ISC2

Exam Questions SSCP

System Security Certified Practitioner (SSCP)

NEW QUESTION 1
- (Topic 1)
Detective/Technical measures:

A. include intrusion detection systems and automatically-generated violation reports from audit trail information.
B. do not include intrusion detection systems and automatically-generated violation reports from audit trail information.
C. include intrusion detection systems but do not include automatically-generated violation reports from audit trail information.
D. include intrusion detection systems and customised-generated violation reports from audit trail information.

Answer: A

Explanation:
Detective/Technical measures include intrusion detection systems and automatically-generated violation reports from audit trail information. These reports can indicate variations from "normal" operation or detect known signatures of unauthorized access episodes. In order to limit the amount of audit information flagged and reported by automated violation analysis and reporting mechanisms, clipping levels can be set. Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 35.

NEW QUESTION 2
- (Topic 1)
Which is the last line of defense in a physical security sense?

A. people
B. interior barriers
C. exterior barriers
D. perimeter barriers

Answer: A

Explanation:
"Ultimately, people are the last line of defense for your company's assets" (Pastore & Dulaney, 2006, p. 529).
Pastore, M. and Dulaney, E. (2006). CompTIA Security+ study guide: Exam SY0-101. Indianapolis, IN: Sybex.

NEW QUESTION 3
- (Topic 1)
Controlling access to information systems and associated networks is necessary for the preservation of their:

A. Authenticity, confidentiality and availability
B. Confidentiality, integrity, and availability.
C. integrity and availability.
D. authenticity,confidentiality, integrity and availability.

Answer: B

Explanation:
Controlling access to information systems and associated networks is necessary for the preservation of their confidentiality, integrity and availability.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 31.

NEW QUESTION 4
- (Topic 1)
Smart cards are an example of which type of control?

A. Detective control
B. Administrative control
C. Technical control
D. Physical control

Answer: C

Explanation:
Logical or technical controls involve the restriction of access to systems and the protection of information. Smart cards and encryption are examples of these types of control.
Controls are put into place to reduce the risk an organization faces, and they come in three main flavors: administrative, technical, and physical. Administrative controls are commonly referred to as "soft controls" because they are more management-oriented. Examples of administrative controls are security documentation, risk management, personnel security, and training. Technical controls (also called logical controls) are software or hardware components, as in firewalls, IDS, encryption, identification and authentication mechanisms. And physical controls are items put into place to protect facility, personnel, and resources. Examples of physical controls are security guards, locks, fencing, and lighting.
Many types of technical controls enable a user to access a system and the resources within that system. A technical control may be a username and password combination, a Kerberos implementation, biometrics, public key infrastructure (PKI), RADIUS, TACACS +, or authentication using a smart card through a reader connected to a system. These technologies verify the user is who he says he is by using different types of authentication methods. Once a user is properly authenticated, he can be authorized and allowed access to network resources.
Reference(s) used for this question:
Harris, Shon (2012-10-25). CISSP All-in-One Exam Guide, 6th Edition (p. 245). McGraw- Hill. Kindle Edition.
and
KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 2: Access control systems (page 32).

NEW QUESTION 5

- (Topic 1)
Physical security is accomplished through proper facility construction, fire and water
protection, anti-theft mechanisms, intrusion detection systems, and security procedures that are adhered to and enforced. Which of the following is not a component that achieves this type of security?

A. Administrative control mechanisms
B. Integrity control mechanisms
C. Technical control mechanisms
D. Physical control mechanisms

Answer: B

Explanation:
Integrity Controls Mechanisms are not part of physical security. All of the other detractors were correct this one was the wrong one that does not belong to Physical Security. Below you have more details extracted from the SearchSecurity web site: Information security depends on the security and management of the physical space in which computer systems operate. Domain 9 of the CISSP exam's Common Body of Knowledge addresses the challenges of securing the physical space, its systems and the people who work within it by use of administrative, technical and physical controls. The following QUESTION NO: s are covered:
Facilities management: The administrative processes that govern the maintenance and protection of the physical operations space, from site selection through emergency response.
Risks, issues and protection strategies: Risk identification and the selection of security protection components.
Perimeter security: Typical physical protection controls.
Facilities management
Facilities management is a complex component of corporate security that ranges from the planning of a secure physical site to the management of the physical information system environment. Facilities management responsibilities include site selection and physical security planning (i.e. facility construction, design and layout, fire and water damage protection, antitheft mechanisms, intrusion detection and security procedures.) Protections must extend to both people and assets. The necessary level of protection depends on the value of the assets and data. CISSP® candidates must learn the concept of critical-path analysis as a means of determining a component's business function criticality relative to the cost of operation and replacement. Furthermore, students need to gain an understanding of the optimal location and physical attributes of a secure facility. Among the QUESTION NO: s covered in this domain are site inspection, location, accessibility and obscurity, considering the area crime rate, and the likelihood of natural hazards such as floods or earthquakes.
This domain also covers the quality of construction material, such as its protective qualities and load capabilities, as well as how to lay out the structure to minimize risk of forcible entry and accidental damage. Regulatory compliance is also touched on, as is preferred proximity to civil protection services, such as fire and police stations. Attention is given to computer and equipment rooms, including their location, configuration (entrance/egress requirements) and their proximity to wiring distribution centers at the site.
Physical risks, issues and protection strategies
An overview of physical security risks includes risk of theft, service interruption, physical damage, compromised system integrity and unauthorized disclosure of information. Interruptions to business can manifest due to loss of power, services, telecommunications connectivity and water supply. These can also seriously compromise electronic security monitoring alarm/response devices. Backup options are also covered in this domain, as is a strategy for quantifying the risk exposure by simple formula.
Investment in preventive security can be costly. Appropriate redundancy of people skills, systems and infrastructure must be based on the criticality of the data and assets to be preserved. Therefore a strategy is presented that helps determine the selection of cost appropriate controls. Among the QUESTION NO: s covered in this domain are regulatory and legal requirements, common standard security protections such as locks and fences, and the importance of establishing service level agreements for maintenance and disaster support. Rounding out the optimization approach are simple calculations for determining mean time between failure and mean time to repair (used to estimate average equipment life expectancy) — essential for estimating the cost/benefit of purchasing and maintaining redundant equipment.
As the lifeblood of computer systems, special attention is placed on adequacy, quality and protection of power supplies. CISSP candidates need to understand power supply concepts and terminology, including those for quality (i.e. transient noise vs. clean power); types of interference (EMI and RFI); and types of interruptions such as power excess by spikes and surges, power loss by fault or blackout, and power degradation from sags and brownouts. A simple formula is presented for determining the total cost per hour for backup power. Proving power reliability through testing is recommended and the advantages of three power protection approaches are discussed (standby UPS, power line conditioners and backup sources) including minimum requirements for primary and alternate power provided.
Environmental controls are explored in this domain, including the value of positive pressure water drains and climate monitoring devices used to control temperature, humidity and reduce static electricity. Optimal temperatures and humidity settings are provided.
Recommendations include strict procedures during emergencies, preventing typical risks (such as blocked fans), and the use of antistatic armbands and hygrometers. Positive pressurization for proper ventilation and monitoring for air born contaminants is stressed.
The pros and cons of several detection response systems are deeply explored in this domain. The concept of combustion, the classes of fire and fire extinguisher ratings are detailed. Mechanisms behind smoke-activated, heat-activated and flame-activated devices and Automatic Dial-up alarms are covered, along with their advantages, costs and shortcomings. Types of fire sources are distinguished and the effectiveness of fire suppression methods for each is included. For instance, Halon and its approved replacements are covered, as are the advantages and the inherent risks to equipment of the use of water sprinklers.
Administrative controls
The physical security domain also deals with administrative controls applied to physical sites and assets. The need for skilled personnel, knowledge sharing between them, separation of duties, and appropriate oversight in the care and maintenance of equipment and environments is stressed. A list of management duties including hiring checks, employee maintenance activities and recommended termination procedures is offered. Emergency measures include accountability for evacuation and system shutdown procedures, integration with disaster and business continuity plans, assuring documented procedures are easily available during different types of emergencies, the scheduling of periodic equipment testing, administrative reviews of documentation, procedures and recovery plans, responsibilities delegation, and personnel training and drills.
Perimeter security
Domain nine also covers the devices and techniques used to control access to a space. These include access control devices, surveillance monitoring, intrusion detection and corrective actions. Specifications are provided for optimal external boundary protection, including fence heights and placement, and lighting placement and types. Selection of door types and lock characteristics are covered. Surveillance methods and intrusion-detection methods are explained, including the use of video monitoring, guards, dogs, proximity detection systems, photoelectric/photometric systems, wave pattern devices, passive infrared systems, and sound and motion detectors, and current flow sensitivity devices that specifically address computer theft. Room lock types — both preset and cipher locks (and their variations) -- device locks, such as portable laptop locks, lockable server bays, switch control locks and slot locks, port controls, peripheral switch controls and cable trap locks are also covered. Personal access control methods used to identify authorized users for site entry are covered at length, noting social engineering risks such as piggybacking. Wireless proximity devices, both user access and system sensing readers are covered (i.e. transponder based, passive devices and field powered devices) in this domain.
Now that you've been introduced to the key concepts of Domain 9, watch the Domain 9, Physical Security video
Return to the CISSP Essentials Security School main page
See all SearchSecurity.com's resources on CISSP certification training Source: HARRIS, Shon, All-In-One CISSP Certification Exam Guide, McGraw-Hill/Osborne, 2001, Page 280.

NEW QUESTION 6

- (Topic 1)
A potential problem related to the physical installation of the Iris Scanner in regards to the usage of the iris pattern within a biometric system is:

A. concern that the laser beam may cause eye damage
B. the iris pattern changes as a person grows older.
C. there is a relatively high rate of false accepts.
D. the optical unit must be positioned so that the sun does not shine into the aperture.

Answer: D

Explanation:
Because the optical unit utilizes a camera and infrared light to create the images, sun light can impact the aperture so it must not be positioned in direct light of any type. Because the subject does not need to have direct contact with the optical reader, direct light can impact the reader.
An Iris recognition is a form of biometrics that is based on the uniqueness of a subject's iris. A camera like device records the patterns of the iris creating what is known as Iriscode.
It is the unique patterns of the iris that allow it to be one of the most accurate forms of biometric identification of an individual. Unlike other types of biometics, the iris rarely changes over time. Fingerprints can change over time due to scaring and manual labor, voice patterns can change due to a variety of causes, hand geometry can also change as well. But barring surgery or an accident it is not usual for an iris to change. The subject has a high-resoulution image taken of their iris and this is then converted to Iriscode. The current standard for the Iriscode was developed by John Daugman. When the subject attempts to be authenticated an infrared light is used to capture the iris image and this image is then compared to the Iriscode. If there is a match the subject's identity is confirmed. The subject does not need to have direct contact with the optical reader so it is a less invasive means of authentication then retinal scanning would be.
Reference(s) used for this question: AIO, 3rd edition, Access Control, p 134. AIO, 4th edition, Access Control, p 182.
Wikipedia - http://en.wikipedia.org/wiki/Iris_recognition The following answers are incorrect:
concern that the laser beam may cause eye damage. The optical readers do not use laser so, concern that the laser beam may cause eye damage is not an issue.
the iris pattern changes as a person grows older. The question asked about the physical installation of the scanner, so this was not the best answer. If the question would have been about long term problems then it could have been the best choice. Recent research has shown that Irises actually do change over time:
http://www.nature.com/news/ageing- eyes-hinder-biometric-scans-1.10722
there is a relatively high rate of false accepts. Since the advent of the Iriscode there is a very low rate of false accepts, in fact the algorithm used has never had a false match. This all depends on the quality of the equipment used but because of the uniqueness of the iris even when comparing identical twins, iris patterns are unique.

NEW QUESTION 7
- (Topic 1)
Which of the following is implemented through scripts or smart agents that replays the users multiple log-ins against authentication servers to verify a user's identity which permit access to system services?

A. Single Sign-On
B. Dynamic Sign-On
C. Smart cards
D. Kerberos

Answer: A

Explanation:
SSO can be implemented by using scripts that replay the users multiple log- ins against authentication servers to verify a user's identity and to permit access to system services.
Single Sign on was the best answer in this case because it would include Kerberos. When you have two good answers within the 4 choices presented you must select the
BEST one. The high level choice is always the best. When one choice would include the
other one that would be the best as well.
Reference(s) used for this question:
KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 40.

NEW QUESTION 8
- (Topic 1)
Crime Prevention Through Environmental Design (CPTED) is a discipline that:

A. Outlines how the proper design of a physical environment can reduce crime by directly affecting human behavior.
B. Outlines how the proper design of the logical environment can reduce crime by directly affecting human behavior.
C. Outlines how the proper design of the detective control environment can reduce crime by directly affecting human behavior.
D. Outlines how the proper design of the administrative control environment can reduce crime by directly affecting human behavior.

Answer: A

Explanation:
Crime Prevention Through Environmental Design (CPTED) is a discipline that outlines how the proper design of a physical environment can reduce crime by directly affecting human behavior. It provides guidance about lost and crime prevention through proper facility contruction and environmental components and procedures.
CPTED concepts were developed in the 1960s. They have been expanded upon and have matured as our environments and crime types have evolved. CPTED has been used not just to develop corporate physical security programs, but also for large-scale activities such as development of neighborhoods, towns, and cities. It addresses landscaping, entrances, facility and neighborhood layouts, lighting, road placement, and traffic circulation patterns. It looks at microenvironments, such as offices and rest-rooms, and macroenvironments, like campuses and cities.
Reference(s) used for this question:
Harris, Shon (2012-10-18). CISSP All-in-One Exam Guide, 6th Edition (p. 435). McGraw- Hill. Kindle Edition.
and
CPTED Guide Book

NEW QUESTION 9
- (Topic 1)
Which of the following biometric characteristics cannot be used to uniquely authenticate an individual's identity?

A. Retina scans
B. Iris scans
C. Palm scans
D. Skin scans

Answer: D

Explanation:
The following are typical biometric characteristics that are used to uniquely authenticate an individual's identity:
Fingerprints Retina scans Iris scans Facial scans Palm scans Hand geometry Voice
Handwritten signature dynamics
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 39.
And: HARRIS, Shon, All-In-One CISSP Certification Exam Guide, McGraw-Hill/Osborne, 2002, chapter 4: Access Control (pages 127-131).

NEW QUESTION 10
- (Topic 1)
To control access by a subject (an active entity such as individual or process) to an object (a passive entity such as a file) involves setting up:

A. Access Rules
B. Access Matrix
C. Identification controls
D. Access terminal

Answer: A

Explanation:
Controlling access by a subject (an active entity such as individual or process) to an object (a passive entity such as a file) involves setting up access rules.
These rules can be classified into three access control models: Mandatory, Discretionary, and Non-Discretionary.
An access matrix is one of the means used to implement access control.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 33.

NEW QUESTION 10
- (Topic 1)
Which of the following is most affected by denial-of-service (DOS) attacks?

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

Answer: D

Explanation:
Denial of service attacks obviously affect availability of targeted systems. Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 3: Telecommunications and Network Security (page 61).

NEW QUESTION 11
- (Topic 1)
Which of the following offers advantages such as the ability to use stronger passwords, easier password administration, one set of credential, and faster resource access?

A. Smart cards
B. Single Sign-On (SSO)
C. Symmetric Ciphers
D. Public Key Infrastructure (PKI)

Answer: B

Explanation:
The advantages of SSO include having the ability to use stronger passwords, easier administration as far as changing or deleting the passwords, minimize the risks of orphan accounts, and requiring less time to access resources.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 39.

NEW QUESTION 15
- (Topic 1)
Which integrity model defines a constrained data item, an integrity verification procedure and a transformation procedure?

A. The Take-Grant model
B. The Biba integrity model
C. The Clark Wilson integrity model
D. The Bell-LaPadula integrity model

Answer: C

Explanation:
The Clark Wilson integrity model addresses the three following integrity goals: 1) data is protected from modification by unauthorized users; 2) data is protected from unauthorized modification by authorized users; and 3) data is internally and externally consistent. It also defines a Constrained Data Item (CDI), an Integrity Verification Procedure (IVP), a Transformation Procedure (TP) and an Unconstrained Data item. The Bell-LaPadula and Take-Grant models are not integrity

models.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 5: Security Architecture and Models (page 205).

NEW QUESTION 18
- (Topic 1)
What does the Clark-Wilson security model focus on?

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

Answer: B

Explanation:
The Clark-Wilson model addresses integrity. It incorporates mechanisms to enforce internal and external consistency, a separation of duty, and a mandatory integrity policy.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 5: Security Architectures and Models (page 205).

NEW QUESTION 22
- (Topic 1)
Organizations should consider which of the following first before allowing external access to their LANs via the Internet?

A. plan for implementing workstation locking mechanisms.
B. plan for protecting the modem pool.
C. plan for providing the user with his account usage information.
D. plan for considering proper authentication options.

Answer: D

Explanation:
Before a LAN is connected to the Internet, you need to determine what the
access controls mechanisms are to be used, this would include how you are going to authenticate individuals that may access your network externally through access control.
The following answers are incorrect:
plan for implementing workstation locking mechanisms. This is incorrect because locking the workstations have no impact on the LAN or Internet access.
plan for protecting the modem pool. This is incorrect because protecting the modem pool has no impact on the LAN or Internet access, it just protects the modem.
plan for providing the user with his account usage information. This is incorrect because the question asks what should be done first. While important your primary concern should be focused on security.

NEW QUESTION 27
- (Topic 1)
Which of the following biometric devices has the lowest user acceptance level?

A. Retina Scan
B. Fingerprint scan
C. Hand geometry
D. Signature recognition

Answer: A

Explanation:
According to the cited reference, of the given options, the Retina scan has the lowest user acceptance level as it is needed for the user to get his eye close to a device and it is not user friendly and very intrusive.
However, retina scan is the most precise with about one error per 10 millions usage. Look at the 2 tables below. If necessary right click on the image and save it on your
desktop for a larger view or visit the web site directly at
https://sites.google.com/site/biometricsecuritysolutions/crossover-accuracy . Biometric Comparison Chart

BIOMETRICS COMPARISON CHART

Biometric	Verify	ID	Accuracy	Reliability	Error Rate	Errors	False Pos.	False Neg.
Fingerprint	Yes	Yes	Very High	High	1 in 500+	dryness, dirt, age	Ext. Diff.	Ext. Diff.
Facial Recognition	Yes	No	High	Medium	no data	lighting, age, glasses, hair	Difficult	Easy
Hand Geometry	Yes	No	High	Medium	1 in 500	hand injury, age	Very Diff.	Medium
Speaker Recognition	Yes	No	Medium	Low	1 in 50	noise, weather, colds	Medium	Easy
Iris Scan	Yes	Yes	Very High	High	1 in 131,000	poor lighting	Very Diff.	Very Diff.
Retinal Scan	Yes	Yes	Very High	High	1 in 10,000,000	glasses	Ext. Diff.	Ext. Diff.
Signature Recognition	Yes	No	Medium	Low	1 in 50	changing signatures	Medium	Easy
Keystroke Recognition	Yes	No	Low	Low	no data	hand injury, tiredness	Difficult	Easy
DNA	Yes	Yes	Very High	High	no data	none	Ext. Diff.	Ext. Diff.

Biometric	Security Level	Long-term Stability	User Acceptance	Intrusive	Ease of Use	Low Cost	Hardware	Standards
Fingerprint	High	High	Medium	Somewhat	High	Yes	Special, cheap	Yes
Facial Recognition	Medium	Medium	Medium	Non	Medium	Yes	Common, cheap	?
Hand Geometry	Medium	Medium	Medium	Non	High	No	Special, mid-price	?
Speaker Recognition	Medium	Medium	High	Non	High	Yes	Common, cheap	?
Iris Scan	High	High	Medium	Non	Medium	No	Special, expensive	?
Retinal Scan	High	High	Medium	Very	Low	No	Special, expensive	?
Signature Recognition	Medium	Medium	Medium	Non	High	Yes	Special, mid-price	?
Keystroke Recognition	Medium	Low	High	Non	High	Yes	Common, cheap	?
DNA	High	High	Low	Extremely	Low	No	Special, expensive	Yes

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Aspect descriptions:

Verify	Whether or not the Biometric is capable of verification. Verification is the process where an input is compared to specific data previously recorded from the user to see if the person is who they claim to be.
ID	Whether or not the Biometric is capable of identification. Identification is the process where an input is compared to a large data set previously recorded from many peopleto see which person the user is.
Accuracy	How well the Biometric is able to tell individuals apart. This is partially determined by the amount of information gathered as well as the number of possible different data results.
Reliability	How dependable the Biometric is for recognition purposes.
Error Rate	This is calculated as the crossing point when graphed of false positives and false negtives created using this Biometric.
Errors	Typical causes of errors for this Biometric.
False Pos.	How easy it is to create a false positive reading with this biometric (someone is able to impersonate someone else).
False Neg.	How easy it is to create a false negative reading with this biometric (someone is able to avoid identification as oneself).
Security Level	The highest level of security that this Biometric is capable of working at.
Long-term Stability	How well this Biometric continues to work without data updates over long periods of time.
User Acceptance	How willing the public is to use this Biometric.
Intrusiveness	How much the Biometric is considered to invade one's privacy or require interaction by the user.
Ease of Use	How easy this Biometric is for both the user and the personnel involved.
Low Cost	Whether or not there is a low-cost option for this Biometric to be used.
Hardware	Type and cost of hardware required to use this Biometric.
Standards	Whether or not standards exist for this Biometric.

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Biometric Aspect Descriptions Reference(s) used for this question:
RHODES, Keith A., Chief Technologist, United States General Accounting Office, National Preparedness, Technologies to Secure Federal Buildings, April 2002 (page 10).
and
https://sites.google.com/site/biometricsecuritysolutions/crossover-accuracy

NEW QUESTION 32
- (Topic 1)
Which of the following is most relevant to determining the maximum effective cost of access control?

A. the value of information that is protected
B. management's perceptions regarding data importance
C. budget planning related to base versus incremental spending.
D. the cost to replace lost data

Answer: A

Explanation:
The cost of access control must be commensurate with the value of the information that is being protected.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 49.

NEW QUESTION 37
- (Topic 1)
Which access control type has a central authority that determine to what objects the subjects have access to and it is based on role or on the organizational security policy?

A. Mandatory Access Control
B. Discretionary Access Control
C. Non-Discretionary Access Control
D. Rule-based Access control

Answer: C

Explanation:
Non Discretionary Access Control include Role Based Access Control (RBAC) and Rule Based Access Control (RBAC or RuBAC). RABC being a subset of NDAC, it was easy to eliminate RBAC as it was covered under NDAC already.
Some people think that RBAC is synonymous with NDAC but RuBAC would also fall into this category.
Discretionary Access control is for environment with very low level of security. There is no control on the dissemination of the information. A user who has access to a file can copy the file or further share it with other users.
Rule Based Access Control is when you have ONE set of rules applied uniformly to all users. A good example would be a firewall at the edge of your network. A single rule based is applied against any packets received from the internet.
Mandatory Access Control is a very rigid type of access control. The subject must dominate the object and the subject must have a Need To Know to access the information. Objects have labels that indicate the sensitivity (classification) and there is also categories to enforce the Need To Know (NTK).
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the
Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 33.

NEW QUESTION 42
- (Topic 1)
The control measures that are intended to reveal the violations of security policy using software and hardware are associated with:

A. Preventive/physical
B. Detective/technical
C. Detective/physical
D. Detective/administrative

Answer: B

Explanation:
The detective/technical control measures are intended to reveal the violations of security policy using technical means.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the

Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 35.

NEW QUESTION 43
- (Topic 1)
Which of the following would assist the most in Host Based intrusion detection?

A. audit trails.
B. access control lists.
C. security clearances.
D. host-based authentication.

Answer: A

Explanation:
To assist in Intrusion Detection you would review audit logs for access violations.
The following answers are incorrect:
access control lists. This is incorrect because access control lists determine who has access to what but do not detect intrusions.
security clearances. This is incorrect because security clearances determine who has access to what but do not detect intrusions.
host-based authentication. This is incorrect because host-based authentication determine who have been authenticated to the system but do not dectect intrusions.

NEW QUESTION 46
- (Topic 1)
Which of the following is the most reliable authentication method for remote access?

A. Variable callback system
B. Synchronous token
C. Fixed callback system
D. Combination of callback and caller ID

Answer: B

Explanation:
A Synchronous token generates a one-time password that is only valid for a short period of time. Once the password is used it is no longer valid, and it expires if not entered in the acceptable time frame.
The following answers are incorrect:
Variable callback system. Although variable callback systems are more flexible than fixed callback systems, the system assumes the identity of the individual unless two-factor authentication is also implemented. By itself, this method might allow an attacker access as a trusted user.
Fixed callback system. Authentication provides assurance that someone or something is who or what he/it is supposed to be. Callback systems authenticate a person, but anyone can pretend to be that person. They are tied to a specific place and phone number, which can be spoofed by implementing call-forwarding.
Combination of callback and Caller ID. The caller ID and callback functionality provides greater confidence and auditability of the caller's identity. By disconnecting and calling back only authorized phone numbers, the system has a greater confidence in the location of the call. However, unless combined with strong authentication, any individual at the location could obtain access.
The following reference(s) were/was used to create this question: Shon Harris AIO v3 p. 140, 548
ISC2 OIG 2007 p. 152-153, 126-127

NEW QUESTION 50
- (Topic 1)
What is the main objective of proper separation of duties?

A. To prevent employees from disclosing sensitive information.
B. To ensure access controls are in place.
C. To ensure that no single individual can compromise a system.
D. To ensure that audit trails are not tampered with.

Answer: C

Explanation:
The primary objective of proper separation of duties is to ensure that one person acting alone cannot compromise the company's security in any way. A proper separation of duties does not prevent employees from disclosing information, nor does it ensure that access controls are in place or that audit trails are not tampered with. Source: HARRIS, Shon, All-In-One CISSP Certification Exam Guide, McGraw- Hill/Osborne, 2002, Chapter 12: Operations Security (Page 808).

NEW QUESTION 51
- (Topic 1)
Which of the following is not a physical control for physical security?

A. lighting
B. fences
C. training
D. facility construction materials

Answer: C

Explanation:
Some physical controls include fences, lights, locks, and facility construction materials. Some administrative controls include facility selection and construction, facility management, personnel controls, training, and emergency response and procedures.
From: HARRIS, Shon, All-In-One CISSP Certification Exam Guide, McGraw-Hill/Osborne, 3rd. Ed., Chapter 6, page 403.

NEW QUESTION 53
- (Topic 1)
Pin, Password, Passphrases, Tokens, smart cards, and biometric devices are all items that can be used for Authentication. When one of these item listed above in conjunction with a second factor to validate authentication, it provides robust authentication of the individual by practicing which of the following?

A. Multi-party authentication
B. Two-factor authentication
C. Mandatory authentication
D. Discretionary authentication

Answer: B

Explanation:
Once an identity is established it must be authenticated. There exist numerous technologies and implementation of authentication methods however they almost all fall under three major areas.
There are three fundamental types of authentication: Authentication by knowledge—something a person knows
Authentication by possession—something a person has
Authentication by characteristic—something a person is Logical controls related to these types are called “factors.”
Something you know can be a password or PIN, something you have can be a token fob or smart card, and something you are is usually some form of biometrics.
Single-factor authentication is the employment of one of these factors, two-factor authentication is using two of the three factors, and three-factor authentication is the combination of all three factors.
The general term for the use of more than one factor during authentication is multifactor authentication or strong authentication.
Reference(s) used for this question:
Hernandez CISSP, Steven (2012-12-21). Official (ISC)2 Guide to the CISSP CBK, Third Edition ((ISC)2 Press) (Kindle Locations 2367-2379). Auerbach Publications. Kindle Edition.

NEW QUESTION 55
- (Topic 1)
The three classic ways of authenticating yourself to the computer security software are by something you know, by something you have, and by something:

A. you need.
B. non-trivial
C. you are.
D. you can get.

Answer: C

Explanation:
This is more commonly known as biometrics and is one of the most accurate ways to authenticate an individual.
The rest of the answers are incorrect because they not one of the three recognized forms for Authentication.

NEW QUESTION 57
- (Topic 1)
In biometric identification systems, at the beginning, it was soon apparent that truly positive identification could only be based on physical attributes of a person. This raised the necessity of answering 2 questions :

A. what was the sex of a person and his age
B. what part of body to be used and how to accomplish identification that is viable
C. what was the age of a person and his income level
D. what was the tone of the voice of a person and his habits

Answer: B

Explanation:
Today implementation of fast, accurate reliable and user-acceptable biometric identification systems is already taking place. Unique physical attributes or behavior of a person are used for that purpose.
From: TIPTON, Harold F. & KRAUSE, MICKI, Information Security Management Handbook, 4th Edition, Volume 1, Page 7.

NEW QUESTION 61
- (Topic 1)
Which of the following forms of authentication would most likely apply a digital signature algorithm to every bit of data that is sent from the claimant to the verifier?

A. Dynamic authentication
B. Continuous authentication
C. Encrypted authentication
D. Robust authentication

Answer: B

Explanation:
Continuous authentication is a type of authentication that provides protection against impostors who can see, alter, and insert information passed between the claimant and verifier even after the claimant/verifier authentication is complete. These are typically referred to as active attacks, since they assume that the imposter can actively influence the connection between claimant and verifier. One way to provide this form of authentication is to apply a digital signature algorithm to every bit of data that is sent from the claimant to the verifier. There are other combinations of cryptography that can provide this form of authentication but current strategies rely on applying some type of cryptography to every bit
of data sent. Otherwise, any unprotected bit would be suspect. Robust authentication relies on dynamic authentication data that changes with each authenticated session between a claimant and a verifier, but does not provide protection against active attacks. Encrypted authentication is a distracter.
Source: GUTTMAN, Barbara & BAGWILL, Robert, NIST Special Publication 800-xx, Internet Security Policy: A Technical Guide, Draft Version, May 25, 2000 (page 34).

NEW QUESTION 63
- (Topic 1)
A department manager has read access to the salaries of the employees in his/her department but not to the salaries of employees in other departments. A database security mechanism that enforces this policy would typically be said to provide which of the following?

A. Content-dependent access control
B. Context-dependent access control
C. Least privileges access control
D. Ownership-based access control

Answer: A

Explanation:
When access control is based on the content of an object, it is considered to be content dependent access control.
Content-dependent access control is based on the content itself. The following answers are incorrect:
context-dependent access control. Is incorrect because this type of control is based on what the context is, facts about the data rather than what the object contains.
least privileges access control. Is incorrect because this is based on the least amount of rights needed to perform their jobs and not based on what is contained in the database. ownership-based access control. Is incorrect because this is based on the owner of the data and and not based on what is contained in the database.
References:
OIG CBK Access Control (page 191)

NEW QUESTION 68
- (Topic 1)
In biometric identification systems, at the beginning, it was soon apparent that truly positive identification could only be based on :

A. sex of a person
B. physical attributes of a person
C. age of a person
D. voice of a person

Answer: B

Explanation:
Today implementation of fast, accurate reliable and user-acceptable biometric identification systems is already under way.
From: TIPTON, Harold F. & KRAUSE, MICKI, Information Security Management Handbook, 4th Edition, Volume 1, Page 7.

NEW QUESTION 72
- (Topic 1)
Which of the following floors would be most appropriate to locate information processing facilities in a 6-stories building?

A. Basement
B. Ground floor
C. Third floor
D. Sixth floor

Answer: C

Explanation:
You data center should be located in the middle of the facility or the core of a building to provide protection from natural disasters or bombs and provide easier access to emergency crewmembers if necessary. By being at the core of the facility the external wall would act as a secondary layer of protection as well.
Information processing facilities should not be located on the top floors of buildings in case of a fire or flooding coming from the roof. Many crimes and theft have also been conducted by simply cutting a large hole on the roof.
They should not be in the basement because of flooding where water has a natural tendancy to flow down :-) Even a little amount of water would affect your operation
considering the quantity of electrical cabling sitting directly on the cement floor under under your raise floor.
The data center should not be located on the first floor due to the presence of the main entrance where people are coming in and out. You have a lot of high traffic areas such as the elevators, the loading docks, cafeteria, coffee shopt, etc.. Really a bad location for a data center.
So it was easy to come up with the answer by using the process of elimination where the top, the bottom, and the basement are all bad choices. That left you with only one possible answer which is the third floor.
Source: HARRIS, Shon, All-In-One CISSP Certification Exam Guide, 5th Edition, Page 425.

NEW QUESTION 77
- (Topic 1)
Access control is the collection of mechanisms that permits managers of a system to exercise a directing or restraining influence over the behavior, use, and content of a system. It does not permit management to:

A. specify what users can do
B. specify which resources they can access
C. specify how to restrain hackers
D. specify what operations they can perform on a system.

Answer: C

Explanation:
Access control is the collection of mechanisms that permits managers of a system to exercise a directing or restraining influence over the behavior, use, and content of a system. It permits management to specify what users can do, which resources they can access, and what operations they can perform on a system.
Specifying HOW to restrain hackers is not directly linked to access control.
Source: DUPUIS, Clement, Access Control Systems and Methodology, Version 1, May 2002, CISSP Open Study Group Study Guide for Domain 1, Page 12.

NEW QUESTION 79
- (Topic 1)
Which of the following questions is less likely to help in assessing physical access controls?

A. Does management regularly review the list of persons with physical access to sensitive facilities?
B. Is the operating system configured to prevent circumvention of the security software and application controls?
C. Are keys or other access devices needed to enter the computer room and media library?
D. Are visitors to sensitive areas signed in and escorted?

Answer: B

Explanation:
Physical security and environmental security are part of operational controls, and are measures taken to protect systems, buildings, and related supporting infrastructures against threats associated with their physical environment. All the questions above are useful in assessing physical access controls except for the one regarding operating system configuration, which is a logical access control.
Source: SWANSON, Marianne, NIST Special Publication 800-26, Security Self- Assessment Guide for Information Technology Systems, November 2001 (Pages A-21 to A-24).

NEW QUESTION 80
- (Topic 1)
Which of the following biometric parameters are better suited for authentication use over a long period of time?

A. Iris pattern
B. Voice pattern
C. Signature dynamics
D. Retina pattern

Answer: A

Explanation:
The iris pattern is considered lifelong. Unique features of the iris are: freckles, rings, rifts, pits, striations, fibers, filaments, furrows, vasculature and coronas. Voice, signature and retina patterns are more likely to change over time, thus are not as suitable for authentication over a long period of time without needing re-enrollment. Source: FERREL, Robert G, Questions and Answers for the CISSP Exam, domain 1 (derived from the Information Security Management Handbook, 4th Ed., by Tipton & Krause).

NEW QUESTION 82
- (Topic 1)
Who first described the DoD multilevel military security policy in abstract, formal terms?

A. David Bell and Leonard LaPadula
B. Rivest, Shamir and Adleman
C. Whitfield Diffie and Martin Hellman
D. David Clark and David Wilson

Answer: A

Explanation:
It was David Bell and Leonard LaPadula who, in 1973, first described the DoD multilevel military security policy in abstract, formal terms. The Bell-LaPadula is a Mandatory Access Control (MAC) model concerned with confidentiality. Rivest, Shamir and Adleman (RSA) developed the RSA encryption algorithm. Whitfield Diffie and Martin Hellman published the Diffie-Hellman key agreement algorithm in 1976. David Clark and David Wilson developed the Clark-Wilson integrity model, more appropriate for security in commercial activities.
Source: RUSSEL, Deborah & GANGEMI, G.T. Sr., Computer Security Basics, O'Reilly, July 1992 (pages 78,109).

NEW QUESTION 85
- (Topic 1)
What is the name of the first mathematical model of a multi-level security policy used to define the concept of a secure state, the modes of access, and rules for granting access?

A. Clark and Wilson Model
B. Harrison-Ruzzo-Ullman Model
C. Rivest and Shamir Model
D. Bell-LaPadula Model

Answer: D

Explanation:
Source: TIPTON, Hal, (ISC)2, Introduction to the CISSP Exam presentation.

NEW QUESTION 90
- (Topic 1)
Which of the following is true about Kerberos?

A. It utilizes public key cryptography.
B. It encrypts data after a ticket is granted, but passwords are exchanged in plain text.
C. It depends upon symmetric ciphers.
D. It is a second party authentication system.

Answer:

C

Explanation:
Kerberos depends on secret keys (symmetric ciphers). Kerberos is a third party authentication protocol. It was designed and developed in the mid 1980's by MIT. It is considered open source but is copyrighted and owned by MIT. It relies on the user's secret keys. The password is used to encrypt and decrypt the keys.
The following answers are incorrect:
It utilizes public key cryptography. Is incorrect because Kerberos depends on secret keys (symmetric ciphers).
It encrypts data after a ticket is granted, but passwords are exchanged in plain text. Is incorrect because the passwords are not exchanged but used for encryption and decryption of the keys.
It is a second party authentication system. Is incorrect because Kerberos is a third party authentication system, you authenticate to the third party (Kerberos) and not the system you are accessing.
References:
MIT http://web.mit.edu/kerberos/
Wikipedi http://en.wikipedia.org/wiki/Kerberos_%28protocol%29
OIG CBK Access Control (pages 181 - 184) AIOv3 Access Control (pages 151 - 155)

NEW QUESTION 92
- (Topic 1)
Which of the following remote access authentication systems is the most robust?

A. TACACS+
B. RADIUS
C. PAP
D. TACACS

Answer: A

Explanation:
TACACS+ is a proprietary Cisco enhancement to TACACS and is more robust than RADIUS. PAP is not a remote access authentication system but a remote node security protocol.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 3: Telecommunications and Network Security (page 122).

NEW QUESTION 94
- (Topic 1)
What does the (star) integrity axiom mean in the Biba model?

A. No read up
B. No write down
C. No read down
D. No write up

Answer: D

Explanation:
The (star) integrity axiom of the Biba access control model states that an object at one level of integrity is not permitted to modify an object of a higher level of integrity (no write up).
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 5: Security Architectures and Models (page 205).

NEW QUESTION 99
- (Topic 1)
What is called a sequence of characters that is usually longer than the allotted number for a password?

A. passphrase
B. cognitive phrase
C. anticipated phrase
D. Real phrase

Answer: A

Explanation:
A passphrase is a sequence of characters that is usually longer than the allotted number for a password.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, page 37.

NEW QUESTION 100
- (Topic 1)
This is a common security issue that is extremely hard to control in large environments. It occurs when a user has more computer rights, permissions, and access than what is required for the tasks the user needs to fulfill. What best describes this scenario?

A. Excessive Rights
B. Excessive Access
C. Excessive Permissions
D. Excessive Privileges

Answer: D

Explanation:

Even thou all 4 terms are very close to each other, the best choice is Excessive Privileges which would include the other three choices presented.
Reference(s) used for this question:
HARRIS, Shon, All-In-One CISSP Certification Exam Guide, McGraw-Hill/Osborne, 2001, Page 645.
and

NEW QUESTION 104
- (Topic 1)
Which of the following can be defined as a framework that supports multiple, optional authentication mechanisms for PPP, including cleartext passwords, challenge-response, and arbitrary dialog sequences?

A. Extensible Authentication Protocol
B. Challenge Handshake Authentication Protocol
C. Remote Authentication Dial-In User Service
D. Multilevel Authentication Protocol.

Answer: A

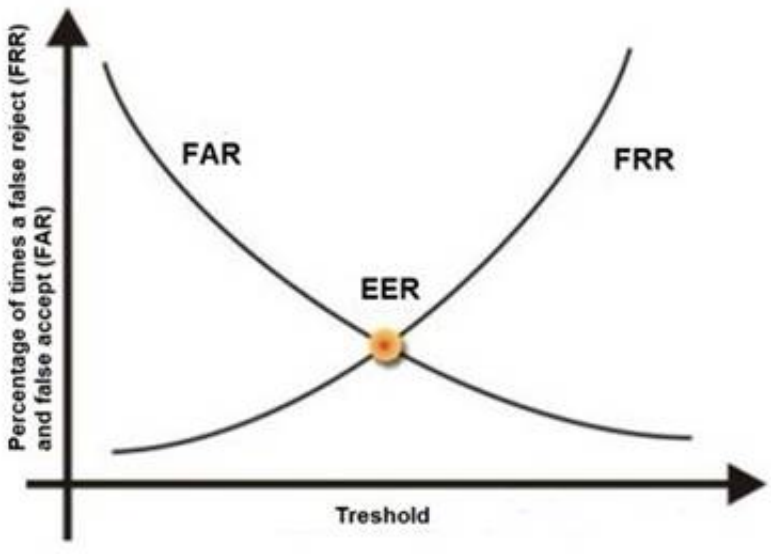
Explanation:
RFC 2828 (Internet Security Glossary) defines the Extensible Authentication Protocol as a framework that supports multiple, optional authentication mechanisms for PPP, including cleartext passwords, challenge-response, and arbitrary dialog sequences. It is intended for use primarily by a host or router that connects to a PPP network server via switched circuits or dial-up lines. The Remote Authentication Dial-In User Service (RADIUS) is defined as an Internet protocol for carrying dial-in user's authentication information and configuration information between a shared, centralized authentication server and a network access server that needs to authenticate the users of its network access ports. The other option is a distracter.
Source: SHIREY, Robert W., RFC2828: Internet Security Glossary, may 2000.

NEW QUESTION 105
- (Topic 1)
When a biometric system is used, which error type deals with the possibility of GRANTING access to impostors who should be REJECTED?

A. Type I error
B. Type II error
C. Type III error
D. Crossover error

Answer: B

Explanation:
When the biometric system accepts impostors who should have been rejected , it is called a Type II error or False Acceptance Rate or False Accept Rate.
Biometrics verifies an individual’s identity by analyzing a unique personal attribute or behavior, which is one of the most effective and accurate methods of verifying identification.
Biometrics is a very sophisticated technology; thus, it is much more expensive and complex than the other types of identity verification processes. A biometric system can make authentication decisions based on an individual’s behavior, as in signature dynamics, but these can change over time and possibly be forged. Biometric systems that base authentication decisions on physical attributes (iris, retina, fingerprint) provide more accuracy, because physical attributes typically don’t change much, absent some disfiguring injury, and are harder to impersonate.
When a biometric system rejects an authorized individual, it is called a Type I error (False Rejection Rate (FRR) or False Reject Rate (FRR)).
When the system accepts impostors who should be rejected, it is called a Type II error (False Acceptance Rate (FAR) or False Accept Rate (FAR)). Type II errors are the most dangerous and thus the most important to avoid.
The goal is to obtain low numbers for each type of error, but When comparing different biometric systems, many different variables are used, but one of the most important metrics is the crossover error rate (CER).
The accuracy of any biometric method is measured in terms of Failed Acceptance Rate (FAR) and Failed Rejection Rate (FRR). Both are expressed as percentages. The FAR is the rate at which attempts by unauthorized users are incorrectly accepted as valid. The FRR is just the opposite. It measures the rate at which authorized users are denied access.
The relationship between FRR (Type I) and FAR (Type II) is depicted in the graphic below . As one rate increases, the other decreases. The Cross-over Error Rate (CER) is sometimes considered a good indicator of the overall accuracy of a biometric system. This
is the point at which the FRR and the FAR have the same value. Solutions with a lower CER are typically more accurate.
See graphic below from Biometria showing this relationship. The Cross-over Error Rate (CER) is also called the Equal Error Rate (EER), the two are synonymous.



C:\Users\MCS\Desktop\1.jpg Cross Over Error Rate
The other answers are incorrect:
Type I error is also called as False Rejection Rate where a valid user is rejected by the system.
Type III error : there is no such error type in biometric system.
Crossover error rate stated in percentage , represents the point at which false rejection equals the false acceptance rate.
Reference(s) used for this question: http://www.biometria.sk/en/principles-of-biometrics.html
and
Shon Harris, CISSP All In One (AIO), 6th Edition , Chapter 3, Access Control, Page 188- 189

and
Tech Republic, Reduce Multi_Factor Authentication Cost

NEW QUESTION 109
- (Topic 1)
Which of the following is true of two-factor authentication?

A. It uses the RSA public-key signature based on integers with large prime factors.
B. It requires two measurements of hand geometry.
C. It does not use single sign-on technology.
D. It relies on two independent proofs of identity.

Answer: D

Explanation:
The Answer It relies on two independent proofs of identity. Two-factor authentication refers to using two independent proofs of identity, such as something the user has (e.g. a token card) and something the user knows (a password). Two-factor authentication may be used with single sign-on.
The following answers are incorrect: It requires two measurements of hand geometry. Measuring hand geometry twice does not yield two independent proofs.
It uses the RSA public-key signature based on integers with large prime factors. RSA encryption uses integers with exactly two prime factors, but the term "two-factor authentication" is not used in that context.
It does not use single sign-on technology. This is a detractor. The following reference(s) were/was used to create this question:
Shon Harris AIO v.3 p.129
ISC2 OIG, 2007 p. 126

NEW QUESTION 112
- (Topic 1)
What is the main focus of the Bell-LaPadula security model?

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

Answer: C

Explanation:
The Bell-LaPadula model is a formal model dealing with confidentiality.
The Bell–LaPadula Model (abbreviated BLP) is a state machine model used for enforcing access control in government and military applications. It was developed by David Elliott Bell and Leonard J. LaPadula, subsequent to strong guidance from Roger R. Schell to formalize the U.S. Department of Defense (DoD) multilevel security (MLS) policy. The model is a formal state transition model of computer security policy that describes a set of access control rules which use security labels on objects and clearances for subjects. Security labels range from the most sensitive (e.g."Top Secret"), down to the least sensitive (e.g., "Unclassified" or "Public").
The Bell–LaPadula model focuses on data confidentiality and controlled access to classified information, in contrast to the Biba Integrity Model which describes rules for the protection of data integrity. In this formal model, the entities in an information system are divided into subjects and objects.
The notion of a "secure state" is defined, and it is proven that each state transition preserves security by moving from secure state to secure state, thereby inductively proving that the system satisfies the security objectives of the model. The Bell–LaPadula model is built on the concept of a state machine with a set of allowable states in a computer network system. The transition from one state to another state is defined by transition functions.
A system state is defined to be "secure" if the only permitted access modes of subjects to objects are in accordance with a security policy. To determine whether a specific access mode is allowed, the clearance of a subject is compared to the classification of the object (more precisely, to the combination of classification and set of compartments, making up the security level) to determine if the subject is authorized for the specific access mode.
The clearance/classification scheme is expressed in terms of a lattice. The model defines two mandatory access control (MAC) rules and one discretionary access control (DAC) rule with three security properties:
The Simple Security Property - a subject at a given security level may not read an object at
a higher security level (no read-up).
The -property (read "star"-property) - a subject at a given security level must not write to any object at a lower security level (no write-down). The -property is also known as the Confinement property.
The Discretionary Security Property - use of an access matrix to specify the discretionary access control.
The following are incorrect answers:
Accountability is incorrect. Accountability requires that actions be traceable to the user that performed them and is not addressed by the Bell-LaPadula model.
Integrity is incorrect. Integrity is addressed in the Biba model rather than Bell-Lapadula. Availability is incorrect. Availability is concerned with assuring that data/services are available to authorized users as specified in service level objectives and is not addressed by the Bell-Lapadula model.
References: CBK, pp. 325-326
AIO3, pp. 279 - 284
AIOv4 Security Architecture and Design (pages 333 - 336) AIOv5 Security Architecture and Design (pages 336 - 338)
Wikipedia at https://en.wikipedia.org/wiki/Bell-La_Padula_model

NEW QUESTION 117
- (Topic 1)
Which of the following protection devices is used for spot protection within a few inches of the object, rather than for overall room security monitoring?

A. Wave pattern motion detectors
B. Capacitance detectors
C. Field-powered devices
D. Audio detectors

Answer: B

Explanation:
Capacitance detectors monitor an electrical field surrounding the object being monitored. They are used for spot protection within a few inches of the object, rather than for overall room security monitoring used by wave detectors. Penetration of this field changes the electrical capacitance of the field enough to generate and

alarm. Wave pattern motion detectors generate a frequency wave pattern and send an alarm if the pattern is disturbed as it is reflected back to its receiver. Field-powered devices are a type of personnel access control devices. Audio detectors simply monitor a room for any abnormal sound wave generation and trigger an alarm.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 10: Physical security (page 344).

NEW QUESTION 121
- (Topic 1)
What mechanism automatically causes an alarm originating in a data center to be transmitted over the local municipal fire or police alarm circuits for relaying to both the local police/fire station and the appropriate headquarters?

A. Central station alarm
B. Proprietary alarm
C. A remote station alarm
D. An auxiliary station alarm

Answer: D

Explanation:
Auxiliary station alarms automatically cause an alarm originating in a data center to be transmitted over the local municipal fire or police alarm circuits for relaying to both the local police/fire station and the appropriate headquarters. They are usually Municipal Fire Alarm Boxes are installed at your business or building, they are wired directly into the fire station.
Central station alarms are operated by private security organizations. It is very similar to a proprietary alarm system (see below). However, the biggest difference is the monitoring and receiving of alarm is done off site at a central location manned by non staff members. It is a third party.
Proprietary alarms are similar to central stations alarms except that monitoring is performed directly on the protected property. This type of alarm is usually use to protect large industrials or commercial buildings. Each of the buildings in the same vincinity has their own alarm system, they are all wired together at a central location within one of the building acting as a common receiving point. This point is usually far away from the other building so it is not under the same danger. It is usually man 24 hours a day by a trained team who knows how to react under different conditions.
A remote station alarm is a direct connection between the signal-initiating device at the protected property and the signal-receiving device located at a remote station, such as the fire station or usually a monitoring service. This is the most popular type of implementation and the owner of the premise must pay a monthly monitoring fee. This is what most people use in their home where they get a company like ADT to receive the alarms on their behalf.
A remote system differs from an auxiliary system in that it does not use the municipal fire of police alarm circuits.
Reference(s) used for this question:
ANDRESS, Mandy, Exam Cram CISSP, Coriolis, 2001, Chapter 11: Physical Security (page 211).
and
Great presentation J.T.A. Stone on SlideShare

NEW QUESTION 124
- (Topic 1)
Which of the following biometric devices offers the LOWEST CER?

A. Keystroke dynamics
B. Voice verification
C. Iris scan
D. Fingerprint

Answer: C

Explanation:
From most effective (lowest CER) to least effective (highest CER) are: Iris scan, fingerprint, voice verification, keystroke dynamics.
Reference : Shon Harris Aio v3 , Chapter-4 : Access Control , Page : 131
Also see: http://www.sans.org/reading_room/whitepapers/authentication/biometric-selection-body-parts-online_139

NEW QUESTION 126
- (Topic 1)
A confidential number used as an authentication factor to verify a user's identity is called a:

A. PIN
B. User ID
C. Password
D. Challenge

Answer: A

Explanation:
PIN Stands for Personal Identification Number, as the name states it is a combination of numbers.
The following answers are incorrect:
User ID This is incorrect because a Userid is not required to be a number and a Userid is only used to establish identity not verify it.
Password. This is incorrect because a password is not required to be a number, it could be any combination of characters.
Challenge. This is incorrect because a challenge is not defined as a number, it could be anything.

NEW QUESTION 127
- (Topic 1)
The throughput rate is the rate at which individuals, once enrolled, can be processed and identified or authenticated by a biometric system. Acceptable throughput rates are in the range of:

A. 100 subjects per minute.
B. 25 subjects per minute.
C. 10 subjects per minute.

D. 50 subjects per minute.

Answer: C

Explanation:
The throughput rate is the rate at which individuals, once enrolled, can be processed and identified or authenticated by a biometric system.
Acceptable throughput rates are in the range of 10 subjects per minute.
Things that may impact the throughput rate for some types of biometric systems may include:
A concern with retina scanning systems may be the exchange of body fluids on the eyepiece.
Another concern would be the retinal pattern that could reveal changes in a person's health, such as diabetes or high blood pressure.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 38.

NEW QUESTION 130
- (Topic 1)
Examples of types of physical access controls include all EXCEPT which of the following?

A. badges
B. locks
C. guards
D. passwords

Answer: D

Explanation:
Passwords are considered a Preventive/Technical (logical) control. The following answers are incorrect:
badges Badges are a physical control used to identify an individual. A badge can include a smart device which can be used for authentication and thus a Technical control, but the actual badge itself is primarily a physical control.
locks Locks are a Preventative Physical control and has no Technical association. guards Guards are a Preventative Physical control and has no Technical association.
The following reference(s) were/was used to create this question:
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 2: Access control systems (page 35).

NEW QUESTION 134
- (Topic 1)
Which of the following access control models introduces user security clearance and data classification?

A. Role-based access control
B. Discretionary access control
C. Non-discretionary access control
D. Mandatory access control

Answer: D

Explanation:
The mandatory access control model is based on a security label system. Users are given a security clearance and data is classified. The classification is stored in the security labels of the resources. Classification labels specify the level of trust a user must have to access a certain file.
Source: HARRIS, Shon, All-In-One CISSP Certification Exam Guide, McGraw- Hill/Osborne, 2002, Chapter 4: Access Control (Page 154).

NEW QUESTION 136
- (Topic 1)
What Orange Book security rating is reserved for systems that have been evaluated but fail to meet the criteria and requirements of the higher divisions?

A. A
B. D
C. E
D. F

Answer: B

Explanation:
D or "minimal protection" is reserved for systems that were evaluated under the TCSEC but did not meet the requirements for a higher trust level.
A is incorrect. A or "Verified Protectection" is the highest trust level under the TCSEC. E is incorrect. The trust levels are A - D so "E" is not a valid trust level.
F is incorrect. The trust levels are A - D so "F" is not a valid trust level.
CBK, pp. 329 - 330
AIO3, pp. 302 - 306

NEW QUESTION 139
- (Topic 1)
What is Kerberos?

A. A three-headed dog from the egyptian mythology.
B. A trusted third-party authentication protocol.
C. A security model.
D. A remote authentication dial in user server.

Answer: B

Explanation:

Is correct because that is exactly what Kerberos is. The following answers are incorrect:
A three-headed dog from Egyptian mythology. Is incorrect because we are dealing with Information Security and not the Egyptian mythology but the Greek Mythology.
A security model. Is incorrect because Kerberos is an authentication protocol and not just a security model.
A remote authentication dial in user server. Is incorrect because Kerberos is not a remote authentication dial in user server that would be called RADIUS.

NEW QUESTION 140
- (Topic 1)
Controls like guards and general steps to maintain building security, securing of server rooms or laptops, the protection of cables, and usage of magnetic switches on doors and windows are some of the examples of:

A. Administrative controls
B. Logical controls
C. Technical controls
D. Physical controls

Answer: D

Explanation:
Controls like guards and general steps to maintain building security, securing of server rooms or laptops, the protection of cables, and usage of magnetic switches on doors and windows are all examples of Physical Security.
Reference(s) used for this question:
KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 33.

NEW QUESTION 144
- (Topic 1)
Which of the following Kerberos components holds all users' and services' cryptographic keys?

A. The Key Distribution Service
B. The Authentication Service
C. The Key Distribution Center
D. The Key Granting Service

Answer: C

Explanation:
The Key Distribution Center (KDC) holds all users' and services' cryptographic keys. It provides authentication services, as well as key distribution functionality. The Authentication Service is the part of the KDC that authenticates a principal. The Key Distribution Service and Key Granting Service are distracters and are not defined Kerberos components.
Source: WALLHOFF, John, CISSP Summary 2002, April 2002, CBK#1 Access Control System & Methodology (page 3)

NEW QUESTION 148
- (Topic 1)
Which of the following statements pertaining to using Kerberos without any extension is false?

A. A client can be impersonated by password-guessing.
B. Kerberos is mostly a third-party authentication protocol.
C. Kerberos uses public key cryptography.
D. Kerberos provides robust authentication.

Answer: C

Explanation:
Kerberos is a trusted, credential-based, third-party authentication protocol that uses symmetric (secret) key cryptography to provide robust authentication to clients accessing services on a network.
Because a client's password is used in the initiation of the Kerberos request for the service protocol, password guessing can be used to impersonate a client.
Here is a nice overview of HOW Kerberos is implement as described in RFC 4556:
* 1. Introduction
The Kerberos V5 protocol [RFC4120] involves use of a trusted third party known as the Key Distribution Center (KDC) to negotiate shared session keys between clients and services and provide mutual authentication between them.
The corner-stones of Kerberos V5 are the Ticket and the Authenticator. A Ticket encapsulates a symmetric key (the ticket session key) in an envelope (a public message) intended for a specific service. The contents of the Ticket are encrypted with a symmetric key shared between the service principal and the issuing KDC. The encrypted part of the Ticket contains the client principal name, among other items. An Authenticator is a record that can be shown to have been recently generated using the ticket session key in the associated Ticket. The ticket session key is known by the client who requested the ticket. The contents of the Authenticator are encrypted with the associated ticket session key. The encrypted part of an Authenticator contains a timestamp and the client principal name, among other items.
As shown in Figure 1, below, the Kerberos V5 protocol consists of the following message exchanges between the client and the KDC, and the client and the application service:
The Authentication Service (AS) Exchange
The client obtains an "initial" ticket from the Kerberos authentication server (AS), typically a Ticket Granting Ticket
(TGT). The AS-REQ message and the AS-REP message are the request and the reply message, respectively, between the client and the
AS.
The Ticket Granting Service (TGS) Exchange
The client subsequently uses the TGT to authenticate and request a service ticket for a particular service, from the Kerberos
ticket-granting server (TGS). The TGS-REQ message and the TGS-REP message are the request and the reply message respectively between the client and the TGS.
The Client/Server Authentication Protocol (AP) Exchange
The client then makes a request with an AP-REQ message, consisting of a service ticket and an authenticator that certifies the
client's possession of the ticket session key. The server may optionally reply with an AP-REP message. AP exchanges typically negotiate session-specific symmetric keys.

Usually, the AS and TGS are integrated in a single device also known as the KDC.

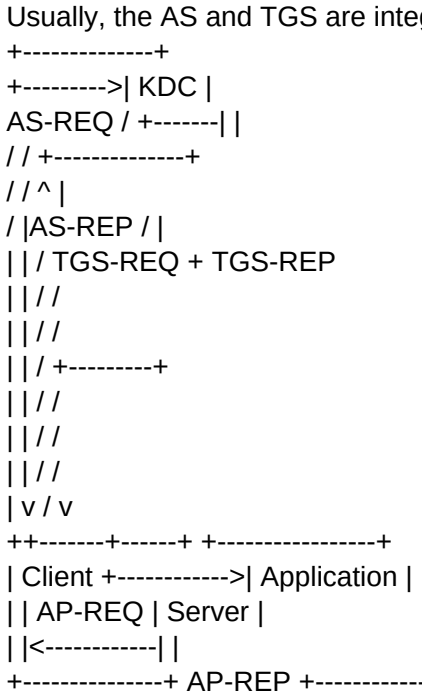


Figure 1: The Message Exchanges in the Kerberos V5 Protocol

In the AS exchange, the KDC reply contains the ticket session key, among other items, that is encrypted using a key (the AS reply key) shared between the client and the KDC. The AS reply key is typically derived from the client's password for human users. Therefore, for human users, the attack resistance strength of the Kerberos protocol is no stronger than the strength of their passwords.

Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 2: Access control systems (page 40).

And

HARRIS, Shon, All-In-One CISSP Certification Exam Guide, McGraw-Hill/Osborne, 2002, chapter 4: Access Control (pages 147-151).

and http://www.ietf.org/rfc/rfc4556.txt

NEW QUESTION 152

- (Topic 1)

What kind of certificate is used to validate a user identity?

A. Public key certificate
B. Attribute certificate
C. Root certificate
D. Code signing certificate

Answer: A

Explanation:

In cryptography, a public key certificate (or identity certificate) is an electronic document which incorporates a digital signature to bind together a public key with an identity — information such as the name of a person or an organization, their address, and so forth. The certificate can be used to verify that a public key belongs to an individual.

In a typical public key infrastructure (PKI) scheme, the signature will be of a certificate authority (CA). In a web of trust scheme, the signature is of either the user (a self-signed certificate) or other users ("endorsements"). In either case, the signatures on a certificate are attestations by the certificate signer that the identity information and the public key belong together.

In computer security, an authorization certificate (also known as an attribute certificate) is a digital document that describes a written permission from the issuer to use a service or a resource that the issuer controls or has access to use. The permission can be delegated.

Some people constantly confuse PKCs and ACs. An analogy may make the distinction clear. A PKC can be considered to be like a passport: it identifies the holder, tends to last for a long time, and should not be trivial to obtain. An AC is more like an entry visa: it is typically issued by a different authority and does not last for as long a time. As acquiring an entry visa typically requires presenting a passport, getting a visa can be a simpler process.

A real life example of this can be found in the mobile software deployments by large service providers and are typically applied to platforms such as Microsoft Smartphone (and related), Symbian OS, J2ME, and others.

In each of these systems a mobile communications service provider may customize the mobile terminal client distribution (ie. the mobile phone operating system or application environment) to include one or more root certificates each associated with a set of capabilities or permissions such as "update firmware", "access address book", "use radio interface", and the most basic one, "install and execute". When a developer wishes to enable distribution and execution in one of these controlled environments they must acquire a certificate from an appropriate CA, typically a large commercial CA, and in the process they usually have their identity verified using out-of-band mechanisms such as a combination of phone call, validation of their legal entity through government and commercial databases, etc., similar to the high assurance SSL certificate vetting process, though often there are additional specific requirements imposed on would-be developers/publishers. Once the identity has been validated they are issued an identity certificate they can use to sign their software; generally the software signed by the developer or publisher's identity certificate is not distributed but rather it is submitted to processor to possibly test or profile the content before generating an authorization certificate which is unique to the particular software release. That certificate is then used with an ephemeral asymmetric key-pair to sign the software as the last step of preparation for distribution. There are many advantages to separating the identity and authorization certificates especially relating to risk mitigation of new content being accepted into the system and key management as well as recovery from errant software which can be used as attack vectors.

References:

HARRIS, Shon, All-In-One CISSP Certification Exam Guide, 2001, McGraw-Hill/Osborne, page 540.

http://en.wikipedia.org/wiki/Attribute_certificate http://en.wikipedia.org/wiki/Public_key_certificate

NEW QUESTION 156

- (Topic 1)

Access Control techniques do not include which of the following choices?

A. Relevant Access Controls
B. Discretionary Access Control
C. Mandatory Access Control
D. Lattice Based Access Control

Answer: A

Explanation:
Access Control Techniques Discretionary Access Control
Mandatory Access Control Lattice Based Access Control Rule-Based Access Control Role-Based Access Control
Source: DUPUIS, Clement, Access Control Systems and Methodology, Version 1, May 2002, CISSP Open Study Group Study Guide for Domain 1, Page 13.

NEW QUESTION 157
- (Topic 1)
The three classic ways of authenticating yourself to the computer security software are: something you know, something you have, and something:

A. you need.
B. you read.
C. you are.
D. you do.

Answer: C

Explanation:
Source: TIPTON, Hal, (ISC)2, Introduction to the CISSP Exam presentation.

NEW QUESTION 159
- (Topic 1)
Which of the following was developed to address some of the weaknesses in Kerberos and uses public key cryptography for the distribution of secret keys and provides additional access control support?

A. SESAME
B. RADIUS
C. KryptoKnight
D. TACACS+

Answer: A

Explanation:
Secure European System for Applications in a Multi-vendor Environment (SESAME) was developed to address some of the weaknesses in Kerberos and uses public key cryptography for the distribution of secret keys and provides additional access control support.
Reference:
TIPTON, Harold, Official (ISC)2 Guide to the CISSP CBK (2007), page 184. ISC OIG Second Edition, Access Controls, Page 111

NEW QUESTION 164
- (Topic 1)
Which TCSEC level is labeled Controlled Access Protection?

A. C1
B. C2
C. C3
D. B1

Answer: B

Explanation:
C2 is labeled Controlled Access Protection.
The TCSEC defines four divisions: D, C, B and A where division A has the highest security. Each division represents a significant difference in the trust an individual or organization
can place on the evaluated system. Additionally divisions C, B and A are broken into a series of hierarchical subdivisions called classes: C1, C2, B1, B2, B3 and A1.
Each division and class expands or modifies as indicated the requirements of the immediately prior division or class.
D — Minimal protection
Reserved for those systems that have been evaluated but that fail to meet the requirements for a higher division
C — Discretionary protection
C1 — Discretionary Security Protection Identification and authentication Separation of users and data
Discretionary Access Control (DAC) capable of enforcing access limitations on an individual basis
Required System Documentation and user manuals C2 — Controlled Access Protection
More finely grained DAC
Individual accountability through login procedures Audit trails
Object reuse Resource isolation
B — Mandatory protection
B1 — Labeled Security Protection
Informal statement of the security policy model Data sensitivity labels
Mandatory Access Control (MAC) over selected subjects and objects Label exportation capabilities
All discovered flaws must be removed or otherwise mitigated Design specifications and verification
B2 — Structured Protection
Security policy model clearly defined and formally documented DAC and MAC enforcement extended to all subjects and objects
Covert storage channels are analyzed for occurrence and bandwidth Carefully structured into protection-critical and non-protection-critical elements Design and implementation enable more comprehensive testing and review Authentication mechanisms are strengthened
Trusted facility management is provided with administrator and operator segregation Strict configuration management controls are imposed
B3 — Security Domains
Satisfies reference monitor requirements
Structured to exclude code not essential to security policy enforcement Significant system engineering directed toward minimizing complexity Security administrator role defined
Audit security-relevant events
Automated imminent intrusion detection, notification, and response Trusted system recovery procedures

Covert timing channels are analyzed for occurrence and bandwidth
An example of such a system is the XTS-300, a precursor to the XTS-400 A — Verified protection
A1 — Verified Design Functionally identical to B3
Formal design and verification techniques including a formal top-level specification Formal management and distribution procedures
An example of such a system is Honeywell's Secure Communications Processor SCOMP, a precursor to the XTS-400
Beyond A1
System Architecture demonstrates that the requirements of self-protection and completeness for reference monitors have been implemented in the Trusted Computing Base (TCB).
Security Testing automatically generates test-case from the formal top-level specification or formal lower-level specifications.
Formal Specification and Verification is where the TCB is verified down to the source code level, using formal verification methods where feasible.
Trusted Design Environment is where the TCB is designed in a trusted facility with only trusted (cleared) personnel.
The following are incorrect answers: C1 is Discretionary security
C3 does not exists, it is only a detractor
B1 is called Labeled Security Protection.
Reference(s) used for this question:
HARE, Chris, Security management Practices CISSP Open Study Guide, version 1.0, april 1999.
and
AIOv4 Security Architecture and Design (pages 357 - 361) AIOv5 Security Architecture and Design (pages 358 - 362)

NEW QUESTION 169
- (Topic 1)
Which security model introduces access to objects only through programs?

A. The Biba model
B. The Bell-LaPadula model
C. The Clark-Wilson model
D. The information flow model

Answer: C

Explanation:
In the Clark-Wilson model, the subject no longer has direct access to objects but instead must access them through programs (well -formed transactions).
The Clark–Wilson integrity model provides a foundation for specifying and analyzing an integrity policy for a computing system.
The model is primarily concerned with formalizing the notion of information integrity. Information integrity is maintained by preventing corruption of data items in a system due to either error or malicious intent. An integrity policy describes how the data items in the system should be kept valid from one state of the system to the next and specifies the capabilities of various principals in the system. The model defines enforcement rules and certification rules.
Clark–Wilson is more clearly applicable to business and industry processes in which the integrity of the information content is paramount at any level of classification.
Integrity goals of Clark–Wilson model:
Prevent unauthorized users from making modification (Only this one is addressed by the Biba model).
Separation of duties prevents authorized users from making improper modifications. Well formed transactions: maintain internal and external consistency i.e. it is a series of operations that are carried out to transfer the data from one consistent state to the other.
The following are incorrect answers:
The Biba model is incorrect. The Biba model is concerned with integrity and controls access to objects based on a comparison of the security level of the subject to that of the object.
The Bell-LaPdaula model is incorrect. The Bell-LaPaula model is concerned with confidentiality and controls access to objects based on a comparison of the clearence level of the subject to the classification level of the object.
The information flow model is incorrect. The information flow model uses a lattice where objects are labelled with security classes and information can flow either upward or at the
same level. It is similar in framework to the Bell-LaPadula model. References:
ISC2 Official Study Guide, Pages 325 - 327 AIO3, pp. 284 - 287
AIOv4 Security Architecture and Design (pages 338 - 342) AIOv5 Security Architecture and Design (pages 341 - 344) Wikipedia at:
https://en.wikipedia.org/wiki/Clark-Wilson_model

NEW QUESTION 170
- (Topic 1)
What is a common problem when using vibration detection devices for perimeter control?

A. They are vulnerable to non-adversarial disturbances.
B. They can be defeated by electronic means.
C. Signal amplitude is affected by weather conditions.
D. They must be buried below the frost line.

Answer: A

Explanation:
Vibration sensors are similar and are also implemented to detect forced entry. Financial institutions may choose to implement these types of sensors on exterior walls, where bank robbers may attempt to drive a vehicle through. They are also commonly used around the ceiling and flooring of vaults to detect someone trying to make an unauthorized bank withdrawal.
Such sensors are proned to false positive. If there is a large truck with heavy equipment driving by it may trigger the sensor. The same with a storm with thunder and lighting, it may trigger the alarm even thou there are no adversarial threat or disturbance.
The following are incorrect answers: All of the other choices are incorrect. Reference used for this question:
Harris, Shon (2012-10-18). CISSP All-in-One Exam Guide, 6th Edition (pp. 495-496).
McGraw-Hill . Kindle Edition.

NEW QUESTION 173
- (Topic 1)
Which of the following security controls might force an operator into collusion with personnel assigned organizationally within a different function in order to gain access to unauthorized data?

A. Limiting the local access of operations personnel
B. Job rotation of operations personnel
C. Management monitoring of audit logs
D. Enforcing regular password changes

Answer: A

Explanation:
The questions specifically said: "within a different function" which eliminate Job Rotation as a choice.
Management monitoring of audit logs is a detective control and it would not prevent collusion.
Changing passwords regularly would not prevent such attack.
This question validates if you understand the concept of separation of duties and least privilege. By having operators that have only the minimum access level they need and only what they need to do their duties within a company, the operations personnel would be force to use collusion to defeat those security mechanism.
Source: TIPTON, Hal, (ISC)2, Introduction to the CISSP Exam presentation.

NEW QUESTION 176
- (Topic 1)
Which of the following are additional access control objectives?

A. Consistency and utility
B. Reliability and utility
C. Usefulness and utility
D. Convenience and utility

Answer: B

Explanation:
Availability assures that a system's authorized users have timely and uninterrupted access to the information in the system. The additional access control objectives are reliability and utility. These and other related objectives flow from the organizational security policy. This policy is a high-level statement of management intent regarding the control of access to information and the personnel who are authorized to receive that information. Three things that must be considered for the planning and implementation of access control mechanisms are the threats to the system, the system's vulnerability to these threats, and the risk that the threat may materialize
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 32.

NEW QUESTION 178
- (Topic 1)
An attack initiated by an entity that is authorized to access system resources but uses them in a way not approved by those who granted the authorization is known as a(n):

A. active attack
B. outside attack
C. inside attack
D. passive attack

Answer: C

Explanation:
An inside attack is an attack initiated by an entity inside the security perimeter, an entity that is authorized to access system resources but uses them in a way not approved by those who granted the authorization whereas an outside attack is initiated from outside the perimeter, by an unauthorized or illegitimate user of the system. An active attack attempts to alter system resources to affect their operation and a passive attack attempts to learn or make use of the information from the system but does not affect system resources.
Source: SHIREY, Robert W., RFC2828: Internet Security Glossary, may 2000.

NEW QUESTION 181
- (Topic 1)
An alternative to using passwords for authentication in logical or technical access control is:

A. manage without passwords
B. biometrics
C. not there
D. use of them for physical access control

Answer: B

Explanation:
An alternative to using passwords for authentication in logical or technical access control is biometrics. Biometrics are based on the Type 3 authentication mechanism-something you are.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 37.

NEW QUESTION 185
- (Topic 1)
Which of the following access control models requires security clearance for subjects?

A. Identity-based access control
B. Role-based access control
C. Discretionary access control
D. Mandatory access control

Answer: D

Explanation:
With mandatory access control (MAC), the authorization of a subject's access to an object is dependant upon labels, which indicate the subject's clearance. Identity-based access control is a type of discretionary access control. A role-based access control is a type of non-discretionary access control.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 2: Access control systems (page 33).

NEW QUESTION 189
- (Topic 1)
Which of the following is the most reliable, secure means of removing data from magnetic storage media such as a magnetic tape, or a cassette?

A. Degaussing
B. Parity Bit Manipulation
C. Zeroization
D. Buffer overflow

Answer: A

Explanation:
A "Degausser (Otherwise known as a Bulk Eraser) has the main function of reducing to near zero the magnetic flux stored in the magnetized medium. Flux density is measured in Gauss or Tesla. The operation is speedier than overwriting and done in one short operation. This is achieved by subjecting the subject in bulk to a series of fields of alternating polarity and gradually decreasing strength.
The following answers are incorrect:Parity Bit Manipulation. Parity has to do with disk lerror detection, not data removal. A bit or series of bits appended to a character or block of characters to ensure that the information received is the same as the infromation that was sent.
Zeroization. Zeroization involves overwrting data to sanitize it. It is time-consuming and not foolproof. The potential of restoration of data does exist with this method.
Buffer overflow. This is a detractor. Although many Operating Systems use a disk buffer to temporarily hold data read from disk, its primary purpose has no connection to data removal. An overflow goes outside the constraints defined for the buffer and is a method used by an attacker to attempt access to a system.
The following reference(s) were/was used to create this question: Shon Harris AIO v3. pg 908
Reference: What is degaussing.

NEW QUESTION 193
- (Topic 1)
What can be defined as a table of subjects and objects indicating what actions individual subjects can take upon individual objects?

A. A capacity table
B. An access control list
C. An access control matrix
D. A capability table

Answer: C

Explanation:
The matrix lists the users, groups and roles down the left side and the resources and functions across the top. The cells of the matrix can either indicate that access is allowed or indicate the type of access. CBK pp 317 - 318.
AIO3, p. 169 describes it as a table if subjects and objects specifying the access rights a certain subject possesses pertaining to specific objects.
In either case, the matrix is a way of analyzing the access control needed by a population of subjects to a population of objects. This access control can be applied using rules, ACL's, capability tables, etc.
"A capacity table" is incorrect.
This answer is a trap for the unwary -- it sounds a little like "capability table" but is just there to distract you.
"An access control list" is incorrect.
"It [ACL] specifies a list of users [subjects] who are allowed access to each object" CBK, p. 188 Access control lists (ACL) could be used to implement the rules identified by an access control matrix but is different from the matrix itself.
"A capability table" is incorrect.
"Capability tables are used to track, manage and apply controls based on the object and rights, or capabilities of a subject. For example, a table identifies the object, specifies access rights allowed for a subject, and permits access based on the user's posession of a capability (or ticket) for the object." CBK, pp. 191-192.
To put it another way, as noted in AIO3 on p. 169, "A capabiltiy table is different from an ACL because the subject is bound to the capability table, whereas the object is bound to the ACL."
Again, a capability table could be used to implement the rules identified by an access control matrix but is different from the matrix itself.
References:
CBK pp. 191-192, 317-318
AIO3, p. 169

NEW QUESTION 198
- (Topic 1)
Which type of password provides maximum security because a new password is required for each new log-on?

A. One-time or dynamic password
B. Congnitive password
C. Static password
D. Passphrase

Answer: A

Explanation:
"one-time password" provides maximum security because a new password is required for each new log-on.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 36.

NEW QUESTION 199
- (Topic 1)

In Discretionary Access Control the subject has authority, within certain limitations,

A. but he is not permitted to specify what objects can be accessible and so we need to get an independent third party to specify what objects can be accessible.
B. to specify what objects can be accessible.
C. to specify on a aggregate basis without understanding what objects can be accessible.
D. to specify in full detail what objects can be accessible.

Answer: B

Explanation:
With Discretionary Access Control, the subject has authority, within certain limitations, to specify what objects can be accessible.
For example, access control lists can be used. This type of access control is used in local, dynamic situations where the subjects must have the discretion to specify what resources certain users are permitted to access.
When a user, within certain limitations, has the right to alter the access control to certain objects, this is termed as user-directed discretionary access control. In some instances, a hybrid approach is used, which combines the features of user-based and identity-based discretionary access control.
References:
KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 33.
and
HARRIS, Shon, All-In-One CISSP Certification Exam Guide 5th Edition, McGraw- Hill/Osborne, 2010, Chapter 4: Access Control (page 210-211).

NEW QUESTION 202
- (Topic 1)
A timely review of system access audit records would be an example of which of the basic security functions?

A. avoidance.
B. deterrence.
C. prevention.
D. detection.

Answer: D

Explanation:
By reviewing system logs you can detect events that have occured.
The following answers are incorrect:
avoidance. This is incorrect, avoidance is a distractor. By reviewing system logs you have not avoided anything.
deterrence. This is incorrect because system logs are a history of past events. You cannot deter something that has already occurred.
prevention. This is incorrect because system logs are a history of past events. You cannot prevent something that has already occurred.

NEW QUESTION 206
- (Topic 1)
Which of the following is addressed by Kerberos?

A. Confidentiality and Integrity
B. Authentication and Availability
C. Validation and Integrity
D. Auditability and Integrity

Answer: A

Explanation:
Kerberos addresses the confidentiality and integrity of information. It also addresses primarily authentication but does not directly address availability.
Reference(s) used for this question:
KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, 2001, John Wiley & Sons, Page 42.
and https://www.ietf.org/rfc/rfc4120.txt and
http://learn-networking.com/network-security/how-kerberos-authentication-works

NEW QUESTION 208
- (Topic 1)
Which of the following is NOT a form of detective administrative control?

A. Rotation of duties
B. Required vacations
C. Separation of duties
D. Security reviews and audits

Answer: C

Explanation:
Detective administrative controls warn of administrative control violations. Rotation of duties, required vacations and security reviews and audits are forms of detective administrative controls. Separation of duties is the practice of dividing the steps in a system function among different individuals, so as to keep a single individual from subverting the process, thus a preventive control rather than a detective control.
Source: DUPUIS, Cl?ment, Access Control Systems and Methodology CISSP Open Study Guide, version 1.0 (march 2002).

NEW QUESTION 210
- (Topic 2)
Which of the following is less likely to be included in the change control sub-phase of the maintenance phase of a software product?

A. Estimating the cost of the changes requested
B. Recreating and analyzing the problem

C. Determining the interface that is presented to the user
D. Establishing the priorities of requests

Answer: D

Explanation:
Change control sub-phase includes Recreating and analyzing the problem, Determining the interface that is presented to the user, and Establishing the priorities of requests.
Source: KRUTZ, Ronald L. & VINES, Russel D., The CISSP Prep Guide: Mastering the Ten Domains of Computer Security, John Wiley & Sons, 2001, Chapter 7: Applications and Systems Development (page 252).

NEW QUESTION 215
- (Topic 2)
Which of the following statements pertaining to the security kernel is incorrect?

A. The security kernel is made up of mechanisms that fall under the TCB and implements and enforces the reference monitor concept.
B. The security kernel must provide isolation for the processes carrying out the reference monitor concept and they must be tamperproof.
C. The security kernel must be small enough to be able to be tested and verified in a complete and comprehensive manner.
D. The security kernel is an access control concept, not an actual physical component.

Answer: D

Explanation:
The reference monitor, not the security kernel is an access control concept.
The security kernel is made up of software, and firmware components that fall within the TCB and implements and enforces the reference monitor concept. The security kernel mediates all access and functions between subjects and objects. The security kernel is the core of the TCB and is the most commonly used approach to building trusted computing systems.
There are three main requirements of the security kernel:
• It must provide isolation for the processes carrying out the reference monitor concept, and the processes must be tamperproof.
• It must be invoked for every access attempt and must be impossible to circumvent. Thus, the security kernel must be implemented in a complete and foolproof way.
• It must be small enough to be able to be tested and verified in a complete and comprehensive manner.
The following answers are incorrect:
The security kernel is made up of mechanisms that fall under the TCB and implements and enforces the reference monitor concept. Is incorrect because this is the definition of the security kernel.
The security kernel must provide isolation for the processes carrying out the reference monitor concept and they must be tamperproof. Is incorrect because this is one of the three requirements that make up the security kernel.
The security kernel must be small enough to be able to be tested and verified in a complete and comprehensive manner. Is incorrect because this is one of the three requirements that make up the security kernel.

NEW QUESTION 217
- (Topic 2)
Which of the following security controls might force an operator into collusion with personnel assigned organizationally within a different function in order to gain access to unauthorized data?

A. Limiting the local access of operations personnel
B. Job rotation of operations personnel
C. Management monitoring of audit logs
D. Enforcing regular password changes

Answer: A

Explanation:
The questions specifically said: "within a different function" which eliminate Job Rotation as a choice.
Management monitoring of audit logs is a detective control and it would not prevent collusion.
Changing passwords regularly would not prevent such attack.
This question validates if you understand the concept of separation of duties and least privilege. By having operators that have only the minimum access level they need and only what they need to do their duties within a company, the operations personnel would be force to use collusion to defeat those security mechanism.
Source: TIPTON, Hal, (ISC)2, Introduction to the CISSP Exam presentation.

NEW QUESTION 221
- (Topic 2)
Which of the following are NOT a countermeasure to traffic analysis?

A. Padding messages.
B. Eavesdropping.
C. Sending noise.
D. Faraday Cage

Answer: B

Explanation:
Eavesdropping is not a countermeasure, it is a type of attack where you are collecting traffic and attempting to see what is being send between entities communicating with each other.
The following answers are incorrect:
Padding Messages. Is incorrect because it is considered a countermeasure you make messages uniform size, padding can be used to counter this kind of attack, in which decoy traffic is sent out over the network to disguise patterns and make it more difficult to uncover patterns.
Sending Noise. Is incorrect because it is considered a countermeasure, tansmitting non- informational data elements to disguise real data.
Faraday Cage Is incorrect because it is a tool used to prevent emanation of electromagnetic waves. It is a very effective tool to prevent traffic analysis.

NEW QUESTION 222
- (Topic 2)
Which of the following would be best suited to oversee the development of an information security policy?

A. System Administrators
B. End User
C. Security Officers
D. Security administrators

Answer: C

Explanation:
The security officer would be the best person to oversea the development of such policies.
Security officers and their teams have typically been charged with the responsibility of creating the security policies. The policies must be written and communicated appropriately to ensure that they can be understood by the end users. Policies that are poorly written, or written at too high of an education level (common industry practice is to focus the content for general users at the sixth- to eighth-grade reading level), will not be understood.
Implementing security policies and the items that support them shows due care by the company and its management staff. Informing employees of what is expected of them and the consequences of noncompliance can come down to a liability issue.
While security officers may be responsible for the development of the security policies, the effort should be collaborative to ensure that the business issues are addressed.
The security officers will get better corporate support by including other areas in policy development. This helps build buy-in by these areas as they take on a greater ownership of the final product. Consider including areas such as HR, legal, compliance, various IT areas and specific business area representatives who represent critical business units.
When policies are developed solely within the IT department and then distributed without business input, they are likely to miss important business considerations. Once policy
documents have been created, the basis for ensuring compliance is established. Depending on the organization, additional documentation may be necessary to support policy. This support may come in the form of additional controls described in standards, baselines, or procedures to help personnel with compliance. An important step after documentation is to make the most current version of the documents readily accessible to those who are expected to follow them. Many organizations place the documents on their intranets or in shared file folders to facilitate their accessibility. Such placement of these documents plus checklists, forms, and sample documents can make awareness more effective.
For your exam you should know the information below:
End User - The end user is responsible for protecting information assets on a daily basis through adherence to the security policies that have been communicated.
Executive Management/Senior Management - Executive management maintains the overall responsibility for protection of the information assets. The business operations are dependent upon information being available, accurate, and protected from individuals without a need to know.
Security Officer - The security officer directs, coordinates, plans, and organizes information security activities throughout the organization. The security officer works with many different individuals, such as executive management, management of the business units, technical staff, business partners, auditors, and third parties such as vendors. The security officer and his or her team are responsible for the design, implementation, management, and review of the organization's security policies, standards, procedures, baselines, and guidelines.
Information Systems Security Professional- Drafting of security policies, standards and supporting guidelines, procedures, and baselines is coordinated through these individuals. Guidance is provided for technical security issues, and emerging threats are considered for the adoption of new policies. Activities such as interpretation of government regulations and industry trends and analysis of vendor solutions to include in the security architecture that advances the security of the organization are performed in this role.
Data/Information/Business/System Owners - A business executive or manager is typically responsible for an information asset. These are the individuals that assign the appropriate classification to information assets. They ensure that the business information is protected with appropriate controls. Periodically, the information asset owners need to review the classification and access rights associated with information assets. The owners, or their
delegates, may be required to approve access to the information. Owners also need to determine the criticality, sensitivity, retention, backups, and safeguards for the information. Owners or their delegates are responsible for understanding the risks that exist with regards to the information that they control.
Data/Information Custodian/Steward - A data custodian is an individual or function that takes care of the information on behalf of the owner. These individuals ensure that the information is available to the end users and is backed up to enable recovery in the event of data loss or corruption. Information may be stored in files, databases, or systems whose technical infrastructure must be managed, by systems administrators. This group administers access rights to the information assets.
Information Systems Auditor- IT auditors determine whether users, owners, custodians, systems, and networks are in compliance with the security policies, procedures, standards, baselines, designs, architectures, management direction, and other requirements placed on systems. The auditors provide independent assurance to the management on the appropriateness of the security controls. The auditor examines the information systems and determines whether they are designed, configured, implemented, operated, and managed in a way ensuring that the organizational objectives are being achieved. The auditors provide top company management with an independent view of the controls and their effectiveness.
Business Continuity Planner - Business continuity planners develop contingency plans to prepare for any occurrence that could have the ability to impact the company's objectives negatively. Threats may include earthquakes, tornadoes, hurricanes, blackouts, changes in the economic/political climate, terrorist activities, fire, or other major actions potentially causing significant harm. The business continuity planner ensures that business processes can continue through the disaster and coordinates those activities with the business areas and information technology personnel responsible for disaster recovery.
Information Systems/ Technology Professionals- These personnel are responsible for designing security controls into information systems, testing the controls, and implementing the systems in production environments through agreed upon operating policies and procedures. The information systems professionals work with the business owners and the security professionals to ensure that the designed solution provides security controls commensurate with the acceptable criticality, sensitivity, and availability requirements of the application.
Security Administrator - A security administrator manages the user access request process and ensures that privileges are provided to those individuals who have been authorized for
access by application/system/data owners. This individual has elevated privileges and creates and deletes accounts and access permissions. The security administrator also terminates access privileges when individuals leave their jobs or transfer between company divisions. The security administrator maintains records of access request approvals and produces reports of access rights for the auditor during testing in an access controls audit to demonstrate compliance with the policies.
Network/Systems Administrator - A systems administrator (sysadmin/netadmin) configures network and server hardware and the operating systems to ensure that the information can be available and accessible. The administrator maintains the computing infrastructure using tools and utilities such as patch management and software distribution mechanisms to install updates and test patches on organization computers. The administrator tests and implements system upgrades to ensure the continued reliability of the servers and network devices. The administrator provides vulnerability management through either commercial off the shelf (COTS) and/or non-COTS solutions to test the computing environment and mitigate vulnerabilities appropriately.
Physical Security - The individuals assigned to the physical security role establish relationships with external law enforcement, such as the local police agencies, state police, or the Federal Bureau of Investigation (FBI) to assist in investigations. Physical security personnel manage the installation, maintenance, and ongoing operation of the closed circuit television (CCTV) surveillance systems, burglar alarm systems, and card reader access control systems. Guards are placed where necessary as a deterrent to unauthorized access and to provide safety for the company employees. Physical security personnel interface with systems security, human resources, facilities, and legal and business areas to ensure that the practices are integrated.
Security Analyst - The security analyst role works at a higher, more strategic level than the previously described roles and helps develop policies, standards, and guidelines, as well as set various baselines. Whereas the previous roles are "in the weeds" and focus on pieces and parts of the security program, a security analyst helps define the security program elements and follows through to ensure the elements are being carried out and practiced properly. This person works

more at a design level than at an implementation level.
Administrative Assistants/Secretaries - This role can be very important to information security; in many companies of smaller size, this may be the individual who greets visitors, signs packages in and out, recognizes individuals who desire to enter the offices, and serves as the phone screener for executives. These individuals may be subject to social engineering attacks, whereby the potential intruder attempts to solicit confidential
information that may be used for a subsequent attack. Social engineers prey on the goodwill of the helpful individual to gain entry. A properly trained assistant will minimize the risk of divulging useful company information or of providing unauthorized entry.
Help Desk Administrator - As the name implies, the help desk is there to field questions from users that report system problems. Problems may include poor response time, potential virus infections, unauthorized access, inability to access system resources, or questions on the use of a program. The help desk is also often where the first indications of security issues and incidents will be seen. A help desk individual would contact the computer security incident response team (CIRT) when a situation meets the criteria developed by the team. The help desk resets passwords, resynchronizes/reinitializes tokens and smart cards, and resolves other problems with access control.
Supervisor - The supervisor role, also called user manager, is ultimately responsible for all user activity and any assets created and owned by these users. For example, suppose Kathy is the supervisor of ten employees. Her responsibilities would include ensuring that these employees understand their responsibilities with respect to security; making sure the employees' account information is up-to-date; and informing the security administrator when an employee is fired, suspended, or transferred. Any change that pertains to an employee's role within the company usually affects what access rights they should and should not have, so the user manager must inform the security administrator of these changes immediately.
Change Control Analyst Since the only thing that is constant is change, someone must make sure changes happen securely. The change control analyst is responsible for approving or rejecting requests to make changes to the network, systems, or software. This role must make certain that the change will not introduce any vulnerabilities, that it has been properly tested, and that it is properly rolled out. The change control analyst needs to understand how various changes can affect security, interoperability, performance, and productivity. Or, a company can choose to just roll out the change and see what happens.
The following answers are incorrect:
Systems Administrator - A systems administrator (sysadmin/netadmin) configures network and server hardware and the operating systems to ensure that the information can be available and accessible. The administrator maintains the computing infrastructure using tools and utilities such as patch management and software distribution mechanisms to install updates and test patches on organization computers. The administrator tests and implements system upgrades to ensure the continued reliability of the servers and network
devices. The administrator provides vulnerability management through either commercial off the shelf (COTS) and/or non-COTS solutions to test the computing environment and mitigate vulnerabilities appropriately.
End User - The end user is responsible for protecting information assets on a daily basis through adherence to the security policies that have been communicated.
Security Administrator - A security administrator manages the user access request process and ensures that privileges are provided to those individuals who have been authorized for access by application/system/data owners. This individual has elevated privileges and creates and deletes accounts and access permissions. The security administrator also terminates access privileges when individuals leave their jobs or transfer between company divisions. The security administrator maintains records of access request approvals and produces reports of access rights for the auditor during testing in an access controls audit to demonstrate compliance with the policies.
Following reference(s) were/was used to create this question: CISA review manual 2014 Page number 109
Harris, Shon (2012-10-18). CISSP All-in-One Exam Guide, 6th Edition (p. 108). McGraw- Hill. Kindle Edition.

NEW QUESTION 226
- (Topic 2)
If an operating system permits shared resources such as memory to be used sequentially by multiple users/application or subjects without a refresh of the objects/memory area, what security problem is MOST likely to exist?

A. Disclosure of residual data.
B. Unauthorized obtaining of a privileged execution state.
C. Data leakage through covert channels.
D. Denial of service through a deadly embrace.

Answer: A

Explanation:
Allowing objects to be used sequentially by multiple users without a refresh of the objects can lead to disclosure of residual data. It is important that steps be taken to eliminate the chance for the disclosure of residual data.
Object reuse refers to the allocation or reallocation of system resources to a user or, more appropriately, to an application or process. Applications and services on a computer system may create or use objects in memory and in storage to perform programmatic functions. In some cases, it is necessary to share these resources between various system applications. However, some objects may be employed by an application to perform privileged tasks on behalf of an authorized user or upstream application. If object usage is not controlled or the data in those objects is not erased after use, they may become available to unauthorized users or processes.
Disclosure of residual data and Unauthorized obtaining of a privileged execution state are both a problem with shared memory and resources. Not clearing the heap/stack can result in residual data and may also allow the user to step on somebody's session if the security token/identify was maintained in that space. This is generally more malicious and intentional than accidental though. The MOST common issue would be Disclosure of residual data.
The following answers are incorrect:
Unauthorized obtaining of a privileged execution state. Is incorrect because this is not a
problem with Object Reuse.
Data leakage through covert channels. Is incorrect because it is not the best answer. A covert channel is a communication path. Data leakage would not be a problem created by Object Reuse. In computer security, a covert channel is a type of computer security attack that creates a capability to transfer information objects between processes that are not supposed to be allowed to communicate by the computer security policy. The term, originated in 1973 by Lampson is defined as "(channels) not intended for information transfer at all, such as the service program's effect on system load." to distinguish it from Legitimate channels that are subjected to access controls by COMPUSEC.
Denial of service through a deadly embrace. Is incorrect because it is only a detractor. References:
Hernandez CISSP, Steven (2012-12-21). Official (ISC)2 Guide to the CISSP CBK, Third Edition ((ISC)2 Press) (Kindle Locations 4174-4179). Auerbach Publications. Kindle Edition.
and https://www.fas.org/irp/nsa/rainbow/tg018.htm and http://en.wikipedia.org/wiki/Covert_channel

NEW QUESTION 227
- (Topic 2)
Step-by-step instructions used to satisfy control requirements is called a:

A. policy
B. standard
C. guideline
D. procedure

Answer: D

Explanation:
Source: TIPTON, Hal, (ISC)2, Introduction to the CISSP Exam presentation.

NEW QUESTION 228
- (Topic 2)
Which of the following is responsible for MOST of the security issues?

A. Outside espionage
B. Hackers
C. Personnel
D. Equipment failure

Answer: C

Explanation:
Personnel cause more security issues than hacker attacks, outside espionage, or equipment failure.
The following answers are incorrect because:
Outside espionage is incorrect as it is not the best answer. Hackers is also incorrect as it is not the best answer. Equipment failure is also incorrect as it is not the best answer.
Reference : Shon Harris AIO v3 , Chapter-3: Security Management Practices , Page : 56

NEW QUESTION 231
- (Topic 2)
Which of the following is an advantage of prototyping?

A. Prototype systems can provide significant time and cost savings.
B. Change control is often less complicated with prototype systems.
C. It ensures that functions or extras are not added to the intended system.
D. Strong internal controls are easier to implement.

Answer: A

Explanation:
Prototype systems can provide significant time and cost savings, however they also have several disadvantages. They often have poor internal controls, change control becomes much more complicated and it often leads to functions or extras being added to the system that were not originally intended.
Source: Information Systems Audit and Control Association, Certified Information Systems Auditor 2002 review manual, chapter 6: Business Application System Development, Acquisition, Implementation and Maintenance (page 306).

NEW QUESTION 232
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