

# Isaca

## Exam Questions CISM

Certified Information Security Manager



#### NEW QUESTION 1

Which of the following is responsible for legal and regulatory liability?

- A. Chief security officer (CSO)
- B. Chief legal counsel (CLC)
- C. Board and senior management
- D. Information security steering group

**Answer: C**

#### Explanation:

The board of directors and senior management are ultimately responsible for all that happens in the organization. The others are not individually liable for failures of security in the organization.

#### NEW QUESTION 2

The FIRST step in establishing a security governance program is to:

- A. conduct a risk assessmen
- B. conduct a workshop for all end user
- C. prepare a security budge
- D. obtain high-level sponsorshi

**Answer: D**

#### Explanation:

The establishment of a security governance program is possible only with the support and sponsorship of top management since security governance projects are enterprise wide and integrated into business processes. Conducting a risk assessment, conducting a workshop for all end users and preparing a security budget all follow once high-level sponsorship is obtained.

#### NEW QUESTION 3

What would be the MOST significant security risks when using wireless local area network (LAN) technology?

- A. Man-in-the-middle attack
- B. Spoofing of data packets
- C. Rogue access point
- D. Session hijacking

**Answer: C**

#### Explanation:

A rogue access point masquerades as a legitimate access point. The risk is that legitimate users may connect through this access point and have their traffic monitored. All other choices are not dependent on the use of a wireless local area network (LAN) technology.

#### NEW QUESTION 4

Which of the following is MOST important to understand when developing a meaningful information security strategy?

- A. Regulatory environment
- B. International security standards
- C. Organizational risks
- D. Organizational goals

**Answer: D**

#### Explanation:

Alignment of security with business objectives requires an understanding of what an organization is trying to accomplish. The other choices are all elements that must be considered, but their importance is secondary and will vary depending on organizational goals.

#### NEW QUESTION 5

Which of the following would BEST ensure the success of information security governance within an organization?

- A. Steering committees approve security projects
- B. Security policy training provided to all managers
- C. Security training available to all employees on the intranet
- D. Steering committees enforce compliance with laws and regulations

**Answer: A**

#### Explanation:

The existence of a steering committee that approves all security projects would be an indication of the existence of a good governance program. Compliance with laws and regulations is part of the responsibility of the steering committee but it is not a full answer. Awareness training is important at all levels in any medium, and also an indicator of good governance. However, it must be guided and approved as a security project by the steering committee.

#### NEW QUESTION 6

Which of the following is MOST likely to be discretionary?

- A. Policies
- B. Procedures
- C. Guidelines
- D. Standards

**Answer: C**

#### Explanation:

Policies define security goals and expectations for an organization. These are defined in more specific terms within standards and procedures. Standards establish what is to be done while procedures describe how it is to be done. Guidelines provide recommendations that business management must consider in developing practices within their areas of control; as such, they are discretionary.

#### NEW QUESTION 7

From an information security manager perspective, what is the immediate benefit of clearly-defined roles and responsibilities?

- A. Enhanced policy compliance
- B. Improved procedure flows
- C. Segregation of duties
- D. Better accountability

**Answer: D**

#### Explanation:

Without well-defined roles and responsibilities, there cannot be accountability. Choice A is incorrect because policy compliance requires adequately defined accountability first and therefore is a byproduct. Choice B is incorrect because people can be assigned to execute procedures that are not well designed. Choice C is incorrect because segregation of duties is not automatic, and roles may still include conflicting duties.

#### NEW QUESTION 8

Successful implementation of information security governance will FIRST require:

- A. security awareness trainin
- B. updated security policie
- C. a computer incident management tea
- D. a security architectur

**Answer: B**

#### Explanation:

Updated security policies are required to align management objectives with security procedures; management objectives translate into policy, policy translates into procedures. Security procedures will necessitate specialized teams such as the computer incident response and management group as well as specialized tools such as the security mechanisms that comprise the security architecture. Security awareness will promote the policies, procedures and appropriate use of the security mechanisms.

#### NEW QUESTION 9

When a security standard conflicts with a business objective, the situation should be resolved by:

- A. changing the security standar
- B. changing the business objectiv
- C. performing a risk analysi
- D. authorizing a risk acceptanc

**Answer: C**

#### Explanation:

Conflicts of this type should be based on a risk analysis of the costs and benefits of allowing or disallowing an exception to the standard. It is highly improbable that a business objective could be changed to accommodate a security standard, while risk acceptance\* is a process that derives from the risk analysis.

#### NEW QUESTION 10

Which of the following BEST contributes to the development of a security governance framework that supports the maturity model concept?

- A. Continuous analysis, monitoring and feedback
- B. Continuous monitoring of the return on security investment (ROSD)
- C. Continuous risk reduction
- D. Key risk indicator (KRD) setup to security management processes

**Answer: A**

#### Explanation:

To improve the governance framework and achieve a higher level of maturity, an organization needs to conduct continuous analysis, monitoring and feedback

compared to the current state of maturity. Return on security investment (ROSD) may show the performance result of the security-related activities; however, the result is interpreted in terms of money and extends to multiple facets of security initiatives. Thus, it may not be an adequate option. Continuous risk reduction would demonstrate the effectiveness of the security governance framework, but does not indicate a higher level of maturity. Key risk indicator (KRI) setup is a tool to be used in internal control assessment. KRI setup presents a threshold to alert management when controls are being compromised in business processes. This is a control tool rather than a maturity model support tool.

**NEW QUESTION 10**

Which of the following MOST commonly falls within the scope of an information security governance steering committee?

- A. Interviewing candidates for information security specialist positions
- B. Developing content for security awareness programs
- C. Prioritizing information security initiatives
- D. Approving access to critical financial systems

**Answer:** C

**Explanation:**

Prioritizing information security initiatives is the only appropriate item. The interviewing of specialists should be performed by the information security manager, while the developing of program content should be performed by the information security staff. Approving access to critical financial systems is the responsibility of individual system data owners.

**NEW QUESTION 14**

An organization's information security strategy should be based on:

- A. managing risk relative to business objective
- B. managing risk to a zero level and minimizing insurance premium
- C. avoiding occurrence of risks so that insurance is not required
- D. transferring most risks to insurers and saving on control cost

**Answer:** A

**Explanation:**

Organizations must manage risks to a level that is acceptable for their business model, goals and objectives. A zero-level approach may be costly and not provide the effective benefit of additional revenue to the organization. Long-term maintenance of this approach may not be cost effective. Risks vary as business models, geography, and regulatory- and operational processes change. Insurance covers only a small portion of risks and requires that the organization have certain operational controls in place.

**NEW QUESTION 16**

An IS manager has decided to implement a security system to monitor access to the Internet and prevent access to numerous sites. Immediately upon installation, employees flood the IT helpdesk with complaints of being unable to perform business functions on Internet sites. This is an example of:

- A. conflicting security controls with organizational need
- B. strong protection of information resource
- C. implementing appropriate controls to reduce risk
- D. proving information security's protective abilities

**Answer:** A

**Explanation:**

The needs of the organization were not taken into account, so there is a conflict. This example is not strong protection, it is poorly configured. Implementing appropriate controls to reduce risk is not an appropriate control as it is being used. This does not prove the ability to protect, but proves the ability to interfere with business.

**NEW QUESTION 19**

Information security governance is PRIMARILY driven by:

- A. technology constraint
- B. regulatory requirement
- C. litigation potential
- D. business strategy

**Answer:** D

**Explanation:**

Governance is directly tied to the strategy and direction of the business. Technology constraints, regulatory requirements and litigation potential are all important factors, but they are necessarily in line with the business strategy.

**NEW QUESTION 20**

A new regulation for safeguarding information processed by a specific type of transaction has come to the attention of an information security officer. The officer should FIRST:

- A. meet with stakeholders to decide how to comply
- B. analyze key risks in the compliance process

- C. assess whether existing controls meet the regulatio
- D. update the existing security/privacy polic

**Answer:** C

**Explanation:**

If the organization is in compliance through existing controls, the need to perform other work related to the regulation is not a priority. The other choices are appropriate and important; however, they are actions that are subsequent and will depend on whether there is an existing control gap.

#### NEW QUESTION 21

Who should be responsible for enforcing access rights to application data?

- A. Data owners
- B. Business process owners
- C. The security steering committee
- D. Security administrators

**Answer:** D

**Explanation:**

As custodians, security administrators are responsible for enforcing access rights to data. Data owners are responsible for approving these access rights. Business process owners are sometimes the data owners as well, and would not be responsible for enforcement. The security steering committee would not be responsible for enforcement.

#### NEW QUESTION 24

Information security policy enforcement is the responsibility of the:

- A. security steering committe
- B. chief information officer (CIO).
- C. chief information security officer (CISO).
- D. chief compliance officer (CCO).

**Answer:** C

**Explanation:**

Information security policy enforcement is the responsibility of the chief information security officer (CISO), first and foremost. The board of directors and executive management should ensure that a security policy is in line with corporate objectives. The chief information officer (CIO) and the chief compliance officer (CCO) are involved in the enforcement of the policy but are not directly responsible for it.

#### NEW QUESTION 27

Which of the following is the MOST important to keep in mind when assessing the value of information?

- A. The potential financial loss
- B. The cost of recreating the information
- C. The cost of insurance coverage
- D. Regulatory requirement

**Answer:** A

**Explanation:**

The potential for financial loss is always a key factor when assessing the value of information. Choices B, C and D may be contributors, but not the key factor.

#### NEW QUESTION 32

Investment in security technology and processes should be based on:

- A. clear alignment with the goals and objectives of the organizatio
- B. success cases that have been experienced in previous project
- C. best business practice
- D. safeguards that are inherent in existing technolog

**Answer:** A

**Explanation:**

Organization maturity level for the protection of information is a clear alignment with goals and objectives of the organization. Experience in previous projects is dependent upon other business models which may not be applicable to the current model. Best business practices may not be applicable to the organization's business needs. Safeguards inherent to existing technology are low cost but may not address all business needs and/or goals of the organization.

#### NEW QUESTION 34

Which of the following would help to change an organization's security culture?

- A. Develop procedures to enforce the information security policy
- B. Obtain strong management support

- C. Implement strict technical security controls
- D. Periodically audit compliance with the information security policy

**Answer:** B

**Explanation:**

Management support and pressure will help to change an organization's culture. Procedures will support an information security policy, but cannot change the culture of the organization. Technical controls will provide more security to an information system and staff; however, this does not mean the culture will be changed. Auditing will help to ensure the effectiveness of the information security policy; however, auditing is not effective in changing the culture of the company.

**NEW QUESTION 38**

Senior management commitment and support for information security will BEST be attained by an information security manager by emphasizing:

- A. organizational risk
- B. organization wide metric
- C. security need
- D. the responsibilities of organizational unit

**Answer:** A

**Explanation:**

Information security exists to help the organization meet its objectives. The information security manager should identify information security needs based on organizational needs. Organizational or business risk should always take precedence. Involving each organizational unit in information security and establishing metrics to measure success will be viewed favorably by senior management after the overall organizational risk is identified.

**NEW QUESTION 39**

Which of the following are likely to be updated MOST frequently?

- A. Procedures for hardening database servers
- B. Standards for password length and complexity
- C. Policies addressing information security governance
- D. Standards for document retention and destruction

**Answer:** A

**Explanation:**

Policies and standards should generally be more static and less subject to frequent change. Procedures on the other hand, especially with regard to the hardening of operating systems, will be subject to constant change; as operating systems change and evolve, the procedures for hardening will have to keep pace.

**NEW QUESTION 42**

Which of the following is characteristic of centralized information security management?

- A. More expensive to administer
- B. Better adherence to policies
- C. More aligned with business unit needs
- D. Faster turnaround of requests

**Answer:** B

**Explanation:**

Centralization of information security management results in greater uniformity and better adherence to security policies. It is generally less expensive to administer due to the economics of scale. However, turnaround can be slower due to the lack of alignment with business units.

**NEW QUESTION 43**

Senior management commitment and support for information security can BEST be obtained through presentations that:

- A. use illustrative examples of successful attack
- B. explain the technical risks to the organization
- C. evaluate the organization against best security practice
- D. tie security risks to key business objective

**Answer:** D

**Explanation:**

Senior management seeks to understand the business justification for investing in security. This can best be accomplished by tying security to key business objectives. Senior management will not be as interested in technical risks or examples of successful attacks if they are not tied to the impact on business environment and objectives. Industry best practices are important to senior management but, again, senior management will give them the right level of importance when they are presented in terms of key business objectives.

**NEW QUESTION 44**

The PRIMARY concern of an information security manager documenting a formal data retention policy would be:



- A. generally accepted industry best practice
- B. business requirement
- C. legislative and regulatory requirement
- D. storage availability

**Answer:** B

**Explanation:**

The primary concern will be to comply with legislation and regulation but only if this is a genuine business requirement. Best practices may be a useful guide but not a primary concern. Legislative and regulatory requirements are only relevant if compliance is a business need. Storage is irrelevant since whatever is needed must be provided

#### **NEW QUESTION 47**

Reviewing which of the following would BEST ensure that security controls are effective?

- A. Risk assessment policies
- B. Return on security investment
- C. Security metrics
- D. User access rights

**Answer:** C

**Explanation:**

Reviewing security metrics provides senior management a snapshot view and trends of an organization's security posture. Choice A is incorrect because reviewing risk assessment policies would not ensure that the controls are actually working. Choice B is incorrect because reviewing returns on security investments provides business justifications in implementing controls, but does not measure effectiveness of the control itself. Choice D is incorrect because reviewing user access rights is a joint responsibility of the data custodian and the data owner, and does not measure control effectiveness.

#### **NEW QUESTION 52**

The MOST basic requirement for an information security governance program is to:

- A. be aligned with the corporate business strategy
- B. be based on a sound risk management approach
- C. provide adequate regulatory compliance
- D. provide best practices for security- initiative

**Answer:** A

**Explanation:**

To receive senior management support, an information security program should be aligned with the corporate business strategy. Risk management is a requirement of an information security program which should take into consideration the business strategy. Security governance is much broader than just regulatory compliance. Best practice is an operational concern and does not have a direct impact on a governance program.

#### **NEW QUESTION 56**

Which of the following would BEST prepare an information security manager for regulatory reviews?

- A. Assign an information security administrator as regulatory liaison
- B. Perform self-assessments using regulatory guidelines and reports
- C. Assess previous regulatory reports with process owners input
- D. Ensure all regulatory inquiries are sanctioned by the legal department

**Answer:** B

**Explanation:**

Self-assessments provide the best feedback on readiness and permit identification of items requiring remediation. Directing regulators to a specific person or department, or assessing previous reports, is not as effective. The legal department should review all formal inquiries but this does not help prepare for a regulatory review.

#### **NEW QUESTION 59**

To justify the need to invest in a forensic analysis tool, an information security manager should FIRST:

- A. review the functionalities and implementation requirements of the solution
- B. review comparison reports of tool implementation in peer companies
- C. provide examples of situations where such a tool would be useful
- D. substantiate the investment in meeting organizational need

**Answer:** D

**Explanation:**

Any investment must be reviewed to determine whether it is cost effective and supports the organizational strategy. It is important to review the features and functionalities provided by such a tool, and to provide examples of situations where the tool would be useful, but that comes after substantiating the investment and return on investment to the organization.

#### NEW QUESTION 64

Obtaining senior management support for establishing a warm site can BEST be accomplished by:

- A. establishing a periodic risk assessment
- B. promoting regulatory requirement
- C. developing a business case
- D. developing effective metric

**Answer: C**

#### Explanation:

Business case development, including a cost-benefit analysis, will be most persuasive to management. A risk assessment may be included in the business case, but by itself will not be as effective in gaining management support. Informing management of regulatory requirements may help gain support for initiatives, but given that more than half of all organizations are not in compliance with regulations, it is unlikely to be sufficient in many cases. Good metrics which provide assurance that initiatives are meeting organizational goals will also be useful, but are insufficient in gaining management support.

#### NEW QUESTION 65

Which of the following is the MOST essential task for a chief information security officer (CISO) to perform?

- A. Update platform-level security settings
- B. Conduct disaster recovery test exercises
- C. Approve access to critical financial systems
- D. Develop an information security strategy paper

**Answer: D**

#### Explanation:

Developing a strategy paper on information security would be the most appropriate. Approving access would be the job of the data owner. Updating platform-level security and conducting recovery test exercises would be less essential since these are administrative tasks.

#### NEW QUESTION 66

Who is ultimately responsible for the organization's information?

- A. Data custodian
- B. Chief information security officer (CISO)
- C. Board of directors
- D. Chief information officer (CIO)

**Answer: C**

#### Explanation:

The board of directors is ultimately responsible for the organization's information and is tasked with responding to issues that affect its protection. The data custodian is responsible for the maintenance and protection of data. This role is usually filled by the IT department. The chief information security officer (CISO) is responsible for security and carrying out senior management's directives. The chief information officer (CIO) is responsible for information technology within the organization and is not ultimately responsible for the organization's information.

#### NEW QUESTION 67

In order to highlight to management the importance of network security, the security manager should FIRST:

- A. develop a security architecture
- B. install a network intrusion detection system (NIDS) and prepare a list of attack
- C. develop a network security policy
- D. conduct a risk assessment

**Answer: D**

#### Explanation:

A risk assessment would be most helpful to management in understanding at a very high level the threats, probabilities and existing controls. Developing a security architecture, installing a network intrusion detection system (NIDS) and preparing a list of attacks on the network and developing a network security policy would not be as effective in highlighting the importance to management and would follow only after performing a risk assessment.

#### NEW QUESTION 69

Which of the following is MOST important in developing a security strategy?

- A. Creating a positive business security environment
- B. Understanding key business objectives
- C. Having a reporting line to senior management
- D. Allocating sufficient resources to information security

**Answer: B**

#### Explanation:

Alignment with business strategy is of utmost importance. Understanding business objectives is critical in determining the security needs of the organization.



#### NEW QUESTION 74

In implementing information security governance, the information security manager is PRIMARILY responsible for:

- A. developing the security strateg
- B. reviewing the security strateg
- C. communicating the security strateg
- D. approving the security strategy

**Answer:** A

#### Explanation:

The information security manager is responsible for developing a security strategy based on business objectives with the help of business process owners. Reviewing the security strategy is the responsibility of a steering committee. The information security manager is not necessarily responsible for communicating or approving the security strategy.

#### NEW QUESTION 76

What is the MOST important factor in the successful implementation of an enterprise wide information security program?

- A. Realistic budget estimates
- B. Security awareness
- C. Support of senior management
- D. Recalculation of the work factor

**Answer:** C

#### Explanation:

Without the support of senior management, an information security program has little chance of survival. A company's leadership group, more than any other group, will more successfully drive the program. Their authoritative position in the company is a key factor. Budget approval, resource commitments, and companywide participation also require the buy-in from senior management. Senior management is responsible for providing an adequate budget and the necessary resources. Security awareness is important, but not the most important factor. Recalculation of the work factor is a part of risk management.

#### NEW QUESTION 81

On a company's e-commerce web site, a good legal statement regarding data privacy should include:

- A. a statement regarding what the company will do with the information it collect
- B. a disclaimer regarding the accuracy of information on its web sit
- C. technical information regarding how information is protecte
- D. a statement regarding where the information is being hoste

**Answer:** A

#### Explanation:

Most privacy laws and regulations require disclosure on how information will be used. A disclaimer is not necessary since it does not refer to data privacy. Technical details regarding how information is protected are not mandatory to publish on the web site and in fact would not be desirable. It is not mandatory to say where information is being hosted.

#### NEW QUESTION 84

Which of the following is the MOST appropriate position to sponsor the design and implementation of a new security infrastructure in a large global enterprise?

- A. Chief security officer (CSO)
- B. Chief operating officer (COO)
- C. Chief privacy officer (CPO)
- D. Chief legal counsel (CLC)

**Answer:** B

#### Explanation:

The chief operating officer (COO) is most knowledgeable of business operations and objectives. The chief privacy officer (CPO) and the chief legal counsel (CLC) may not have the knowledge of the day- to-day business operations to ensure proper guidance, although they have the same influence within the organization as the COO. Although the chief security officer (CSO) is knowledgeable of what is needed, the sponsor for this task should be someone with far-reaching influence across the organization.

#### NEW QUESTION 87

The MOST important factor in planning for the long-term retention of electronically stored business records is to take into account potential changes in:

- A. storage capacity and shelf lif
- B. regulatory and legal requirement
- C. business strategy and directio
- D. application systems and medi

**Answer:** D

#### Explanation:

Long-term retention of business records may be severely impacted by changes in application systems and media. For example, data stored in nonstandard formats that can only be read and interpreted by previously decommissioned applications may be difficult, if not impossible, to recover. Business strategy and direction do not generally apply, nor do legal and regulatory requirements. Storage capacity and shelf life are important but secondary issues.

#### NEW QUESTION 89

Which of the following is the BEST justification to convince management to invest in an information security program?

- A. Cost reduction
- B. Compliance with company policies
- C. Protection of business assets
- D. Increased business value

**Answer: D**

#### Explanation:

Investing in an information security program should increase business value and confidence. Cost reduction by itself is rarely the motivator for implementing an information security program. Compliance is secondary to business value. Increasing business value may include protection of business assets.

#### NEW QUESTION 93

To justify its ongoing security budget, which of the following would be of MOST use to the information security' department?

- A. Security breach frequency
- B. Annualized loss expectancy (ALE)
- C. Cost-benefit analysis
- D. Peer group comparison

**Answer: C**

#### Explanation:

Cost-benefit analysis is the legitimate way to justify budget. The frequency of security breaches may assist the argument for budget but is not the key tool; it does not address the impact. Annualized loss expectancy (ALE) does not address the potential benefit of security investment. Peer group comparison would provide a good estimate for the necessary security budget but it would not take into account the specific needs of the organization.

#### NEW QUESTION 95

Logging is an example of which type of defense against systems compromise?

- A. Containment
- B. Detection
- C. Reaction
- D. Recovery

**Answer: B**

#### Explanation:

Detection defenses include logging as well as monitoring, measuring, auditing, detecting viruses and intrusion. Examples of containment defenses are awareness, training and physical security defenses. Examples of reaction defenses are incident response, policy and procedure change, and control enhancement. Examples of recovery defenses are backups and restorations, failover and remote sites, and business continuity plans and disaster recovery plans.

#### NEW QUESTION 98

When an organization hires a new information security manager, which of the following goals should this individual pursue FIRST?

- A. Develop a security architecture
- B. Establish good communication with steering committee members
- C. Assemble an experienced staff
- D. Benchmark peer organizations

**Answer: B**

#### Explanation:

New information security managers should seek to build rapport and establish lines of communication with senior management to enlist their support. Benchmarking peer organizations is beneficial to better understand industry best practices, but it is secondary to obtaining senior management support. Similarly, developing a security architecture and assembling an experienced staff are objectives that can be obtained later.

#### NEW QUESTION 99

Developing a successful business case for the acquisition of information security software products can BEST be assisted by:

- A. assessing the frequency of incident
- B. quantifying the cost of control failure
- C. calculating return on investment (ROD) projection
- D. comparing spending against similar organization

**Answer: C**

**Explanation:**

Calculating the return on investment (ROI) will most closely align security with the impact on the bottom line. Frequency and cost of incidents are factors that go into determining the impact on the business but, by themselves, are insufficient. Comparing spending against similar organizations can be problematic since similar organizations may have different business goals and appetites for risk.

**NEW QUESTION 102**

Which of the following situations would MOST inhibit the effective implementation of security governance:

- A. The complexity of technology
- B. Budgetary constraints
- C. Conflicting business priorities
- D. High-level sponsorship

**Answer:** D

**Explanation:**

The need for senior management involvement and support is a key success factor for the implementation of appropriate security governance. Complexity of technology, budgetary constraints and conflicting business priorities are realities that should be factored into the governance model of the organization, and should not be regarded as inhibitors.

**NEW QUESTION 107**

Which of the following should be included in an annual information security budget that is submitted for management approval?

- A. A cost-benefit analysis of budgeted resources
- B. All of the resources that are recommended by the business
- C. Total cost of ownership (TCO)
- D. Baseline comparisons

**Answer:** A

**Explanation:**

A brief explanation of the benefit of expenditures in the budget helps to convey the context of how the purchases that are being requested meet goals and objectives, which in turn helps build credibility for the information security function or program. Explanations of benefits also help engage senior management in the support of the information security program. While the budget should consider all inputs and recommendations that are received from the business, the budget that is ultimately submitted to management for approval should include only those elements that are intended for purchase. TCO may be requested by management and may be provided in an addendum to a given purchase request, but is not usually included in an annual budget. Baseline comparisons (cost comparisons with other companies or industries) may be useful in developing a budget or providing justification in an internal review for an individual purchase, but would not be included with a request for budget approval.

**NEW QUESTION 109**

Information security should be:

- A. focused on eliminating all risk
- B. a balance between technical and business requirement
- C. driven by regulatory requirement
- D. defined by the board of director

**Answer:** B

**Explanation:**

Information security should ensure that business objectives are met given available technical capabilities, resource constraints and compliance requirements. It is not practical or feasible to eliminate all risks. Regulatory requirements must be considered, but are inputs to the business considerations. The board of directors does not define information security, but provides direction in support of the business goals and objectives.

**NEW QUESTION 112**

The data access requirements for an application should be determined by the:

- A. legal department
- B. compliance office
- C. information security manager
- D. business owner

**Answer:** D

**Explanation:**

Business owners are ultimately responsible for their applications. The legal department, compliance officer and information security manager all can advise, but do not have final responsibility.

**NEW QUESTION 114**

Temporarily deactivating some monitoring processes, even if supported by an acceptance of operational risk, may not be acceptable to the information security manager if:

- A. it implies compliance risk
- B. short-term impact cannot be determine
- C. it violates industry security practice
- D. changes in the roles matrix cannot be detecte

**Answer:** A

**Explanation:**

Monitoring processes are also required to guarantee fulfillment of laws and regulations of the organization and, therefore, the information security manager will be obligated to comply with the law. Choices B and C are evaluated as part of the operational risk. Choice D is unlikely to be as critical a breach of regulatory legislation. The acceptance of operational risks overrides choices B, C and D.

#### **NEW QUESTION 115**

Which of the following would be MOST helpful to achieve alignment between information security and organization objectives?

- A. Key control monitoring
- B. A robust security awareness program
- C. A security program that enables business activities
- D. An effective security architecture

**Answer:** C

**Explanation:**

A security program enabling business activities would be most helpful to achieve alignment between information security and organization objectives. All of the other choices are part of the security program and would not individually and directly help as much as the security program.

#### **NEW QUESTION 118**

When developing an information security program, what is the MOST useful source of information for determining available resources?

- A. Proficiency test
- B. Job descriptions
- C. Organization chart
- D. Skills inventory

**Answer:** D

**Explanation:**

A skills inventory would help identify- the available resources, any gaps and the training requirements for developing resources. Proficiency testing is useful but only with regard to specific technical skills. Job descriptions would not be as useful since they may be out of date or not sufficiently detailed. An organization chart would not provide the details necessary to determine the resources required for this activity.

#### **NEW QUESTION 122**

The MOST important component of a privacy policy is:

- A. notification
- B. warrantie
- C. liabilitie
- D. geographic coverag

**Answer:** A

**Explanation:**

Privacy policies must contain notifications and opt-out provisions: they are a high-level management statement of direction. They do not necessarily address warranties, liabilities or geographic coverage, which are more specific.

#### **NEW QUESTION 124**

The MOST useful way to describe the objectives in the information security strategy is through:

- A. attributes and characteristics of the 'desired state.'
- B. overall control objectives of the security progra
- C. mapping the IT systems to key business processe
- D. calculation of annual loss expectation

**Answer:** A

**Explanation:**

Security strategy will typically cover a wide variety of issues, processes, technologies and outcomes that can best be described by a set of characteristics and attributes that are desired. Control objectives are developed after strategy and policy development. Mapping IT systems to key business processes does not address strategy issues. Calculation of annual loss expectations would not describe the objectives in the information security strategy.

#### **NEW QUESTION 125**

Which of the following would be the BEST option to improve accountability for a system administrator who has security functions?

- A. Include security responsibilities in the job description
- B. Require the administrator to obtain security certification
- C. Train the system administrator on penetration testing and vulnerability assessment
- D. Train the system administrator on risk assessment

**Answer:** A

**Explanation:**

The first step to improve accountability is to include security responsibilities in a job description. This documents what is expected and approved by the organization. The other choices are methods to ensure that the system administrator has the training to fulfill the responsibilities included in the job description.

**NEW QUESTION 127**

Which of the following roles would represent a conflict of interest for an information security manager?

- A. Evaluation of third parties requesting connectivity
- B. Assessment of the adequacy of disaster recovery plans
- C. Final approval of information security policies
- D. Monitoring adherence to physical security controls

**Answer:** C

**Explanation:**

Since management is ultimately responsible for information security, it should approve information security policy statements; the information security manager should not have final approval. Evaluation of third parties requesting access, assessment of disaster recovery plans and monitoring of compliance with physical security controls are acceptable practices and do not present any conflicts of interest.

**NEW QUESTION 130**

Who in an organization has the responsibility for classifying information?

- A. Data custodian
- B. Database administrator
- C. Information security officer
- D. Data owner

**Answer:** D

**Explanation:**

The data owner has full responsibility over data. The data custodian is responsible for securing the information. The database administrator carries out the technical administration. The information security officer oversees the overall classification management of the information.

**NEW QUESTION 132**

Relationships among security technologies are BEST defined through which of the following?

- A. Security metrics
- B. Network topology
- C. Security architecture
- D. Process improvement models

**Answer:** C

**Explanation:**

Security architecture explains the use and relationships of security mechanisms. Security metrics measure improvement within the security practice but do not explain the use and relationships of security technologies. Process improvement models and network topology diagrams also do not describe the use and relationships of these technologies.

**NEW QUESTION 137**

An information security manager must understand the relationship between information security and business operations in order to:

- A. support organizational objective
- B. determine likely areas of noncompliance
- C. assess the possible impacts of compromise
- D. understand the threats to the business

**Answer:** A

**Explanation:**

Security exists to provide a level of predictability for operations, support for the activities of the organization and to ensure preservation of the organization. Business operations must be the driver for security activities in order to set meaningful objectives, determine and manage the risks to those activities, and provide a basis to measure the effectiveness of and provide guidance to the security program. Regulatory compliance may or may not be an organizational requirement. If compliance is a requirement, some level of compliance must be supported but compliance is only one aspect. It is necessary to understand the business goals in order to assess potential impacts and evaluate threats. These are some of the ways in which security supports organizational objectives, but they are not the only ways.



#### NEW QUESTION 140

The MOST important factor in ensuring the success of an information security program is effective:

- A. communication of information security requirements to all users in the organizatio
- B. formulation of policies and procedures for information securit
- C. alignment with organizational goals and objectives .
- D. monitoring compliance with information security policies and procedure

**Answer: C**

#### Explanation:

The success of security programs is dependent upon alignment with organizational goals and objectives. Communication is a secondary step. Effective communication and education of users is a critical determinant of success but alignment with organizational goals and objectives is the most important factor for success. Mere formulation of policies without effective communication to users will not ensure success. Monitoring compliance with information security policies and procedures can be, at best, a detective mechanism that will not lead to success in the midst of uninformed users.

#### NEW QUESTION 141

The cost of implementing a security control should not exceed the:

- A. annualized loss expectanc
- B. cost of an inciden
- C. asset valu
- D. implementation opportunity cost

**Answer: C**

#### Explanation:

The cost of implementing security controls should not exceed the worth of the asset. Annualized loss expectancy represents the losses drat are expected to happen during a single calendar year. A security mechanism may cost more than this amount (or the cost of a single incident) and still be considered cost effective. Opportunity costs relate to revenue lost by forgoing the acquisition of an item or the making of a business decision.

#### NEW QUESTION 144

An organization's information security processes are currently defined as ad hoc. In seeking to improve their performance level, the next step for the organization should be to:

- A. ensure that security processes are consistent across the organizatio
- B. enforce baseline security levels across the organizatio
- C. ensure that security processes are fully documente
- D. implement monitoring of key performance indicators for security processe

**Answer: A**

#### Explanation:

The organization first needs to move from ad hoc to repeatable processes. The organization then needs to document the processes and implement process monitoring and measurement. Baselining security levels will not necessarily assist in process improvement since baselining focuses primarily on control improvement. The organization needs to standardize processes both before documentation, and before monitoring and measurement.

#### NEW QUESTION 148

The FIRST step to create an internal culture that focuses on information security is to:

- A. implement stronger control
- B. conduct periodic awareness trainin
- C. actively monitor operation
- D. gain the endorsement of executive managemen

**Answer: D**

#### Explanation:

Endorsement of executive management in the form of policies provides direction and awareness. The implementation of stronger controls may lead to circumvention. Awareness training is important, but must be based on policies. Actively monitoring operations will not affect culture at all levels.

#### NEW QUESTION 149

Which of the following authentication methods prevents authentication replay?

- A. Password hash implementation
- B. Challenge/response mechanism
- C. Wired Equivalent Privacy (WEP) encryption usage
- D. HTTP Basic Authentication

**Answer: B**

#### Explanation:

A challenge .response mechanism prevents replay attacks by sending a different random challenge in each authentication event. The response is linked to that



challenge. Therefore, capturing the authentication handshake and replaying it through the network will not work. Using hashes by itself will not prevent a replay. A WEP key will not prevent sniffing (it just takes a few more minutes to break the WEP key if the attacker does not already have it) and therefore will not be able to prevent recording and replaying an authentication handshake. HTTP Basic Authentication is clear text and has no mechanisms to prevent replay.

**NEW QUESTION 153**

Acceptable risk is achieved when:

- A. residual risk is minimize
- B. transferred risk is minimize
- C. control risk is minimize
- D. inherent risk is minimize

**Answer:** A

**Explanation:**

Residual risk is the risk that remains after putting into place an effective risk management program; therefore, acceptable risk is achieved when this amount is minimized. Transferred risk is risk that has been assumed by a third party and may not necessarily be equal to the minimal form of residual risk. Control risk is the risk that controls may not prevent/detect an incident with a measure of control effectiveness. Inherent risk cannot be minimized.

**NEW QUESTION 158**

After completing a full IT risk assessment, who can BEST decide which mitigating controls should be implemented?

- A. Senior management
- B. Business manager
- C. IT audit manager
- D. Information security officer (ISO)

**Answer:** B

**Explanation:**

The business manager will be in the best position, based on the risk assessment and mitigation proposals, to decide which controls should/could be implemented, in line with the business strategy and with budget. Senior management will have to ensure that the business manager has a clear understanding of the risk assessed but in no case will be in a position to decide on specific controls. The IT audit manager will take part in the process to identify threats and vulnerabilities, and to make recommendations for mitigations. The information security officer (ISO) could make some decisions regarding implementation of controls. However, the business manager will have a broader business view and full control over the budget and, therefore, will be in a better position to make strategic decisions.

**NEW QUESTION 160**

When performing a quantitative risk analysis, which of the following is MOST important to estimate the potential loss?

- A. Evaluate productivity losses
- B. Assess the impact of confidential data disclosure
- C. Calculate the value of the information or asset
- D. Measure the probability of occurrence of each threat

**Answer:** C

**Explanation:**

Calculating the value of the information or asset is the first step in a risk analysis process to determine the impact to the organization, which is the ultimate goal. Determining how much productivity could be lost and how much it would cost is a step in the estimation of potential risk process. Knowing the impact if confidential information is disclosed is also a step in the estimation of potential risk. Measuring the probability of occurrence for each threat identified is a step in performing a threat analysis and therefore a partial answer.

**NEW QUESTION 161**

Before conducting a formal risk assessment of an organization's information resources, an information security manager should FIRST:

- A. map the major threats to business objective
- B. review available sources of risk informatio
- C. identify the value of the critical asset
- D. determine the financial impact if threats materializ

**Answer:** A

**Explanation:**

Risk mapping or a macro assessment of the major threats to the organization is a simple first step before performing a risk assessment. Compiling all available sources of risk information is part of the risk assessment. Choices C and D are also components of the risk assessment process, which are performed subsequent to the threats-business mapping.

**NEW QUESTION 166**

Risk management programs are designed to reduce risk to:

- A. a level that is too small to be measurabl
- B. the point at which the benefit exceeds the expens
- C. a level that the organization is willing to accep
- D. a rate of return that equals the current cost of capita

**Answer:** C

**Explanation:**

Risk should be reduced to a level that an organization is willing to accept. Reducing risk to a level too small to measure is impractical and is often cost-prohibitive. To tie risk to a specific rate of return ignores the qualitative aspects of risk that must also be considered. Depending on the risk preference of an organization, it may or may not choose to pursue risk mitigation to the point at which the benefit equals or exceeds the expense. Therefore, choice C is a more precise answer.

#### NEW QUESTION 169

One way to determine control effectiveness is by determining:

- A. whether it is preventive, detective or compensator
- B. the capability of providing notification of failure
- C. the test results of intended objective
- D. the evaluation and analysis of reliability

**Answer:** C

**Explanation:**

Control effectiveness requires a process to verify that the control process worked as intended. Examples such as dual-control or dual-entry bookkeeping provide verification and assurance that the process operated as intended. The type of control is not relevant, and notification of failure is not determinative of control strength. Reliability is not an indication of control strength; weak controls can be highly reliable, even if they are ineffective controls.

#### NEW QUESTION 174

Which of the following would a security manager establish to determine the target for restoration of normal processing?

- A. Recover)' time objective (RTO)
- B. Maximum tolerable outage (MTO)
- C. Recovery point objectives (RPOs)
- D. Services delivery objectives (SDOs)

**Answer:** A

**Explanation:**

Recovery time objective (RTO) is the length of time from the moment of an interruption until the time the process must be functioning at a service level sufficient to limit financial and operational impacts to an acceptable level. Maximum tolerable outage (MTO) is the maximum time for which an organization can operate in a reduced mode. Recovery point objectives (RPOs) relate to the age of the data required for recovery. Services delivery objectives (SDOs) are the levels of service required in reduced mode.

#### NEW QUESTION 175

An organization has to comply with recently published industry regulatory requirements—compliance that potentially has high implementation costs. What should the information security manager do FIRST?

- A. Implement a security committee
- B. Perform a gap analysis
- C. Implement compensating control
- D. Demand immediate compliance

**Answer:** B

**Explanation:**

Since they are regulatory requirements, a gap analysis would be the first step to determine the level of compliance already in place. Implementing a security committee or compensating controls would not be the first step. Demanding immediate compliance would not assess the situation.

#### NEW QUESTION 177

The BEST strategy for risk management is to:

- A. achieve a balance between risk and organizational goal
- B. reduce risk to an acceptable level
- C. ensure that policy development properly considers organizational risk
- D. ensure that all unmitigated risks are accepted by management

**Answer:** B

**Explanation:**

The best strategy for risk management is to reduce risk to an acceptable level, as this will take into account the organization's appetite for risk and the fact that it would not be practical to eliminate all risk. Achieving balance between risk and organizational goals is not always practical. Policy development must consider organizational risks as well as business objectives. It may be prudent to ensure that management understands and accepts risks that it is not willing to mitigate, but that is a practice and is not sufficient to be considered a strategy.

#### NEW QUESTION 181

The MOST effective use of a risk register is to:

- A. identify risks and assign roles and responsibilities for mitigation
- B. identify threats and probabilities
- C. facilitate a thorough review of all IT-related risks on a periodic basis
- D. record the annualized financial amount of expected losses due to risk

**Answer:** C

**Explanation:**

A risk register is more than a simple list—it should be used as a tool to ensure comprehensive documentation, periodic review and formal update of all risk elements in the enterprise's IT and related organization. Identifying risks and assigning roles and responsibilities for mitigation are elements of the register. Identifying threats and probabilities are two elements that are defined in the risk matrix, as differentiated from the broader scope of content in, and purpose for, the risk register. While the annualized loss expectancy (ALE) should be included in the register, this quantification is only a single element in the overall risk analysis program.

#### NEW QUESTION 185

Which of the following would be the MOST important factor to be considered in the loss of mobile equipment with unencrypted data?

- A. Disclosure of personal information
- B. Sufficient coverage of the insurance policy for accidental losses
- C. Intrinsic value of the data stored on the equipment
- D. Replacement cost of the equipment

**Answer:** C

**Explanation:**

When mobile equipment is lost or stolen, the information contained on the equipment matters most in determining the impact of the loss. The more sensitive the information, the greater the liability. If staff carries mobile equipment for business purposes, an organization must develop a clear policy as to what information should be kept on the equipment and for what purpose. Personal information is not defined in the question as the data that were lost. Insurance may be a relatively smaller issue as compared with information theft or opportunity loss, although insurance is also an important factor for a successful business. Cost of equipment would be a less important issue as compared with other choices.

#### NEW QUESTION 188

An information security manager has been assigned to implement more restrictive preventive controls. By doing so, the net effect will be to PRIMARILY reduce the:

- A. threats
- B. loss
- C. vulnerabilities
- D. probabilities

**Answer:** C

**Explanation:**

Implementing more restrictive preventive controls mitigates vulnerabilities but not the threats. Losses and probability of occurrence may not be primarily or directly affected.

#### NEW QUESTION 190

Attackers who exploit cross-site scripting vulnerabilities take advantage of:

- A. a lack of proper input validation control
- B. weak authentication controls in the web application layer
- C. flawed cryptographic secure sockets layer (SSL) implementations and short key length
- D. implicit web application trust relationship

**Answer:** A

**Explanation:**

Cross-site scripting attacks inject malformed input. Attackers who exploit weak application authentication controls can gain unauthorized access to applications and this has little to do with cross-site scripting vulnerabilities. Attackers who exploit flawed cryptographic secure sockets layer (SSL) implementations and short key lengths can sniff network traffic and crack keys to gain unauthorized access to information. This has little to do with cross-site scripting vulnerabilities. Web application trust relationships do not relate directly to the attack.

#### NEW QUESTION 194

Ongoing tracking of remediation efforts to mitigate identified risks can BEST be accomplished through the use of which of the following?

- A. Tree diagrams
- B. Venn diagrams
- C. Heat charts
- D. Bar charts

**Answer:** C

**Explanation:**

Heat charts, sometimes referred to as stoplight charts, quickly and clearly show the current status of remediation efforts. Venn diagrams show the connection

between sets; tree diagrams are useful for decision analysis; and bar charts show relative size.

#### NEW QUESTION 199

The systems administrator did not immediately notify the security officer about a malicious attack. An information security manager could prevent this situation by:

- A. periodically testing the incident response plan
- B. regularly testing the intrusion detection system (IDS).
- C. establishing mandatory training of all personnel
- D. periodically reviewing incident response procedure

**Answer:** A

#### Explanation:

Security incident response plans should be tested to find any deficiencies and improve existing processes. Testing the intrusion detection system (IDS) is a good practice but would not have prevented this situation. All personnel need to go through formal training to ensure that they understand the process, tools and methodology involved in handling security incidents. However, testing of the actual plans is more effective in ensuring the process works as intended. Reviewing the response procedures is not enough; the security response plan needs to be tested on a regular basis.

#### NEW QUESTION 203

Previously accepted risk should be:

- A. re-assessed periodically since the risk can be escalated to an unacceptable level due to revised condition
- B. accepted permanently since management has already spent resources (time and labor) to conclude that the risk level is acceptable
- C. avoided next time since risk avoidance provides the best protection to the company
- D. removed from the risk log once it is accepted

**Answer:** A

#### Explanation:

Acceptance of risk should be regularly reviewed to ensure that the rationale for the initial risk acceptance is still valid within the current business context. The rationale for initial risk acceptance may no longer be valid due to change(s) and, hence, risk cannot be accepted permanently. Risk is an inherent part of business and it is impractical and costly to eliminate all risk. Even risks that have been accepted should be monitored for changing conditions that could alter the original decision.

#### NEW QUESTION 205

The security responsibility of data custodians in an organization will include:

- A. assuming overall protection of information asset
- B. determining data classification level
- C. implementing security controls in products they install
- D. ensuring security measures are consistent with policy

**Answer:** D

#### Explanation:

Security responsibilities of data custodians within an organization include ensuring that appropriate security measures are maintained and are consistent with organizational policy. Executive management holds overall responsibility for protection of the information assets. Data owners determine data classification levels for information assets so that appropriate levels of controls can be provided to meet the requirements relating to confidentiality, integrity and availability. Implementation of information security in products is the responsibility of the IT developers.

#### NEW QUESTION 209

A successful risk management program should lead to:

- A. optimization of risk reduction efforts against cost
- B. containment of losses to an annual budgeted amount
- C. identification and removal of all man-made threat
- D. elimination or transference of all organizational risk

**Answer:** A

#### Explanation:

Successful risk management should lead to a breakeven point of risk reduction and cost. The other options listed are not achievable. Threats cannot be totally removed or transferred, while losses cannot be budgeted in advance with absolute certainty.

#### NEW QUESTION 211

When the computer incident response team (CIRT) finds clear evidence that a hacker has penetrated the corporate network and modified customer information, an information security manager should FIRST notify:

- A. the information security steering committee
- B. customers who may be impacted
- C. data owners who may be impacted
- D. regulatory agencies overseeing privacy

**Answer:**

C

**Explanation:**

The data owners should be notified first so they can take steps to determine the extent of the damage and coordinate a plan for corrective action with the computer incident response team. Other parties will be notified later as required by corporate policy and regulatory requirements.

**NEW QUESTION 215**

A project manager is developing a developer portal and requests that the security manager assign a public IP address so that it can be accessed by in-house staff and by external consultants outside the organization's local area network (LAN). What should the security manager do FIRST?

- A. Understand the business requirements of the developer portal
- B. Perform a vulnerability assessment of the developer portal
- C. Install an intrusion detection system (IDS)
- D. Obtain a signed nondisclosure agreement (NDA) from the external consultants before allowing external access to the server

**Answer:** A

**Explanation:**

The information security manager cannot make an informed decision about the request without first understanding the business requirements of the developer portal. Performing a vulnerability assessment of developer portal and installing an intrusion detection system (IDS) are best practices but are subsequent to understanding the requirements. Obtaining a signed nondisclosure agreement will not take care of the risks inherent in the organization's application.

**NEW QUESTION 216**

Which of the following roles is PRIMARILY responsible for determining the information classification levels for a given information asset?

- A. Manager
- B. Custodian
- C. User
- D. Owner

**Answer:** D

**Explanation:**

Although the information owner may be in a management position and is also considered a user, the information owner role has the responsibility for determining information classification levels. Management is responsible for higher-level issues such as providing and approving budget, supporting activities, etc. The information custodian is responsible for day-to-day security tasks such as protecting information, backing up information, etc. Users are the lowest level. They use the data, but do not classify the data. The owner classifies the data.

**NEW QUESTION 219**

In performing a risk assessment on the impact of losing a server, the value of the server should be calculated using the:

- A. original cost to acquire
- B. cost of the software store
- C. annualized loss expectancy (ALE).
- D. cost to obtain a replacement

**Answer:** D

**Explanation:**

The value of the server should be based on its cost of replacement. The original cost may be significantly different from the current cost and, therefore, not as relevant. The value of the software is not at issue because it can be restored from backup media. The ALE for all risks related to the server does not represent the server's value.

**NEW QUESTION 224**

Which of the following measures would be MOST effective against insider threats to confidential information?

- A. Role-based access control
- B. Audit trail monitoring
- C. Privacy policy
- D. Defense-in-depth

**Answer:** A

**Explanation:**

Role-based access control provides access according to business needs; therefore, it reduces unnecessary access rights and enforces accountability. Audit trail monitoring is a detective control, which is 'after the fact.' Privacy policy is not relevant to this risk. Defense-in-depth primarily focuses on external threats

**NEW QUESTION 228**

The MAIN reason why asset classification is important to a successful information security program is because classification determines:

- A. the priority and extent of risk mitigation effort



- B. the amount of insurance needed in case of los
- C. the appropriate level of protection to the asse
- D. how protection levels compare to peer organization

**Answer:** C

**Explanation:**

Protection should be proportional to the value of the asset. Classification is based upon the value of the asset to the organization. The amount of insurance needed in case of loss may not be applicable in each case. Peer organizations may have different classification schemes for their assets.

#### NEW QUESTION 230

An organization is already certified to an international security standard. Which mechanism would BEST help to further align the organization with other data security regulatory requirements as per new business needs?

- A. Key performance indicators (KPIs)
- B. Business impact analysis (BIA)
- C. Gap analysis
- D. Technical vulnerability assessment

**Answer:** C

**Explanation:**

Gap analysis would help identify the actual gaps between the desired state and the current implementation of information security management. BIA is primarily used for business continuity planning. Technical vulnerability assessment is used for detailed assessment of technical controls, which would come later in the process and would not provide complete information in order to identify gaps.

#### NEW QUESTION 231

A common concern with poorly written web applications is that they can allow an attacker to:

- A. gain control through a buffer overflo
- B. conduct a distributed denial of service (DoS) attac
- C. abuse a race conditio
- D. inject structured query language (SQL) statement

**Answer:** D

**Explanation:**

Structured query language (SQL) injection is one of the most common and dangerous web application vulnerabilities. Buffer overflows and race conditions are very difficult to find and exploit on web applications. Distributed denial of service (DoS) attacks have nothing to do with the quality of a web application.

#### NEW QUESTION 233

The recovery time objective (RTO) is reached at which of the following milestones?

- A. Disaster declaration
- B. Recovery of the backups
- C. Restoration of the system
- D. Return to business as usual processing

**Answer:** C

**Explanation:**

The recovery time objective (RTO) is based on the amount of time required to restore a system; disaster declaration occurs at the beginning of this period. Recovery of the backups occurs shortly after the beginning of this period. Return to business as usual processing occurs significantly later than the RTO. RTO is an "objective," and full restoration may or may not coincide with the RTO. RTO can be the minimum acceptable operational level, far short of normal operations.

#### NEW QUESTION 234

What mechanisms are used to identify deficiencies that would provide attackers with an opportunity to compromise a computer system?

- A. Business impact analyses
- B. Security gap analyses
- C. System performance metrics
- D. Incident response processes

**Answer:** B

**Explanation:**

A security gap analysis is a process which measures all security controls in place against typically good business practice, and identifies related weaknesses. A business impact analysis is less suited to identify security deficiencies. System performance metrics may indicate security weaknesses, but that is not their primary purpose. Incident response processes exist for cases where security weaknesses are exploited.

#### NEW QUESTION 238

It is important to classify and determine relative sensitivity of assets to ensure that:



- A. cost of protection is in proportion to sensitivity
- B. highly sensitive assets are protected
- C. cost of controls is minimized
- D. countermeasures are proportional to risk

**Answer:** D

**Explanation:**

Classification of assets needs to be undertaken to determine sensitivity of assets in terms of risk to the business operation so that proportional countermeasures can be effectively implemented. While higher costs are allowable to protect sensitive assets, and it is always reasonable to minimize the costs of controls, it is most important that the controls and countermeasures are commensurate to the risk since this will justify the costs. Choice B is important but it is an incomplete answer because it does not factor in risk. Therefore, choice D is the most important.

#### **NEW QUESTION 241**

Which of the following techniques MOST clearly indicates whether specific risk-reduction controls should be implemented?

- A. Countermeasure cost-benefit analysis
- B. Penetration testing
- C. Frequent risk assessment programs
- D. Annual loss expectancy (ALE) calculation

**Answer:** A

**Explanation:**

In a countermeasure cost-benefit analysis, the annual cost of safeguards is compared with the expected cost of loss. This can then be used to justify a specific control measure. Penetration testing may indicate the extent of a weakness but, by itself, will not establish the cost/benefit of a control. Frequent risk assessment programs will certainly establish what risk exists but will not determine the maximum cost of controls. Annual loss expectancy (ALE) is a measure which will contribute to the value of the risk but, alone, will not justify a control.

#### **NEW QUESTION 246**

An online banking institution is concerned that the breach of customer personal information will have a significant financial impact due to the need to notify and compensate customers whose personal information may have been compromised. The institution determines that residual risk will always be too high and decides to:

- A. mitigate the impact by purchasing insurance
- B. implement a circuit-level firewall to protect the network
- C. increase the resiliency of security measures in place
- D. implement a real-time intrusion detection system

**Answer:** A

**Explanation:**

Since residual risk will always be too high, the only practical solution is to mitigate the financial impact by purchasing insurance.

#### **NEW QUESTION 249**

Which of the following is the MOST effective way to treat a risk such as a natural disaster that has a low probability and a high impact level?

- A. Implement countermeasure
- B. Eliminate the risk
- C. Transfer the risk
- D. Accept the risk

**Answer:** C

**Explanation:**

Risks are typically transferred to insurance companies when the probability of an incident is low but the impact is high. Examples include: hurricanes, tornados and earthquakes. Implementing countermeasures may not be the most cost-effective approach to security management. Eliminating the risk may not be possible. Accepting the risk would leave the organization vulnerable to a catastrophic disaster which may cripple or ruin the organization. It would be more cost effective to pay recurring insurance costs than to be affected by a disaster from which the organization cannot financially recover.

#### **NEW QUESTION 254**

Which of the following attacks is BEST mitigated by utilizing strong passwords?

- A. Man-in-the-middle attack
- B. Brute force attack
- C. Remote buffer overflow
- D. Root kit

**Answer:** B

**Explanation:**

A brute force attack is normally successful against weak passwords, whereas strong passwords would not prevent any of the other attacks. Man-in-the-middle attacks intercept network traffic, which could contain passwords, but is not naturally password-protected. Remote buffer overflows rarely require a password to

exploit a remote host. Root kits hook into the operating system's kernel and, therefore, operate underneath any authentication mechanism.

#### NEW QUESTION 258

The PRIMARY objective of a risk management program is to:

- A. minimize inherent risk
- B. eliminate business risk
- C. implement effective control
- D. minimize residual risk

**Answer: D**

#### Explanation:

The goal of a risk management program is to ensure that residual risk remains within manageable levels. Management of risk does not always require the removal of inherent risk nor is this always possible. A possible benefit of good risk management is to reduce insurance premiums, but this is not its primary intention. Effective controls are naturally a clear objective of a risk management program, but with the choices given, choice C is an incomplete answer.

#### NEW QUESTION 263

The valuation of IT assets should be performed by:

- A. an IT security manager
- B. an independent security consultant
- C. the chief financial officer (CFO).
- D. the information owner

**Answer: D**

#### Explanation:

Information asset owners are in the best position to evaluate the value added by the IT asset under review within a business process, thanks to their deep knowledge of the business processes and of the functional IT requirements. An IT security manager is an expert of the IT risk assessment methodology and IT asset valuation mechanisms. However, the manager could not have a deep understanding of all the business processes of the firm. An IT security subject matter expert will take part of the process to identify threats and vulnerabilities and will collaborate with the business information asset owner to define the risk profile of the asset. A chief financial officer (CFO) will have an overall costs picture but not detailed enough to evaluate the value of each IT asset.

#### NEW QUESTION 268

A security risk assessment exercise should be repeated at regular intervals because:

- A. business threats are constantly changing
- B. omissions in earlier assessments can be addressed
- C. repetitive assessments allow various methodologies
- D. they help raise awareness on security in the business

**Answer: A**

#### Explanation:

As business objectives and methods change, the nature and relevance of threats change as well. Choice B does not, by itself, justify regular reassessment. Choice C is not necessarily true in all cases. Choice D is incorrect because there are better ways of raising security awareness than by performing a risk assessment.

#### NEW QUESTION 273

The decision as to whether a risk has been reduced to an acceptable level should be determined by:

- A. organizational requirement
- B. information systems requirement
- C. information security requirement
- D. international standard

**Answer: A**

#### Explanation:

Organizational requirements should determine when a risk has been reduced to an acceptable level. Information systems and information security should not make the ultimate determination. Since each organization is unique, international standards of best practice do not represent the best solution.

#### NEW QUESTION 274

Which of the following is the MAIN reason for performing risk assessment on a continuous basis'?

- A. Justification of the security budget must be continually made
- B. New vulnerabilities are discovered every day
- C. The risk environment is constantly changing
- D. Management needs to be continually informed about emerging risk

**Answer: C**

**Explanation:**

The risk environment is impacted by factors such as changes in technology, and business strategy. These changes introduce new threats and vulnerabilities to the organization. As a result, risk assessment should be performed continuously. Justification of a budget should never be the main reason for performing a risk assessment. New vulnerabilities should be managed through a patch management process. Informing management about emerging risks is important, but is not the main driver for determining when a risk assessment should be performed.

**NEW QUESTION 278**

A risk management program should reduce risk to:

- A. zer
- B. an acceptable leve
- C. an acceptable percent of revenu
- D. an acceptable probability of occurrenc

**Answer: B**

**Explanation:**

Risk should be reduced to an acceptable level based on the risk preference of the organization. Reducing risk to zero is impractical and could be cost-prohibitive. Tying risk to a percentage of revenue is inadvisable since there is no direct correlation between the two. Reducing the probability of risk occurrence may not always be possible, as in the ease of natural disasters. The focus should be on reducing the impact to an acceptable level to the organization, not reducing the probability of the risk.

**NEW QUESTION 281**

Which of the following will BEST protect an organization from internal security attacks?

- A. Static IP addressing
- B. Internal address translation
- C. Prospective employee background checks
- D. Employee awareness certification program

**Answer: C**

**Explanation:**

Because past performance is a strong predictor of future performance, background checks of prospective employees best prevents attacks from originating within an organization. Static IP addressing does little to prevent an internal attack. Internal address translation using non-routable addresses is useful against external attacks but not against internal attacks. Employees who certify that they have read security policies are desirable, but this does not guarantee that the employees behave honestly.

**NEW QUESTION 285**

Which of the following is the BEST method to ensure the overall effectiveness of a risk management program?

- A. User assessments of changes
- B. Comparison of the program results with industry standards
- C. Assignment of risk within the organization
- D. Participation by all members of the organization

**Answer: D**

**Explanation:**

Effective risk management requires participation, support and acceptance by all applicable members of the organization, beginning with the executive levels. Personnel must understand their responsibilities and be trained on how to fulfill their roles.

**NEW QUESTION 288**

A company recently developed a breakthrough technology. Since this technology could give this company a significant competitive edge, which of the following would FIRST govern how this information is to be protected?

- A. Access control policy
- B. Data classification policy
- C. Encryption standards
- D. Acceptable use policy

**Answer: B**

**Explanation:**

Data classification policies define the level of protection to be provided for each category of data. Without this mandated ranking of degree of protection, it is difficult to determine what access controls or levels of encryption should be in place. An acceptable use policy is oriented more toward the end user and, therefore, would not specifically address what controls should be in place to adequately protect information.

**NEW QUESTION 293**

Which of the following groups would be in the BEST position to perform a risk analysis for a business?

- A. External auditors

- B. A peer group within a similar business
- C. Process owners
- D. A specialized management consultant

**Answer:** C

**Explanation:**

Process owners have the most in-depth knowledge of risks and compensating controls within their environment. External parties do not have that level of detailed knowledge on the inner workings of the business. Management consultants are expected to have the necessary skills in risk analysis techniques but are still less effective than a group with intimate knowledge of the business.

#### **NEW QUESTION 295**

Which of the following is the MOST important requirement for setting up an information security infrastructure for a new system?

- A. Performing a business impact analysis (BIA)
- B. Considering personal information devices as part of the security policy
- C. Initiating IT security training and familiarization
- D. Basing the information security infrastructure on risk assessment

**Answer:** D

**Explanation:**

The information security infrastructure should be based on risk. While considering personal information devices as part of the security policy may be a consideration, it is not the most important requirement. A BIA is typically carried out to prioritize business processes as part of a business continuity plan. Initiating IT security training may not be important for the purpose of the information security infrastructure.

#### **NEW QUESTION 298**

After a risk assessment study, a bank with global operations decided to continue doing business in certain regions of the world where identity theft is rampant. The information security manager should encourage the business to:

- A. increase its customer awareness efforts in those region
- B. implement monitoring techniques to detect and react to potential fraud
- C. outsource credit card processing to a third part
- D. make the customer liable for losses if they fail to follow the bank's advice

**Answer:** B

**Explanation:**

While customer awareness will help mitigate the risks, this is insufficient on its own to control fraud risk. Implementing monitoring techniques which will detect and deal with potential fraud cases is the most effective way to deal with this risk. If the bank outsources its processing, the bank still retains liability. While making the customer liable for losses is a possible approach, nevertheless, the bank needs to be seen to be proactive in managing its risks.

#### **NEW QUESTION 300**

Which of the following would help management determine the resources needed to mitigate a risk to the organization?

- A. Risk analysis process
- B. Business impact analysis (BIA)
- C. Risk management balanced scorecard
- D. Risk-based audit program

**Answer:** B

**Explanation:**

The business impact analysis (BIA) determines the possible outcome of a risk and is essential to determine the appropriate cost of control. The risk analysis process provides comprehensive data, but does not determine definite resources to mitigate the risk as does the BIA. The risk management balanced scorecard is a measuring tool for goal attainment. A risk-based audit program is used to focus the audit process on the areas of greatest importance to the organization.

#### **NEW QUESTION 304**

When a significant security breach occurs, what should be reported FIRST to senior management?

- A. A summary of the security logs that illustrates the sequence of events
- B. An explanation of the incident and corrective action taken
- C. An analysis of the impact of similar attacks at other organizations
- D. A business case for implementing stronger logical access controls

**Answer:** B

**Explanation:**

When reporting an incident to senior management, the initial information to be communicated should include an explanation of what happened and how the breach was resolved. A summary of security logs would be too technical to report to senior management. An analysis of the impact of similar attacks and a business case for improving controls would be desirable; however, these would be communicated later in the process.

#### NEW QUESTION 307

What is the BEST technique to determine which security controls to implement with a limited budget?

- A. Risk analysis
- B. Annualized loss expectancy (ALE) calculations
- C. Cost-benefit analysis
- D. Impact analysis

**Answer: C**

#### Explanation:

Cost-benefit analysis is performed to ensure that the cost of a safeguard does not outweigh its benefit and that the best safeguard is provided for the cost of implementation. Risk analysis identifies the risks and suggests appropriate mitigation. The annualized loss expectancy (ALE) is a subset of a cost-benefit analysis. Impact analysis would indicate how much could be lost if a specific threat occurred.

#### NEW QUESTION 308

Information security managers should use risk assessment techniques to:

- A. justify selection of risk mitigation strategies
- B. maximize the return on investment (ROI)
- C. provide documentation for auditors and regulators
- D. quantify risks that would otherwise be subjective

**Answer: A**

#### Explanation:

Information security managers should use risk assessment techniques to justify and implement a risk mitigation strategy as efficiently as possible. None of the other choices accomplishes that task, although they are important components.

#### NEW QUESTION 310

In a business impact analysis, the value of an information system should be based on the overall cost:

- A. of recovery
- B. to recreate
- C. if unavailable
- D. of emergency operation

**Answer: C**

#### Explanation:

The value of an information system should be based on the cost incurred if the system were to become unavailable. The cost to design or recreate the system is not as relevant since a business impact analysis measures the impact that would occur if an information system were to become unavailable. Similarly, the cost of emergency operations is not as relevant.

#### NEW QUESTION 315

The PRIMARY goal of a corporate risk management program is to ensure that an organization's:

- A. IT assets in key business functions are protected
- B. business risks are addressed by preventive controls
- C. stated objectives are achievable
- D. IT facilities and systems are always available

**Answer: C**

#### Explanation:

Risk management's primary goal is to ensure an organization maintains the ability to achieve its objectives. Protecting IT assets is one possible goal as well as ensuring infrastructure and systems availability. However, these should be put in the perspective of achieving an organization's objectives. Preventive controls are not always possible or necessary; risk management will address issues with an appropriate mix of preventive and corrective controls.

#### NEW QUESTION 317

When performing a risk assessment, the MOST important consideration is that:

- A. management supports risk mitigation efforts
- B. annual loss expectations (ALEs) have been calculated for critical assets
- C. assets have been identified and appropriately valued
- D. attack motives, means and opportunities be understood

**Answer: C**

#### Explanation:

Identification and valuation of assets provides the basis for risk management efforts as it relates to the criticality and sensitivity of assets. Management support is always important, but is not relevant when determining the proportionality of risk management efforts. ALE calculations are only valid if assets have first been



identified and appropriately valued. Motives, means and opportunities should already be factored in as a part of a risk assessment.

#### NEW QUESTION 320

Risk assessment should be built into which of the following systems development phases to ensure that risks are addressed in a development project?

- A. Programming
- B. Specification
- C. User testing
- D. Feasibility

**Answer: D**

#### Explanation:

Risk should be addressed as early as possible in the development cycle. The feasibility study should include risk assessment so that the cost of controls can be estimated before the project proceeds. Risk should also be considered in the specification phase where the controls are designed, but this would still be based on the assessment carried out in the feasibility study. Assessment would not be relevant in choice A or C.

#### NEW QUESTION 321

When residual risk is minimized:

- A. acceptable risk is probabl
- B. transferred risk is acceptabl
- C. control risk is reduce
- D. risk is transferabl

**Answer: A**

#### Explanation:

Since residual risk is the risk that remains after putting into place an effective risk management program, it is probable that the organization will decide that it is an acceptable risk if sufficiently minimized. Transferred risk is risk that has been assumed by a third party, therefore its magnitude is not relevant. Accordingly, choices B and D are incorrect since transferred risk does not necessarily indicate whether risk is at an acceptable level. Minimizing residual risk will not reduce control risk.

#### NEW QUESTION 326

Which of the following risks would BEST be assessed using quantitative risk assessment techniques?

- A. Customer data stolen
- B. An electrical power outage
- C. A web site defaced by hackers
- D. Loss of the software development team

**Answer: B**

#### Explanation:

The effect of the theft of customer data or web site defacement by hackers could lead to a permanent decline in customer confidence, which does not lend itself to measurement by quantitative techniques. Loss of a majority of the software development team could have similar unpredictable repercussions. However, the loss of electrical power for a short duration is more easily measurable and can be quantified into monetary amounts that can be assessed with quantitative techniques.

#### NEW QUESTION 331

Which of the following will BEST prevent external security attacks?

- A. Static IP addressing
- B. Network address translation
- C. Background checks for temporary employees
- D. Securing and analyzing system access logs

**Answer: B**

#### Explanation:

Network address translation is helpful by having internal addresses that are nonroutable. Background checks of temporary employees are more likely to prevent an attack launched from within the enterprise. Static IP addressing does little to prevent an attack. Writing all computer logs to removable media does not help in preventing an attack.

#### NEW QUESTION 332

Quantitative risk analysis is MOST appropriate when assessment data:

- A. include customer perception
- B. contain percentage estimate
- C. do not contain specific detail
- D. contain subjective informatio

**Answer: B**



**Explanation:**

Percentage estimates are characteristic of quantitative risk analysis. Customer perceptions, lack of specific details or subjective information lend themselves more to qualitative risk analysis.

**NEW QUESTION 334**

Which of the following risks would BEST be assessed using qualitative risk assessment techniques?

- A. Theft of purchased software
- B. Power outage lasting 24 hours
- C. Permanent decline in customer confidence
- D. Temporary loss of e-mail due to a virus attack

**Answer: C**

**Explanation:**

A permanent decline in customer confidence does not lend itself well to measurement by quantitative techniques. Qualitative techniques are more effective in evaluating things such as customer loyalty and goodwill. Theft of software, power outages and temporary loss of e-mail can be quantified into monetary amounts easier than can be assessed with quantitative techniques.

**NEW QUESTION 338**

Which of the following risks is represented in the risk appetite of an organization?

- A. Control
- B. Inherent
- C. Residual
- D. Audit

**Answer: C**

**Explanation:**

Residual risk is unmanaged, i.e., inherent risk which remains uncontrolled. This is key to the organization's risk appetite and is the amount of residual risk that a business is living with that affects its viability. Hence, inherent risk is incorrect. Control risk, the potential for controls to fail, and audit risk, which relates only to audit's approach to their work, are not relevant in this context.

**NEW QUESTION 342**

A successful information security management program should use which of the following to determine the amount of resources devoted to mitigating exposures?

- A. Risk analysis results
- B. Audit report findings
- C. Penetration test results
- D. Amount of IT budget available

**Answer: A**

**Explanation:**

Risk analysis results are the most useful and complete source of information for determining the amount of resources to devote to mitigating exposures. Audit report findings may not address all risks and do not address annual loss frequency. Penetration test results provide only a limited view of exposures, while the IT budget is not tied to the exposures faced by the organization.

**NEW QUESTION 345**

An organization has decided to implement additional security controls to treat the risks of a new process. This is an example of:

- A. eliminating the risk
- B. transferring the risk
- C. mitigating the risk
- D. accepting the risk

**Answer: C**

**Explanation:**

Risk can never be eliminated entirely. Transferring the risk gives it away such as buying insurance so the insurance company can take the risk. Implementing additional controls is an example of mitigating risk. Doing nothing to mitigate the risk would be an example of accepting risk.

**NEW QUESTION 349**

The PRIMARY reason for assigning classes of sensitivity and criticality to information resources is to provide a basis for:

- A. determining the scope for inclusion in an information security program
- B. defining the level of access control
- C. justifying costs for information resource
- D. determining the overall budget of an information security program

**Answer: B**

**Explanation:**

The assigned class of sensitivity and criticality of the information resource determines the level of access controls to be put in place. The assignment of sensitivity and criticality takes place with the information assets that have already been included in the information security program and has only an indirect bearing on the costs to be incurred. The assignment of sensitivity and criticality contributes to, but does not decide, the overall budget of the information security program.

**NEW QUESTION 353**

Which of the following would be the FIRST step in establishing an information security program?

- A. Develop the security polic
- B. Develop security operating procedure
- C. Develop the security pla
- D. Conduct a security controls stud

**Answer: C**

**Explanation:**

A security plan must be developed to implement the security strategy. All of the other choices should follow the development of the security plan.

**NEW QUESTION 357**

Which of the following is the MOST effective solution for preventing internal users from modifying sensitive and classified information?

- A. Baseline security standards
- B. System access violation logs
- C. Role-based access controls
- D. Exit routines

**Answer: C**

**Explanation:**

Role-based access controls help ensure that users only have access to files and systems appropriate for their job role. Violation logs are detective and do not prevent unauthorized access. Baseline security standards do not prevent unauthorized access. Exit routines are dependent upon appropriate role-based access.

**NEW QUESTION 358**

Which of the following would be the BEST metric for the IT risk management process?

- A. Number of risk management action plans
- B. Percentage of critical assets with budgeted remedial
- C. Percentage of unresolved risk exposures
- D. Number of security incidents identified

**Answer: B**

**Explanation:**

Percentage of unresolved risk exposures and the number of security incidents identified contribute to the IT risk management process, but the percentage of critical assets with budgeted remedial is the most indicative metric. Number of risk management action plans is not useful for assessing the quality of the process.

**NEW QUESTION 363**

Who can BEST advocate the development of and ensure the success of an information security program?

- A. Internal auditor
- B. Chief operating officer (COO)
- C. Steering committee
- D. IT management

**Answer: C**

**Explanation:**

Senior management represented in the security steering committee is in the best position to advocate the establishment of and continued support for an information security program. The chief operating officer (COO) will be a member of that committee. An internal auditor is a good advocate but is secondary to the influence of senior management. IT management has a lesser degree of influence and would also be part of the steering committee.

**NEW QUESTION 365**

When a user employs a client-side digital certificate to authenticate to a web server through Secure Socket Layer (SSL), confidentiality is MOST vulnerable to which of the following?

- A. IP spoofing
- B. Man-in-the-middle attack
- C. Repudiation
- D. Trojan

**Answer: D**

**Explanation:**

A Trojan is a program that gives the attacker full control over the infected computer, thus allowing the attacker to hijack, copy or alter information after authentication by the user. IP spoofing will not work because IP is not used as an authentication mechanism. Man-in-the-middle attacks are not possible if using SSL with client-side certificates. Repudiation is unlikely because client-side certificates authenticate the user.

**NEW QUESTION 366**

The BEST reason for an organization to have two discrete firewalls connected directly to the Internet and to the same DMZ would be to:

- A. provide in-depth defenses
- B. separate test and production
- C. permit traffic load balancing
- D. prevent a denial-of-service attack

**Answer: C**

**Explanation:**

Having two entry points, each guarded by a separate firewall, is desirable to permit traffic load balancing. As they both connect to the Internet and to the same demilitarized zone (DMZ), such an arrangement is not practical for separating test from production or preventing a denial-of-service attack.

**NEW QUESTION 370**

Which of the following is MOST important for a successful information security program?

- A. Adequate training on emerging security technologies
- B. Open communication with key process owners
- C. Adequate policies, standards and procedures
- D. Executive management commitment

**Answer: D**

**Explanation:**

Sufficient executive management support is the most important factor for the success of an information security program. Open communication, adequate training, and good policies and procedures, while important, are not as important as support from top management; they will not ensure success if senior management support is not present.

**NEW QUESTION 371**

Which of the following is the BEST metric for evaluating the effectiveness of security awareness training? The number of:

- A. password reset
- B. reported incident
- C. incidents resolved
- D. access rule violation

**Answer: B**

**Explanation:**

Reported incidents will provide an indicator of the awareness level of staff. An increase in reported incidents could indicate that the staff is paying more attention to security. Password resets and access rule violations may or may not have anything to do with awareness levels. The number of incidents resolved may not correlate to staff awareness.

**NEW QUESTION 372**

Which of the following is the MOST appropriate frequency for updating antivirus signature files for antivirus software on production servers?

- A. Daily
- B. Weekly
- C. Concurrently with O/S patch updates
- D. During scheduled change control updates

**Answer: A**

**Explanation:**

New viruses are being introduced almost daily. The effectiveness of virus detection software depends on frequent updates to its virus signatures, which are stored on antivirus signature files so updates may be carried out several times during the day. At a minimum, daily updating should occur. Patches may occur less frequently. Weekly updates may potentially allow new viruses to infect the system.

**NEW QUESTION 374**

When configuring a biometric access control system that protects a high-security data center, the system's sensitivity level should be set:

- A. to a higher false reject rate (FRR).
- B. to a lower crossover error rate
- C. to a higher false acceptance rate (FAR).
- D. exactly to the crossover error rate

**Answer:** A

**Explanation:**

Biometric access control systems are not infallible. When tuning the solution, one has to adjust the sensitivity level to give preference either to false reject rate (type I error rate) where the system will be more prone to err denying access to a valid user or erring and allowing access to an invalid user. As the sensitivity of the biometric system is adjusted, these values change inversely. At one point, the two values intersect and are equal. This condition creates the crossover error rate, which is a measure of the system accuracy. In systems where the possibility of false rejects is a problem, it may be necessary to reduce sensitivity and thereby increase the number of false accepts. This is sometimes referred to as equal error rate (EER). In a very sensitive system, it may be desirable to minimize the number of false accepts—the number of unauthorized persons allowed access. To do this, the system is tuned to be more sensitive, which causes the false rejects the number of authorized persons disallowed access to increase.

#### **NEW QUESTION 378**

Which of the following is MOST effective in preventing the introduction of a code modification that may reduce the security of a critical business application?

- A. Patch management
- B. Change management
- C. Security metrics
- D. Version control

**Answer:** B

**Explanation:**

Change management controls the process of introducing changes to systems. Failure to have good change management may introduce new weaknesses into otherwise secure systems. Patch management corrects discovered weaknesses by applying a correction to the original program code. Security metrics provide a means for measuring effectiveness. Version control is a subset of change management.

#### **NEW QUESTION 380**

An information security program should be sponsored by:

- A. infrastructure managemen
- B. the corporate audit departmen
- C. key business process owner
- D. information security managemen

**Answer:** C

**Explanation:**

The information security program should ideally be sponsored by business managers, as represented by key business process owners. Infrastructure management is not sufficiently independent and lacks the necessary knowledge regarding specific business requirements. A corporate audit department is not in as good a position to fully understand how an information security program needs to meet the needs of the business. Audit independence and objectivity will be lost, impeding traditional audit functions. Information security implements and executes the program. Although it should promote it at all levels, it cannot sponsor the effort due to insufficient operational knowledge and lack of proper authority.

#### **NEW QUESTION 385**

Which of the following controls would BEST prevent accidental system shutdown from the console or operations area?

- A. Redundant power supplies
- B. Protective switch covers
- C. Shutdown alarms
- D. Biometric readers

**Answer:** B

**Explanation:**

Protective switch covers would reduce the possibility of an individual accidentally pressing the power button on a device, thereby turning off the device. Redundant power supplies would not prevent an individual from powering down a device. Shutdown alarms would be after the fact. Biometric readers would be used to control access to the systems.

#### **NEW QUESTION 386**

Which of the following is the BEST method to provide a new user with their initial password for e-mail system access?

- A. Interoffice a system-generated complex password with 30 days expiration
- B. Give a dummy password over the telephone set for immediate expiration
- C. Require no password but force the user to set their own in 10 days
- D. Set initial password equal to the user ID with expiration in 30 days

**Answer:** B

**Explanation:**

Documenting the password on paper is not the best method even if sent through interoffice mail if the password is complex and difficult to memorize, the user will likely keep the printed password and this creates a security concern. A dummy (temporary) password that will need to be changed upon first logon is the best method because it is reset immediately and replaced with the user's choice of password, which will make it easier for the user to remember. If it is given to the wrong person, the legitimate user will likely notify security if still unable to access the system, so the security risk is low. Setting an account with no initial password

is a security concern even if it is just for a few days. Choice D provides the greatest security threat because user IDs are typically known by both users and security staff, thus compromising access for up to 30 days.

**NEW QUESTION 389**

Which of the following tools is MOST appropriate to assess whether information security governance objectives are being met?

- A. SWOT analysis
- B. Waterfall chart
- C. Gap analysis
- D. Balanced scorecard

**Answer:** D

**Explanation:**

The balanced scorecard is most effective for evaluating the degree to which information security objectives are being met. A SWOT analysis addresses strengths, weaknesses, opportunities and threats. Although useful, a SWOT analysis is not as effective a tool. Similarly, a gap analysis, while useful for identifying the difference between the current state and the desired future state, is not the most appropriate tool. A waterfall chart is used to understand the flow of one process into another.

**NEW QUESTION 390**

The IT function has declared that, when putting a new application into production, it is not necessary to update the business impact analysis (BIA) because it does not produce modifications in the business processes. The information security manager should:

- A. verify the decision with the business unit
- B. check the system's risk analysis
- C. recommend update after post implementation review
- D. request an audit review

**Answer:** A

**Explanation:**

Verifying the decision with the business units is the correct answer because it is not the IT function's responsibility to decide whether a new application modifies business processes. Choice B does not consider the change in the applications. Choices C and D delay the update.

**NEW QUESTION 391**

Which of the following practices completely prevents a man-in-the-middle (MitM) attack between two hosts?

- A. Use security tokens for authentication
- B. Connect through an IPSec VPN
- C. Use https with a server-side certificate
- D. Enforce static media access control (MAC) addresses

**Answer:** B

**Explanation:**

IPSec effectively prevents man-in-the-middle (MitM) attacks by including source and destination IPs within the encrypted portion of the packet. The protocol is resilient to MitM attacks. Using token-based authentication does not prevent a MitM attack; however, it may help eliminate reusability of stolen cleartext credentials. An https session can be intercepted through Domain Name Server (DNS) or Address Resolution Protocol (ARP) poisoning. ARP poisoning—a specific kind of MitM attack—may be prevented by setting static media access control (MAC) addresses. Nevertheless, DNS and NetBIOS resolution can still be attacked to deviate traffic.

**NEW QUESTION 392**

The MAIN goal of an information security strategic plan is to:

- A. develop a risk assessment plan
- B. develop a data protection plan
- C. protect information assets and resources
- D. establish security governance

**Answer:** C

**Explanation:**

The main goal of an information security strategic plan is to protect information assets and resources. Developing a risk assessment plan and a data protection plan, and establishing security governance refer to tools utilized in the security strategic plan that achieve the protection of information assets and resources.

**NEW QUESTION 395**

A border router should be placed on which of the following?

- A. Web server
- B. IDS server
- C. Screened subnet
- D. Domain boundary

**Answer:**



D

**Explanation:**

A border router should be placed on a (security) domain boundary. Placing it on a web server or screened subnet, which is a demilitarized zone (DMZ) would not provide any protection. Border routers are positioned on the boundary of the network, but do not reside on a server.

**NEW QUESTION 399**

At what stage of the applications development process would encryption key management initially be addressed?

- A. Requirements development
- B. Deployment
- C. Systems testing
- D. Code reviews

**Answer:** A

**Explanation:**

Encryption key management has to be integrated into the requirements of the application's design. During systems testing and deployment would be too late since the requirements have already been agreed upon. Code reviews are part of the final quality assurance (QA) process and would also be too late in the process.

**NEW QUESTION 403**

Which of the following is generally used to ensure that information transmitted over the Internet is authentic and actually transmitted by the named sender?

- A. Biometric authentication
- B. Embedded steganographic
- C. Two-factor authentication
- D. Embedded digital signature

**Answer:** D

**Explanation:**

Digital signatures ensure that transmitted information can be attributed to the named sender; this provides nonrepudiation. Steganographic techniques are used to hide messages or data within other files. Biometric and two-factor authentication is not generally used to protect internet data transmissions.

**NEW QUESTION 406**

Which of the following BEST ensures that modifications made to in-house developed business applications do not introduce new security exposures?

- A. Stress testing
- B. Patch management
- C. Change management
- D. Security baselines

**Answer:** C

**Explanation:**

Change management controls the process of introducing changes to systems to ensure that unintended changes are not introduced. Patch management involves the correction of software weaknesses and helps ensure that newly identified exploits are mitigated in a timely fashion. Security baselines provide minimum recommended settings. Stress testing ensures that there are no scalability problems.

**NEW QUESTION 410**

Which of the following devices should be placed within a demilitarized zone (DMZ )?

- A. Network switch
- B. Web server
- C. Database server
- D. File/print server

**Answer:** B

**Explanation:**

A web server should normally be placed within a demilitarized zone (DMZ) to shield the internal network. Database and file/print servers may contain confidential or valuable data and should always be placed on the internal network, never on a DMZ that is subject to compromise. Switches may bridge a DMZ to another network but do not technically reside within the DMZ network segment.

**NEW QUESTION 412**

An organization has adopted a practice of regular staff rotation to minimize the risk of fraud and encourage crosstraining. Which type of authorization policy would BEST address this practice?

- A. Multilevel
- B. Role-based
- C. Discretionary
- D. Attribute-based



**Answer:** B

**Explanation:**

A role-based policy will associate data access with the role performed by an individual, thus restricting access to data required to perform the individual's tasks. Multilevel policies are based on classifications and clearances. Discretionary policies leave access decisions up to information resource managers.

**NEW QUESTION 417**

Security monitoring mechanisms should PRIMARILY:

- A. focus on business-critical informatio
- B. assist owners to manage control risk
- C. focus on detecting network intrusion
- D. record all security violation

**Answer:** A

**Explanation:**

Security monitoring must focus on business-critical information to remain effectively usable by and credible to business users. Control risk is the possibility that controls would not detect an incident or error condition, and therefore is not a correct answer because monitoring would not directly assist in managing this risk. Network intrusions are not the only focus of monitoring mechanisms; although they should record all security violations, this is not the primary objective.

**NEW QUESTION 422**

Which of the following is the MOST important reason why information security objectives should be defined?

- A. Tool for measuring effectiveness
- B. General understanding of goals
- C. Consistency with applicable standards
- D. Management sign-off and support initiatives

**Answer:** A

**Explanation:**

The creation of objectives can be used in part as a source of measurement of the effectiveness of information security management, which feeds into the overall governance. General understanding of goals and consistency with applicable standards are useful, but are not the primary reasons for having clearly defined objectives. Gaining management understanding is important, but by itself will not provide the structure for governance.

**NEW QUESTION 424**

Which of the following ensures that newly identified security weaknesses in an operating system are mitigated in a timely fashion?

- A. Patch management
- B. Change management
- C. Security baselines
- D. Acquisition management

**Answer:** A

**Explanation:**

Patch management involves the correction of software weaknesses and helps ensure that newly identified exploits are mitigated in a timely fashion. Change management controls the process of introducing changes to systems. Security baselines provide minimum recommended settings. Acquisition management controls the purchasing process.

**NEW QUESTION 425**

What is the BEST defense against a Structured Query Language (SQL) injection attack?

- A. Regularly updated signature files
- B. A properly configured firewall
- C. An intrusion detection system
- D. Strict controls on input fields

**Answer:** D

**Explanation:**

Structured Query Language (SQL) injection involves the typing of programming command statements within a data entry field on a web page, usually with the intent of fooling the application into thinking that a valid password has been entered in the password entry field. The best defense against such an attack is to have strict edits on what can be typed into a data input field so that programming commands will be rejected. Code reviews should also be conducted to ensure that such edits are in place and that there are no inherent weaknesses in the way the code is written; software is available to test for such weaknesses. All other choices would fail to prevent such an attack.

**NEW QUESTION 429**

Which of the following is MOST effective in preventing security weaknesses in operating systems?

- A. Patch management

- B. Change management
- C. Security baselines
- D. Configuration management

**Answer:** A

**Explanation:**

Patch management corrects discovered weaknesses by applying a correction (a patch) to the original program code. Change management controls the process of introducing changes to systems. Security baselines provide minimum recommended settings. Configuration management controls the updates to the production environment.

#### NEW QUESTION 432

The advantage of Virtual Private Network (VPN) tunneling for remote users is that it:

- A. helps ensure that communications are secure
- B. increases security between multi-tier system
- C. allows passwords to be changed less frequently
- D. eliminates the need for secondary authentication

**Answer:** A

**Explanation:**

Virtual Private Network (VPN) tunneling for remote users provides an encrypted link that helps ensure secure communications. It does not affect password change frequency, nor does it eliminate the need for secondary authentication or affect security within the internal network.

#### NEW QUESTION 435

When a proposed system change violates an existing security standard, the conflict would be BEST resolved by:

- A. calculating the residual risk
- B. enforcing the security standard
- C. redesigning the system change
- D. implementing mitigating control

**Answer:** A

**Explanation:**

Decisions regarding security should always weigh the potential loss from a risk against the existing controls. Each situation is unique; therefore, it is not advisable to always decide in favor of enforcing a standard. Redesigning the proposed change might not always be the best option because it might not meet the business needs. Implementing additional controls might be an option, but this would be done after the residual risk is known.

#### NEW QUESTION 438

Which of the following, using public key cryptography, ensures authentication, confidentiality and nonrepudiation of a message?

- A. Encrypting first by receiver's private key and second by sender's public key
- B. Encrypting first by sender's private key and second by receiver's public key
- C. Encrypting first by sender's private key and second decrypting by sender's public key
- D. Encrypting first by sender's public key and second by receiver's private key

**Answer:** B

**Explanation:**

Encrypting by the sender's private key ensures authentication. By being able to decrypt with the sender's public key, the receiver would know that the message is sent by the sender only and the sender cannot deny/repudiate the message. By encrypting with the sender's public key secondly, only the sender will be able to decrypt the message and confidentiality is assured. The receiver's private key is private to the receiver and the sender cannot have it for encryption. Similarly, the receiver will not have the private key of the sender to decrypt the second-level encryption. In the case of encrypting first by the sender's private key and, second, decrypting by the sender's public key, confidentiality is not ensured since the message can be decrypted by anyone using the sender's public key. The receiver's private key would not be available to the sender for second-level encryption. Similarly, the sender's private key would not be available to the receiver for decrypting the message.

#### NEW QUESTION 440

Which of the following is a key area of the ISO 27001 framework?

- A. Operational risk assessment
- B. Financial crime metrics
- C. Capacity management
- D. Business continuity management

**Answer:** D

**Explanation:**

Operational risk assessment, financial crime metrics and capacity management can complement the information security framework, but only business continuity management is a key component.

**NEW QUESTION 442**

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