of encryption is used to protect sensitive data in transit over a network?

- A. Payload encryption and transport encryption
- B. Authentication Headers (AH)
- C. Keyed-Hashing for Message Authentication

D. Point-to-Point Encryption (P2PE)

Answer: A

Question: 417

Which of the following entities is ultimately accountable for data remanence vulnerabilities with data replicated by a cloud service provider?

- A. Data owner
- B. Data steward
- C. Data custodian
- D. Data processor

Answer: A

Question: 418

Which of the following is a recommended alternative to an integrated email encryption system?

- A. Sign emails containing sensitive data
- B. Send sensitive data in separate emails
- C. Encrypt sensitive data separately in attachments
- D. Store sensitive information to be sent in encrypted drives

Answer: C

Question: 419

In the Open System Interconnection (OSI) model, which layer is responsible for the transmission of binary data over a communications network?

- A. Application Layer
- B. Physical Layer
- C. Data-Link Layer
- D. Network Layer

Answer: B

Question: 420

What is the PRIMARY goal for using Domain Name System Security Extensions (DNSSEC) to sign

records?

- A. Integrity
- B. Confidentiality
- C. Accountability
- D. Availability

Answer: A

Question: 421

While inventorying storage equipment, it is found that there are unlabeled, disconnected, and powered off devices. Which of the following is the correct procedure for handling such equipment?

- A. They should be recycled to save energy.
- B. They should be recycled according to NIST SP 800-88.
- C. They should be inspected and sanitized following the organizational policy.
- D. They should be inspected and categorized properly to sell them for reuse.

Answer: C

Question: 422

The PRIMARY characteristic of a Distributed Denial of Service (DDoS) attack is that it

- A. exploits weak authentication to penetrate networks.
- B. can be detected with signature analysis.
- C. looks like normal network activity.
- D. is commonly confused with viruses or worms.

Answer: C

Question: 423

Which of the following is generally indicative of a replay attack when dealing with biometric authentication?

- A. False Acceptance Rate (FAR) is greater than 1 in 100,000
- B. False Rejection Rate (FRR) is greater than 5 in 100
- C. Inadequately specified templates
- D. Exact match

Answer: D

Question: 424

During a fingerprint verification process, which of the following is used to verify identity and authentication?

- A. A pressure value is compared with a stored template
- B. Sets of digits are matched with stored values
- C. A hash table is matched to a database of stored value
- D. A template of minutiae is compared with a stored template

Answer: D

Question: 425

The BEST example of the concept of "something that a user has" when providing an authorized user access to a computing system is

- A. the user's hand geometry.
- B. a credential stored in a token.
- C. a passphrase.
- D. the user's face.

Answer: B

Question: 426

A security professional is asked to provide a solution that restricts a bank teller to only perform a savings deposit transaction but allows a supervisor to perform corrections after the transaction. Which of the following is the MOST effective solution?

- A. Access is based on rules.
- B. Access is determined by the system.
- C. Access is based on user's role.
- D. Access is based on data sensitivity.

Answer: C

Question: 427

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

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

Answer: B

Question: 428

DRAG DROP

Order the below steps to create an effective vulnerability management process.

Step

Order

Identify risks		1
Implement patch deployment		2
Implement recurring scanning schedule		3
Identify assets		4
Implement change management		5

Answer:

Identify assets	1
Identify risks	2
Implement change management	3
Implement patch deployment	4
Implement recurring scanning schedule	5

Question: 429

Which of the following types of security testing is the MOST effective in providing a better indication

of the everyday security challenges of an organization when performing a security risk assessment?

- A. External
- B. Overt
- C. Internal
- D. Covert

Answer: D

Question: 430

What is the MOST effective method of testing custom application code?

- A. Negative testing
- B. White box testing
- C. Penetration testing
- D. Black box testing

Answer: B

Question: 431

Which one of the following is a common risk with network configuration management?

- A. Patches on the network are difficult to keep current.
- B. It is the responsibility of the systems administrator.
- C. User ID and passwords are never set to expire.
- D. Network diagrams are not up to date.

Answer: D

Question: 432

What type of test assesses a Disaster Recovery (DR) plan using realistic disaster scenarios while maintaining minimal impact to business operations?

- A. Parallel
- B. Walkthrough
- C. Simulation
- D. Tabletop

Answer: C

Question: 433

How can lessons learned from business continuity training and actual recovery incidents BEST be used?

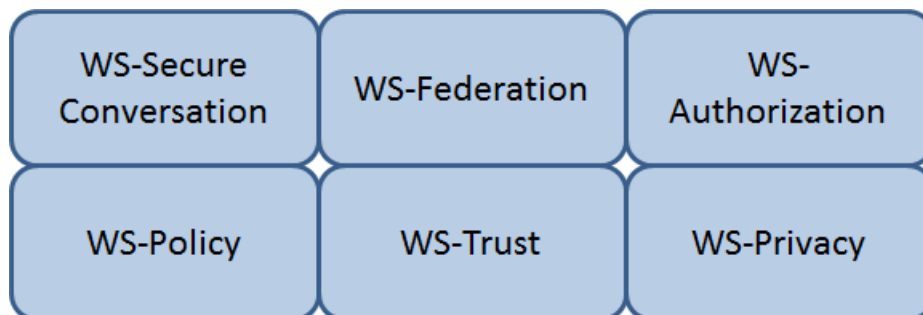
- A. As a means for improvement
- B. As alternative options for awareness and training
- C. As indicators of a need for policy
- D. As business function gap indicators

Answer: A

Question: 434

HOT SPOT

Which Web Services Security (WS-Security) specification handles the management of security tokens and the underlying policies for granting access? Click on the correct specification in the image below.



Answer:

WS-Authorization

Explanation:

Reference: Java Web Services: Up and Running” By Martin Kalin page 228

Question: 435

Which of the following is the PRIMARY issue when collecting detailed log information?

- A. Logs may be unavailable when required

- B. Timely review of the data is potentially difficult
- C. Most systems and applications do not support logging
- D. Logs do not provide sufficient details of system and individual activities

Answer: B

Question: 436

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

Answer: A

Question: 437

Which of the following command line tools can be used in the reconnaissance phase of a network vulnerability assessment?

- A. dig
- B. ipconfig
- C. ifconfig
- D. nbstat

Answer: A

Question: 438

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

Answer: A

Question: 439

Which Radio Frequency Interference (RFI) phenomenon associated with bundled cable runs can create information leakage?

- A. Transference
- B. Covert channel
- C. Bleeding
- D. Cross-talk

Answer: D

Question: 440

An organization's information security strategic plan MUST be reviewed

- A. whenever there are significant changes to a major application.
- B. quarterly, when the organization's strategic plan is updated.
- C. whenever there are major changes to the business.
- D. every three years, when the organization's strategic plan is updated.

Answer: C

Question: 441

When building a data classification scheme, which of the following is the PRIMARY concern?

- A. Purpose
- B. Cost effectiveness
- C. Availability
- D. Authenticity

Answer: D

Question: 442

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

Answer: C

Question: 443

What is an advantage of Elliptic Curve Cryptography (ECC)?

- A. Cryptographic approach that does not require a fixed-length key
- B. Military-strength security that does not depend upon secrecy of the algorithm
- C. Opportunity to use shorter keys for the same level of security
- D. Ability to use much longer keys for greater security

Answer: C

Question: 444

Backup information that is critical to the organization is identified through a

- A. Vulnerability Assessment (VA).
- B. Business Continuity Plan (BCP).
- C. Business Impact Analysis (BIA).
- D. data recovery analysis.

Answer: D

Question: 445

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

Answer: B

Question: 446

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.

Answer: A

Question: 447

Knowing the language in which an encrypted message was originally produced might help a cryptanalyst to perform a

- A. clear-text attack.
- B. known cipher attack.
- C. frequency analysis.
- D. stochastic assessment.

Answer: C

Question: 448

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.

Answer: A

Question: 449

When evaluating third-party applications, which of the following is the GREATEST responsibility of Information Security?

- A. Accept the risk on behalf of the organization.
- B. Report findings to the business to determine security gaps.
- C. Quantify the risk to the business for product selection.
- D. Approve the application that best meets security requirements.

Answer: C

Question: 450

An employee of a retail company has been granted an extended leave of absence by Human Resources (HR). This information has been formally communicated to the access provisioning team. Which of the following is the BEST action to take?

- A. Revoke access temporarily.
- B. Block user access and delete user account after six months.
- C. Block access to the offices immediately.
- D. Monitor account usage temporarily.

Answer: D

Question: 451

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

Answer: C

Question: 452

An organization publishes and periodically updates its employee policies in a file on their intranet. Which of the following is a PRIMARY security concern?

- A. Ownership
- B. Confidentiality
- C. Availability
- D. Integrity

Answer: C

Question: 453

What does the Maximum Tolerable Downtime (MTD) determine?

- A. The estimated period of time a business critical database can remain down before customers are affected.

- B. The fixed length of time a company can endure a disaster without any Disaster Recovery (DR) planning
- C. The estimated period of time a business can remain interrupted beyond which it risks never recovering
- D. The fixed length of time in a DR process before redundant systems are engaged

Answer: C

Question: 454

What is a characteristic of Secure Socket Layer (SSL) and Transport Layer Security (TLS)?

- A. SSL and TLS provide a generic channel security mechanism on top of Transmission Control Protocol (TCP).
- B. SSL and TLS provide nonrepudiation by default.
- C. SSL and TLS do not provide security for most routed protocols.
- D. SSL and TLS provide header encapsulation over HyperText Transfer Protocol (HTTP).

Answer: A

Question: 455

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)

Answer: C

Question: 456

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

Answer: C

Question: 457

Which of the following BEST represents the concept of least privilege?

- A. Access to an object is denied unless access is specifically allowed.
- 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).

Answer: A

Question: 458

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

Answer: B

Question: 459

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

Answer: D

Question: 460

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.

Answer: D

Question: 461

Which of the following BEST describes Recovery Time Objective (RTO)?

- A. Time of application resumption after disaster
- B. Time of application verification after disaster.
- C. Time of data validation after disaster.
- D. Time of data restoration from backup after disaster.

Answer: A

Question: 462

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.

Answer: B

Question: 463

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

Answer: A

Question: 464

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.

Answer: B

Question: 465

Which of the following is a weakness of Wired Equivalent Privacy (WEP)?

- A. Length of Initialization Vector (IV)
- B. Protection against message replay
- C. Detection of message tampering
- D. Built-in provision to rotate keys

Answer: A

Question: 466

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

Answer: C

Question: 467

Which of the following is the MAIN reason for using configuration management?

- A. To provide centralized administration
- B. To reduce the number of changes
- C. To reduce errors during upgrades
- D. To provide consistency in security controls

Answer: D

Question: 468

Which of the following is BEST suited for exchanging authentication and authorization messages in a multi-party decentralized environment?

- A. Lightweight Directory Access Protocol (LDAP)
- B. Security Assertion Markup Language (SAML)
- C. Internet Mail Access Protocol
- D. Transport Layer Security (TLS)

Answer: B

Question: 469

Which of the following is MOST important when deploying digital certificates?

- A. Validate compliance with X.509 digital certificate standards
- B. Establish a certificate life cycle management framework
- C. Use a third-party Certificate Authority (CA)
- D. Use no less than 256-bit strength encryption when creating a certificate

Answer: B

Question: 470

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

Answer: A

Question: 471

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.

Answer: B

Question: 472

Which of the following is the MOST important consideration when developing a Disaster Recovery Plan (DRP)?

- A. The dynamic reconfiguration of systems
- B. The cost of downtime
- C. A recovery strategy for all business processes
- D. A containment strategy

Answer: C

Question: 473

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

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

Answer: D

Question: 474

Which of the following restricts the ability of an individual to carry out all the steps of a particular process?

- A. Job rotation
- B. Separation of duties
- C. Least privilege
- D. Mandatory vacations

Answer: B

Question: 475

Although code using a specific program language may not be susceptible to a buffer overflow attack,

- A. most calls to plug-in programs are susceptible.
- B. most supporting application code is susceptible.
- C. the graphical images used by the application could be susceptible.
- D. the supporting virtual machine could be susceptible.

Answer: C

Question: 476

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)

Answer: D

Question: 477

Which of the following are effective countermeasures against passive network-layer attacks?

- A. Federated security and authenticated access controls
- B. Trusted software development and run time integrity controls
- C. Encryption and security enabled applications
- D. Enclave boundary protection and computing environment defense

Answer: C

Question: 478

What is the MOST important element when considering the effectiveness of a training program for Business Continuity (BC) and Disaster Recovery (DR)?

- A. Management support
- B. Consideration of organizational need
- C. Technology used for delivery
- D. Target audience

Answer: B

Question: 479

DRAG DROP

Match the name of access control model with its associated restriction.

Drag each access control model to its appropriate restriction access on the right.

Access Control Model	Restrictions
Mandatory Access Control – End user cannot set controls	End user cannot set controls
Discretionary Access Control (DAC) – Subject has total control over objects	Subject has total control over objects
Role Based Access Control (RBAC) – Dynamically assigns roles permissions to particular duties based on job function	Dynamically assigns roles permissions to particular duties based on job function
Rule Based access control – Dynamically assigns roles to subjects based on criteria assigned by a custodian.	Dynamically assigns roles to subjects based on criteria assigned by a custodian
Rule based access control	

Answer:

Question: 480

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.

Answer: D

Question: 481

Which of the following is the MOST important goal of information asset valuation?

- A. Developing a consistent and uniform method of controlling access on information assets
- B. Developing appropriate access control policies and guidelines
- C. Assigning a financial value to an organization's information assets
- D. Determining the appropriate level of protection

Answer: D

Question: 482

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

Answer: B

Question: 483

Which one of the following activities would present a significant security risk to organizations when employing a Virtual Private Network (VPN) solution?

- A. VPN bandwidth
- B. Simultaneous connection to other networks
- C. Users with Internet Protocol (IP) addressing conflicts
- D. Remote users with administrative rights

Answer: B

Question: 484

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.

Answer: A

Question: 485

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

Answer: D

Question: 486

Which of the following is the PRIMARY reason to perform regular vulnerability scanning of an organization network?

- A. Provide vulnerability reports to management.
- B. Validate vulnerability remediation activities.
- C. Prevent attackers from discovering vulnerabilities.
- D. Remediate known vulnerabilities.

Answer: B

Question: 487

Which of the following would BEST describe the role directly responsible for data within an organization?

- A. Data custodian
- B. Information owner
- C. Database administrator
- D. Quality control

Answer: A

Question: 488

The restoration priorities of a Disaster Recovery Plan (DRP) are based on which of the following documents?

- A. Service Level Agreement (SLA)
- B. Business Continuity Plan (BCP)
- C. Business Impact Analysis (BIA)
- D. Crisis management plan

Answer: B

Question: 489

The PRIMARY outcome of a certification process is that it provides documented

- A. interconnected systems and their implemented security controls.
- B. standards for security assessment, testing, and process evaluation.
- C. system weakness for remediation.
- D. security analyses needed to make a risk-based decision.

Answer: D

Question: 490

A security architect plans to reference a Mandatory Access Control (MAC) model for implementation. This indicates that which of the following properties are being prioritized?

- A. Confidentiality
- B. Integrity
- C. Availability
- D. Accessibility

Answer: C

Question: 491

A vulnerability in which of the following components would be MOST difficult to detect?

- A. Kernel
- B. Shared libraries
- C. Hardware
- D. System application

Answer: A

Question: 492

During which of the following processes is least privilege implemented for a user account?

- A. Provision
- B. Approve
- C. Request
- D. Review

Answer: A

Question: 493

Which of the following is a document that identifies each item seized in an investigation, including date and time seized, full name and signature or initials of the person who seized the item, and a detailed description of the item?

- A. Property book
- B. Chain of custody form
- C. Search warrant return
- D. Evidence tag

Answer: D

Question: 494

Which of the following is needed to securely distribute symmetric cryptographic keys?

- A. Officially approved Public-Key Infrastructure (PKI) Class 3 or Class 4 certificates
- B. Officially approved and compliant key management technology and processes
- C. An organizationally approved communication protection policy and key management plan
- D. Hardware tokens that protect the user's private key.

Answer: C

Question: 495

Reciprocal backup site agreements are considered to be

- A. a better alternative than the use of warm sites.
- B. difficult to test for complex systems.
- C. easy to implement for similar types of organizations.
- D. easy to test and implement for complex systems.

Answer: B

Question: 496

In which identity management process is the subject's identity established?

- A. Trust
- B. Provisioning

- C. Authorization
- D. Enrollment

Answer: D

Question: 497

In order to assure authenticity, which of the following are required?

- A. Confidentiality and authentication
- B. Confidentiality and integrity
- C. Authentication and non-repudiation
- D. Integrity and non-repudiation

Answer: D

Question: 498

At which layer of the Open Systems Interconnect (OSI) model are the source and destination address for a datagram handled?

- A. Transport Layer
- B. Data-Link Layer
- C. Network Layer
- D. Application Layer

Answer: C

Question: 499

An organization regularly conducts its own penetration tests. Which of the following scenarios MUST be covered for the test to be effective?

- A. Third-party vendor with access to the system
- B. System administrator access compromised
- C. Internal attacker with access to the system
- D. Internal user accidentally accessing data

Answer: C

Question: 500

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

Answer: A

Question: 501

What is the difference between media marking and media labeling?

- A. Media marking refers to the use of human-readable security attributes, while media labeling refers to the use of security attributes in internal data structures.
- B. Media labeling refers to the use of human-readable security attributes, while media marking refers to the use of security attributes in internal data structures.
- C. Media labeling refers to security attributes required by public policy/law, while media marking refers to security required by internal organizational policy.
- D. Media marking refers to security attributes required by public policy/law, while media labeling refers to security attributes required by internal organizational policy.

Answer: D

Question: 502

What balance MUST be considered when web application developers determine how informative application error messages should be constructed?

- A. Risk versus benefit
- B. Availability versus auditability
- C. Confidentiality versus integrity
- D. Performance versus user satisfaction

Answer: A

Question: 503

NO: 130

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

Answer: B

Question: 504

Which of the following is a characteristic of the initialization vector when using Data Encryption Standard (DES)?

- A. It must be known to both sender and receiver.
- B. It can be transmitted in the clear as a random number.
- C. It must be retained until the last block is transmitted.
- D. It can be used to encrypt and decrypt information.

Answer: B

Question: 505

DRAG DROP

Match the access control type to the example of the control type. Drag each access control type net to its corresponding example.

<u>Access Control Type</u>		<u>Example</u>
Administrative		Labeling of sensitive data
Technical		Biometrics for authentication
Logical		Constrained user interface
Physical		Radio Frequency Identification (RFID) badge

Answer:

Administrative – labeling of sensitive data
Technical – Constrained user interface
Logical – Biometrics for authentication
Physical – Radio Frequency Identification (RFID) badge

Question: 506

In general, servers that are facing the Internet should be placed in a demilitarized zone (DMZ). What is MAIN purpose of the DMZ?

- A. Reduced risk to internal systems.
- B. Prepare the server for potential attacks.
- C. Mitigate the risk associated with the exposed server.
- D. Bypass the need for a firewall.

Answer: A

Question: 507

Network-based logging has which advantage over host-based logging when reviewing malicious activity about a victim machine?

- A. Addresses and protocols of network-based logs are analyzed.
- B. Host-based system logging has files stored in multiple locations.
- C. Properly handled network-based logs may be more reliable and valid.
- D. Network-based systems cannot capture users logging into the console.

Answer: A

Question: 508

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.

Answer: D

Question: 509

Between which pair of Open System Interconnection (OSI) Reference Model layers are routers used

as a communications device?

- A. Transport and Session
- B. Data-Link and Transport
- C. Network and Session
- D. Physical and Data-Link

Answer: B

Question: 510

Which type of security testing is being performed when an ethical hacker has no knowledge about the target system but the testing target is notified before the test?

- A. Reversal
- B. Gray box
- C. Blind
- D. White box

Answer: B

Question: 511

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

Answer: C

Question: 512

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

Answer: B

Question: 513

Which of the following adds end-to-end security inside a Layer 2 Tunneling Protocol (L2TP) Internet Protocol Security (IPSec) connection?

- A. Temporal Key Integrity Protocol (TKIP)
- B. Secure Hash Algorithm (SHA)
- C. Secure Shell (SSH)
- D. Transport Layer Security (TLS)

Answer: B

Question: 514

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

Answer: A

Question: 515

In the Software Development Life Cycle (SDLC), maintaining accurate hardware and software inventories is a critical part of

- A. systems integration.
- B. risk management.
- C. quality assurance.
- D. change management.

Answer: D

Question: 516

As a best practice, the Security Assessment Report (SAR) should include which of the following sections?

- A. Data classification policy
- B. Software and hardware inventory
- C. Remediation recommendations
- D. Names of participants

Answer: B

Question: 517

The application of a security patch to a product previously validate at Common Criteria (CC) Evaluation Assurance Level (EAL) 4 would

- A. require an update of the Protection Profile (PP).
- B. require recertification.
- C. retain its current EAL rating.
- D. reduce the product to EAL 3.

Answer: B

Question: 518

Which of the following media sanitization techniques is MOST likely to be effective for an organization using public cloud services?

- A. Low-level formatting
- B. Secure-grade overwrite erasure
- C. Cryptographic erasure
- D. Drive degaussing

Answer: B

Question: 519

What type of wireless network attack BEST describes an Electromagnetic Pulse (EMP) attack?

- A. Radio Frequency (RF) attack
- B. Denial of Service (DoS) attack
- C. Data modification attack
- D. Application-layer attack

Answer: B

Question: 520

DRAG DROP

Match the types of e-authentication tokens to their description.

Drag each e-authentication token on the left to its corresponding description on the right.

E-Authentication Token	Description
Memorized Secret Token	A physical or electronic token that stores a set of secrets between the claimant and the credential service provider
Out-of-Band Token	A physical token that is uniquely addressable and can receive a verifier-selected secret for one-time use
Look-up Secret Token	A series of responses to a set of prompts or challenges established by the subscriber and credential service provider during the registration process
Pre-registered Knowledge Token	A secret shared between the subscriber and credential service provider that is typically character strings

Answer:

Look-up secret token - A physical or electronic token that stores a set of secrets between the claimant and the credential service provider

Out-of-Band Token - A physical token that is uniquely addressable and can receive a verifier-selected secret for one-time use

Pre-registered Knowledge Token - A series of responses to a set of prompts or challenges established by the subscriber and credential service provider during the registration process

Memorized Secret Token - A secret shared between the subscriber and credential service provider that is typically character strings

Question: 521

Which of the following is a remote access protocol that uses a static authentication?

- A. Point-to-Point Tunneling Protocol (PPTP)
- B. Routing Information Protocol (RIP)
- C. Password Authentication Protocol (PAP)
- D. Challenge Handshake Authentication Protocol (CHAP)

Answer: C

Question: 522

Which of the following sets of controls should allow an investigation if an attack is not blocked by

preventive controls or detected by monitoring?

- A. Logging and audit trail controls to enable forensic analysis
- B. Security incident response lessons learned procedures
- C. Security event alert triage done by analysts using a Security Information and Event Management (SIEM) system
- D. Transactional controls focused on fraud prevention

Answer: C

Question: 523

Determining outage costs caused by a disaster can BEST be measured by the

- A. cost of redundant systems and backups.
- B. cost to recover from an outage.
- C. overall long-term impact of the outage.
- D. revenue lost during the outage.

Answer: C

Question: 524

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

Answer: B

Question: 525

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.

Answer: D

Question: 526

Who has the PRIMARY responsibility to ensure that security objectives are aligned with organization goals?

- A. Senior management
- B. Information security department
- C. Audit committee
- D. All users

Answer: C

Question: 527

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

Answer: C

Question: 528

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.

Answer: B

Question: 529

Which of the following is the MOST important part of an awareness and training plan to prepare employees for emergency situations?

- A. Having emergency contacts established for the general employee population to get information
- B. Conducting business continuity and disaster recovery training for those who have a direct role in the recovery
- C. Designing business continuity and disaster recovery training programs for different audiences
- D. Publishing a corporate business continuity and disaster recovery plan on the corporate website

Answer: C

Question: 530

What is the process of removing sensitive data from a system or storage device with the intent that the data cannot be reconstructed by any known technique?

- A. Purging
- B. Encryption
- C. Destruction
- D. Clearing

Answer: A

Question: 531

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

Answer: C

Question: 532

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

Answer: B

Question: 533

DRAG DROP

Drag the following Security Engineering terms on the left to the BEST definition on the right.

Security Engineering Term

Definition

Risk

A measure of the extent to which an entity is threatened by a potential circumstance or event, the adverse impacts that would arise if the circumstance or event occurs, and the likelihood of

Security Risk Treatment

The method used to identify the confidentiality, integrity, and availability requirements for organizational and system assets and to characterize the adverse impact or consequences should the asset be lost, modified, degraded, disrupted, compromised, or become unavailable.

Protection Needs Assessment

The method used to identify and characterize the dangers anticipated throughout the life cycle of the system.

Threat Assessment

The method used to identify feasible security risk mitigation options and plans.

Answer:

Security Engineering Term

Definition

Risk

A measure of the extent to which an entity is threatened by a potential circumstance or event, the adverse impacts that would arise if the circumstance or event occurs, and the likelihood of

Protection Needs Assessment

The method used to identify the confidentiality, integrity, and availability requirements for organizational and system assets and to characterize the adverse impact or consequences should the asset be lost, modified, degraded, disrupted, compromised, or become unavailable.

Threat Assessment

The method used to identify and characterize the dangers anticipated throughout the life cycle of the system.

Security Risk Treatment

The method used to identify feasible security risk mitigation options and plans.

Explanation:

Risk - A measure of the extent to which an entity is threatened by a potential circumstance of event, the adverse impacts that would arise if the circumstance or event occurs, and the likelihood of occurrence.

Protection Needs Assessment - The method used to identify the confidentiality, integrity, and availability requirements for organizational and system assets and to characterize the adverse impact or consequences should be asset be lost, modified, degraded, disrupted, compromised, or become unavailable.

Threat assessment - The method used to identify and characterize the dangers anticipated throughout the life cycle of the system.

Security Risk Treatment - The method used to identify feasible security risk mitigation options and plans.

Question: 534

Which of the following is the BEST reason for the use of security metrics?

- A. They ensure that the organization meets its security objectives.
- B. They provide an appropriate framework for Information Technology (IT) governance.
- C. They speed up the process of quantitative risk assessment.
- D. They quantify the effectiveness of security processes.

Answer: B

Question: 535

Which of the following is a benefit in implementing an enterprise Identity and Access Management (IAM) solution?

- A. Password requirements are simplified.
- B. Risk associated with orphan accounts is reduced.
- C. Segregation of duties is automatically enforced.
- D. Data confidentiality is increased.

Answer: A

Question: 536

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%

Answer: A

Question: 537

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

Answer: B

Question: 538

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

Answer: C

Question: 539

When determining who can accept the risk associated with a vulnerability, which of the following is MOST important?

- A. Countermeasure effectiveness
- B. Type of potential loss
- C. Incident likelihood
- D. Information ownership

Answer: C

Question: 540

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

Answer: D

Question: 541

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

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

Answer: C

Question: 542

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

Answer: B

Question: 543

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

Answer: C

Question: 544

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

Answer: A

Question: 545

When network management is outsourced to third parties, which of the following is the MOST effective method of protecting critical data assets?

- A. Log all activities associated with sensitive systems
- B. Provide links to security policies
- C. Confirm that confidentiality agreements are signed
- D. Employ strong access controls

Answer: D

Question: 546

Which of the following is the MOST appropriate action when reusing media that contains sensitive data?

- A. Erase
- B. Sanitize
- C. Encrypt
- D. Degauss

Answer: B

Question: 547

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

Answer: A

Question: 548

Which of the following methods of suppressing a fire is environmentally friendly and the MOST appropriate for a data center?

- A. Inert gas fire suppression system
- B. Halon gas fire suppression system
- C. Dry-pipe sprinklers
- D. Wet-pipe sprinklers

Answer: C

Question: 549

Unused space in a disk cluster is important in media analysis because it may contain which of the following?

- A. Residual data that has not been overwritten
- B. Hidden viruses and Trojan horses
- C. Information about the File Allocation table (FAT)
- D. Information about patches and upgrades to the system

Answer: A

Question: 550

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

Answer: A

Question: 551

Which of the following is MOST appropriate for protecting confidentiality of data stored on a hard drive?

- A. Triple Data Encryption Standard (3DES)
- B. Advanced Encryption Standard (AES)
- C. Message Digest 5 (MD5)
- D. Secure Hash Algorithm 2 (SHA-2)

Answer: B

Question: 552

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

Answer: B

Question: 553

What is the MOST significant benefit of an application upgrade that replaces randomly generated session keys with certificate based encryption for communications with backend servers?

- A. Non-repudiation
- B. Efficiency
- C. Confidentiality
- D. Privacy

Answer: A

Question: 554

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
- D. Encrypt removable USB devices containing data at rest

Answer: C

Question: 555

Which of the following MUST be in place to recognize a system attack?

- A. Stateful firewall
- B. Distributed antivirus
- C. Log analysis
- D. Passive honeypot

Answer: A

Question: 556

Which of the following is the GREATEST benefit of implementing a Role Based Access Control (RBAC) system?

- A. Integration using Lightweight Directory Access Protocol (LDAP)
- B. Form-based user registration process
- C. Integration with the organizations Human Resources (HR) system
- D. A considerably simpler provisioning process

Answer: D

Question: 557

Which Identity and Access Management (IAM) process can be used to maintain the principle of least privilege?

- A. identity provisioning
- B. access recovery
- C. multi-factor authentication (MFA)
- D. user access review

Answer: A

Question: 558

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)

Answer: A

Question: 559

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.

Answer: C

Question: 560

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

Answer: C

Question: 561

Why is planning in Disaster Recovery (DR) an interactive process?

- A. It details off-site storage plans
- B. It identifies omissions in the plan
- C. It defines the objectives of the plan
- D. It forms part of the awareness process

Answer: B

Question: 562

Mandatory Access Controls (MAC) are based on:

- A. security classification and security clearance
- B. data segmentation and data classification
- C. data labels and user access permissions
- D. user roles and data encryption

Answer: A

Question: 563

In Disaster Recovery (DR) and Business Continuity (DC) training, which BEST describes a functional drill?

- A. a functional evacuation of personnel
- B. a specific test by response teams of individual emergency response functions
- C. an activation of the backup site
- D. a full-scale simulation of an emergency and the subsequent response functions.

Answer: D

Question: 564

What is the foundation of cryptographic functions?

- A. Encryption
- B. Cipher
- C. Hash
- D. Entropy

Answer: A

Question: 565

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?

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

Answer: D

Question: 566

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

Answer: A

Question: 567

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

Answer: A

Question: 568

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

Answer: A

Question: 569

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

Answer: A

Question: 570

Which of the following is part of a Trusted Platform Module (TPM)?

- A. A non-volatile tamper-resistant storage for storing both data and signing keys in a secure fashion
- B. A protected Pre-Basic Input/Output System (BIOS) which specifies a method or a metric for "measuring" the state of a computing platform
- C. A secure processor targeted at managing digital keys and accelerating digital signing
- D. A platform-independent software interface for accessing computer functions

Answer: A

Question: 571

In a change-controlled environment, which of the following is MOST likely to lead to unauthorized changes to production programs?

- A. Modifying source code without approval
- B. Promoting programs to production without approval
- C. Developers checking out source code without approval
- D. Developers using Rapid Application Development (RAD) methodologies without approval

Answer: B

Question: 572

Which of the following combinations would MOST negatively affect availability?

- A. Denial of Service (DoS) attacks and outdated hardware
- B. Unauthorized transactions and outdated hardware
- C. Fire and accidental changes to data
- D. Unauthorized transactions and denial of service attacks

Answer: A

Question: 573

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

- A. 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.

Answer: B

Question: 574

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

Answer: C

Question: 575

Which of the following is a characteristic of an internal audit?

- A. An internal audit is typically shorter in duration than an external audit.
- B. The internal audit schedule is published to the organization well in advance.
- C. The internal auditor reports to the Information Technology (IT) department
- D. Management is responsible for reading and acting upon the internal audit results

Answer: D

Question: 576

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

Answer: A

Question: 577

What is the MAIN goal of information security awareness and training?

- A. To inform users of the latest malware threats
- B. To inform users of information assurance responsibilities
- C. To comply with the organization information security policy
- D. To prepare students for certification

Answer: B

Question: 578

Proven application security principles include which of the following?

- A. Minimizing attack surface area
- B. Hardening the network perimeter
- C. Accepting infrastructure security controls
- D. Developing independent modules

Answer: A

Question: 579

When developing a business case for updating a security program, the security program owner MUST do which of the following?

- A. Identify relevant metrics
- B. Prepare performance test reports
- C. Obtain resources for the security program
- D. Interview executive management

Answer: A

Question: 580

From a security perspective, which of the following assumptions MUST be made about input to an application?

- A. It is tested
- B. It is logged
- C. It is verified
- D. It is untrusted

Answer: D

Question: 581

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

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

Answer: A

Question: 582

What is the PRIMARY goal of fault tolerance?

- A. Elimination of single point of failure
- B. Isolation using a sandbox
- C. Single point of repair
- D. Containment to prevent propagation

Answer: A

Question: 583

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)

Answer: B

Question: 584

Which one of the following data integrity models assumes a lattice of integrity levels?

- A. Take-Grant
- B. Biba
- C. Harrison-Ruzzo
- D. Bell-LaPadula

Answer: B

Question: 585

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

Answer: A

Question: 586

Which of the following is BEST achieved through the use of eXtensible Access Markup Language (XACML)?

- A. Minimize malicious attacks from third parties
- B. Manage resource privileges
- C. Share digital identities in hybrid cloud
- D. Defined a standard protocol

Answer: D

Question: 587

An organization has discovered that users are visiting unauthorized websites using anonymous proxies.

Which of the following is the BEST way to prevent future occurrences?

- A. Remove the anonymity from the proxy
- B. Analyze Internet Protocol (IP) traffic for proxy requests
- C. Disable the proxy server on the firewall
- D. Block the Internet Protocol (IP) address of known anonymous proxies

Answer: C

Question: 588

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.

Answer: D

Question: 589

Within the company, desktop clients receive Internet Protocol (IP) address over Dynamic Host Configuration

Protocol (DHCP).

Which of the following represents a valid measure to help protect the network against unauthorized access?

- A. Implement path management
- B. Implement port based security through 802.1x
- C. Implement DHCP to assign IP address to server systems
- D. Implement change management

Answer: B

Question: 590

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

Answer: C

Question: 591

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

Answer: B

Question: 592

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

Answer: B

Question: 593

A Denial of Service (DoS) attack on a syslog server exploits weakness in which of the following protocols?

- A. Point-to-Point Protocol (PPP) and Internet Control Message Protocol (ICMP)
- B. Transmission Control Protocol (TCP) and User Datagram Protocol (UDP)
- C. Address Resolution Protocol (ARP) and Reverse Address Resolution Protocol (RARP)
- D. Transport Layer Security (TLS) and Secure Sockets Layer (SSL)

Answer: B

Question: 594

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.

Answer: C

Question: 595

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)

Answer: D

Question: 596

The MAIN use of Layer 2 Tunneling Protocol (L2TP) is to tunnel data

- A. through a firewall at the Session layer
- B. through a firewall at the Transport layer
- C. in the Point-to-Point Protocol (PPP)
- D. in the Payload Compression Protocol (PCP)

Answer: C

Question: 597

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)

Answer: B

Question: 598

“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

Answer: A

Question: 599

Which of the following provides the MOST comprehensive filtering of Peer-to-Peer (P2P) traffic?

- A. Application proxy
- B. Port filter
- C. Network boundary router
- D. Access layer switch

Answer: A

Question: 600

What can happen when an Intrusion Detection System (IDS) is installed inside a firewall-protected internal network?

- A. The IDS can detect failed administrator login attempts from servers.
- B. The IDS can increase the number of packets to analyze.
- C. The firewall can increase the number of packets to analyze.
- D. The firewall can detect failed administrator login attempts from servers

Answer: A

Question: 601

A security practitioner is tasked with securing the organization's Wireless Access Points (WAP). Which of these is the MOST effective way of restricting this environment to authorized users?

- A. Enable Wi-Fi Protected Access 2 (WPA2) encryption on the wireless access point
- B. Disable the broadcast of the Service Set Identifier (SSID) name
- C. Change the name of the Service Set Identifier (SSID) to a random value not associated with the organization
- D. Create Access Control Lists (ACL) based on Media Access Control (MAC) addresses

Answer: D

Question: 602

Access to which of the following is required to validate web session management?

- A. Log timestamp
- B. Live session traffic
- C. Session state variables
- D. Test scripts

Answer: C

Question: 603

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

Answer: D

Question: 604

Digital certificates used in Transport Layer Security (TLS) support which of the following?

- A. Information input validation
- B. Non-repudiation controls and data encryption
- C. Multi-Factor Authentication (MFA)
- D. Server identity and data confidentiality

Answer: D

Question: 605

During examination of Internet history records, the following string occurs within a Unique Resource Locator (URL):

http://www.companysite.com/products/products.asp?productid=123 or
1=1 What type of attack does this indicate?

- A. Directory traversal
- B. Structured Query Language (SQL) injection
- C. Cross-Site Scripting (XSS)
- D. Shellcode injection

Answer: C

Question: 606

The core component of Role Based Access Control (RBAC) must be constructed of defined data elements.

Which elements are required?

- A. Users, permissions, operations, and protected objects
- B. Roles, accounts, permissions, and protected objects
- C. Users, roles, operations, and protected objects
- D. Roles, operations, accounts, and protected objects

Answer: C

Question: 607

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

Answer: D

Question: 608

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

Answer: B

Question: 609

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

- A. Provisioning
- B. Review

- C.Approval
- D.Revocation

Answer: B

Question: 610

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)

Answer: D

Question: 611

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

Answer: A

Question: 612

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)

Answer: A

Question: 613

Extensible Authentication Protocol-Message Digest 5 (EAP-MD5) only provides which of the following?

- A. Mutual authentication
- B. Server authentication
- C. User authentication
- D. Streaming ciphertext data

Answer: C

Question: 614

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

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

Answer: A

Question: 615

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

Answer: B

Question: 616

Which of the following would BEST support effective testing of patch compatibility when patches are applied to an organization's systems?

- A. Standardized configurations for devices
- B. Standardized patch testing equipment
- C. Automated system patching
- D. Management support for patching

Answer: A

Section: Security Assessment and Testing

Question: 617

An international medical organization with headquarters in the United States (US) and branches in France wants to test a drug in both countries. What is the organization allowed to do with the test subject's data?

- A. Aggregate it into one database in the US
- B. Process it in the US, but store the information in France
- C. Share it with a third party
- D. Anonymize it and process it in the US

Answer: C

Section: Security Assessment and Testing

Question: 618

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

Answer: D

Section: Security Assessment and Testing

Question: 619

Assessing a third party's risk by counting bugs in the code may not be the best measure of an attack surface within the supply chain.
Which of the following is LEAST associated with the attack surface?

- A. Input protocols
- B. Target processes
- C. Error messages
- D. Access rights

Answer: C

Section: Security Assessment and Testing

Question: 620

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

Answer: A

Section: Security Assessment and Testing

Question: 621

After following the processes defined within the change management plan, a super user has upgraded a device within an Information system.

What step would be taken to ensure that the upgrade did NOT affect the network security posture?

- A. Conduct an Assessment and Authorization (A&A)
- B. Conduct a security impact analysis
- C. Review the results of the most recent vulnerability scan
- D. Conduct a gap analysis with the baseline configuration

Answer: B

Section: Security Assessment and Testing

Question: 622

DRAG DROP

What is the correct order of steps in an information security assessment?

Place the information security assessment steps on the left next to the numbered boxes on the right in the correct order.

Actions

Define the perimeter.

Identify the vulnerability.

Assess the risk.

Determine the actions.

Steps

Step 1

Step 2

Step 3

Step 4

Answer:

Actions

Define the perimeter.

Identify the vulnerability.

Assess the risk.

Determine the actions.

Identify the vulnerability.

Define the perimeter.

Assess the risk.

Determine the actions.

Question: 623

What MUST each information owner do when a system contains data from multiple information owners?

- A. Provide input to the Information System (IS) owner regarding the security requirements of the data
- B. Review the Security Assessment report (SAR) for the Information System (IS) and authorize the IS to

operate.

C. Develop and maintain the System Security Plan (SSP) for the Information System (IS) containing the data

D. Move the data to an Information System (IS) that does not contain data owned by other information owners

Answer: C

Section: Security Assessment and Testing

Question: 624

A vulnerability assessment report has been submitted to a client. The client indicates that one third of the hosts

that were in scope are missing from the report.

In which phase of the assessment was this error MOST likely made?

A. Enumeration

B. Reporting

C. Detection

D. Discovery

Answer: A

Section: Security Assessment and Testing

Question: 625

Which of the following is a responsibility of the information owner?

A. Ensure that users and personnel complete the required security training to access the Information System (IS)

B. Defining proper access to the Information System (IS), including privileges or access rights

C. Managing identification, implementation, and assessment of common security controls

D. Ensuring the Information System (IS) is operated according to agreed upon security requirements

Answer: C

Question: 626

Who is accountable for the information within an Information System (IS)?

A. Security manager

- B. System owner
- C. Data owner
- D. Data processor

Answer: B

Section: Security Operations

Question: 627

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

Answer: A

Section: Security Operations

Question: 628

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

Answer: C

Section: Security Operations

Question: 629

Due to system constraints, a group of system administrators must share a high-level access set of credentials.

Which of the following would be MOST appropriate to implement?

- A. Increased console lockout times for failed logon attempts
- B. Reduce the group in size
- C. A credential check-out process for a per-use basis
- D. Full logging on affected systems

Answer: C

Section: Security Operations

Question: 630

Which of the following is the MOST efficient mechanism to account for all staff during a speedy nonemergency 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 exitdoor
- 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

Answer: B

Section: Security Operations

Question: 631

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)

Answer: A

Section: Security Operations

Question: 632

Who would be the BEST person to approve an organizations information security policy?

- A. Chief Information Officer (CIO)
- B. Chief Information Security Officer (CISO)
- C. Chief internal auditor

D. Chief Executive Officer (CEO)

Answer: B

Section: Security Operations

Question: 633

A security analyst for a large financial institution is reviewing network traffic related to an incident. The analyst determines the traffic is irrelevant to the investigation but in the process of the review, the analyst also finds that an applications data, which included full credit card cardholder data, is transferred in clear text between the server and user's desktop. The analyst knows this violates the Payment Card Industry Data Security Standard (PCI-DSS). Which of the following is the analyst's next step?

- A. Send the log file co-workers for peer review
- B. Include the full network traffic logs in the incident report
- C. Follow organizational processes to alert the proper teams to address the issue.
- D. Ignore data as it is outside the scope of the investigation and the analyst's role.

Answer: C

Section: Security Operations

Question: 634

An Information Technology (IT) professional attends a cybersecurity seminar on current incident response methodologies. What code of ethics canon is being observed?

- A. Provide diligent and competent service to principals
- B. Protect society, the commonwealth, and the infrastructure
- C. Advance and protect the profession
- D. Act honorable, honesty, justly, responsibly, and legally

Answer: C

Section: Security Operations

Question: 635

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

- A. Perform a compliance review

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

Answer: B

Section: Security Operations

Question: 636

What is the MAIN purpose of a change management policy?

- A. To assure management that changes to the Information Technology (IT) infrastructure are necessary
- B. To identify the changes that may be made to the Information Technology (IT) infrastructure
- C. To verify that changes to the Information Technology (IT) infrastructure are approved
- D. To determine the necessary for implementing modifications to the Information Technology (IT) infrastructure

Answer: C

Section: Security Operations

Question: 637

DRAG DROP

Match the functional roles in an external audit to their responsibilities. Drag each role on the left to its corresponding responsibility on the right. Select and Place:

Role		Responsibility
Executive management	<input type="text"/>	Approve audit budget and resource allocation.
Audit committee	<input type="text"/>	Provide audit oversight.
Compliance officer	<input type="text"/>	Ensure the achievement and maintenance of organizational requirements with applicable certifications.
External auditor	<input type="text"/>	Develop and maintain knowledge and subject-matter expertise relevant to the type of audit.

Answer:

<u>Responsibility</u>	
Executive management	Approve audit budget and resource allocation.
Audit committee	Provide audit oversight.
External auditor	Ensure the achievement and maintenance of organizational requirements with applicable certifications.
Compliance officer	Develop and maintain knowledge and subject-matter expertise relevant to the type of audit.

Question: 638

Who is responsible for the protection of information when it is shared with or provided to other organizations?

- A. Systems owner
- B. Authorizing Official (AO)
- C. Information owner
- D. Security officer

Answer: C

Section: Security Operations

Question: 639

Which of the following is the MOST challenging issue in apprehending cyber criminals?

- A. They often use sophisticated method to commit a crime.
- B. It is often hard to collect and maintain integrity of digital evidence.
- C. The crime is often committed from a different jurisdiction.
- D. There is often no physical evidence involved.

Answer: C

Question: 640

DRAG DROP

Match the name of access control model with its associated restriction.

Drag each access control model to its appropriate restriction access on the right.

<u>Access Control Model</u>	<u>Restrictions</u>
Mandatory Access Control	End user cannot set controls
Discretionary Access Control (DAC)	Subject has total control over objects
Role Based Access Control (RBAC)	Dynamically assigns permissions to particular duties based on job function
Rule based access control	Dynamically assigns roles to subjects based on criteria assigned by a custodian

Answer:

<u>Access Control Model</u>	<u>Restrictions</u>
Mandatory Access Control	End user cannot set controls
Discretionary Access Control (DAC)	Subject has total control over objects
Role Based Access Control (RBAC)	Dynamically assigns permissions to particular duties based on job function
Rule based access control	Dynamically assigns roles to subjects based on criteria assigned by a custodian

Question: 641

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

Answer: A

Question: 642

Which of the following steps should be performed FIRST when purchasing Commercial Off-The-Shelf (COTS) software?

- A. undergo a security assessment as part of authorization process
- B. establish a risk management strategy
- C. harden the hosting server, and perform hosting and application vulnerability scans
- D. establish policies and procedures on system and services acquisition

Answer: D

Question: 643

An organization has outsourced its financial transaction processing to a Cloud Service Provider (CSP) who will provide them with Software as a Service (SaaS). If there was a data breach who is responsible for monetary losses?

- A. The Data Protection Authority (DPA)
- B. The Cloud Service Provider (CSP)
- C. The application developers
- D. The data owner

Answer: B

Question: 644

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

Answer: D

Question: 645

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

Answer: A

Question: 646

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

Answer: B

Question: 647

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

Answer: A

Question: 648

Which of the following is the MOST important security goal when performing application interface testing?

- A. Confirm that all platforms are supported and function properly
- B. Evaluate whether systems or components pass data and control correctly to one another
- C. Verify compatibility of software, hardware, and network connections
- D. Examine error conditions related to external interfaces to prevent application details leakage

Answer: B

Question: 649

Which of the following is the MOST common method of memory protection?

- A. Compartmentalization
- B. Segmentation
- C. Error correction
- D. Virtual Local Area Network (VLAN) tagging

Answer: B

Question: 650

Attack trees are MOST useful for which of the following?

- A. Determining system security scopes
- B. Generating attack libraries
- C. Enumerating threats
- D. Evaluating Denial of Service (DoS) attacks

Answer: A

Question: 651

Which of the following techniques is known to be effective in spotting resource exhaustion problems, especially with resources such as processes, memory, and connections?

- A. Automated dynamic analysis
- B. Automated static analysis
- C. Manual code review
- D. Fuzzing

Answer: A

Question: 652

Which one of the following is an advantage of an effective release control strategy from 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

Answer: C

Question: 653

The design review for an application has been completed and is ready for release. What technique should an organization use to assure application integrity?

- A. Application authentication
- B. Input validation
- C. Digital signing
- D. Device encryption

Answer: C
