

# ISC2

## Exam Questions CCSP

Certified Cloud Security Professional



#### NEW QUESTION 1

- (Exam Topic 4)

All of the following are techniques to enhance the portability of cloud data, in order to minimize the potential of vendor lock-in except:

- A. Ensure there are no physical limitations to moving
- B. Use DRM and DLP solutions widely throughout the cloud operation
- C. Ensure favorable contract terms to support portability
- D. Avoid proprietary data formats

**Answer: B**

**Explanation:**

DRM and DLP are used for increased authentication/access control and egress monitoring, respectively, and would actually decrease portability instead of enhancing it.

#### NEW QUESTION 2

- (Exam Topic 4)

APIs are defined as which of the following?

- A. A set of protocols, and tools for building software applications to access a web-based software application or tool
- B. A set of routines, standards, protocols, and tools for building software applications to access a web-based software application or tool
- C. A set of standards for building software applications to access a web-based software application or tool
- D. A set of routines and tools for building software applications to access web-based software applications

**Answer: B**

**Explanation:**

All the answers are true, but B is the most complete.

#### NEW QUESTION 3

- (Exam Topic 4)

Which of the following are distinguishing characteristics of a managed service provider?

- A. Be able to remotely monitor and manage objects for the customer and proactively maintain these objects under management.
- B. Have some form of a help desk but no NOC.
- C. Be able to remotely monitor and manage objects for the customer and reactively maintain these objects under management.
- D. Have some form of a NOC but no help desk.

**Answer: A**

**Explanation:**

According to the MSP Alliance, typically MSPs have the following distinguishing characteristics:

- Have some form of NOC service
- Have some form of help desk service
- Can remotely monitor and manage all or a majority of the objects for the customer
- Can proactively maintain the objects under management for the customer
- Can deliver these solutions with some form of predictable billing model, where the customer knows with great accuracy what her regular IT management expense will be

#### NEW QUESTION 4

- (Exam Topic 4)

Which of the following is the best example of a key component of regulated PII?

- A. Audit rights of subcontractors
- B. Items that should be implemented
- C. PCI DSS
- D. Mandatory breach reporting

**Answer: D**

**Explanation:**

Mandatory breach reporting is the best example of regulated PII components. The rest are generally considered components of contractual PII.

#### NEW QUESTION 5

- (Exam Topic 4)

In which cloud service model is the customer required to maintain the OS?

- A. IaaS
- B. CaaS
- C. PaaS
- D. SaaS

**Answer: A**

**Explanation:**

In IaaS, the service is bare metal, and the customer has to install the OS and the software; the customer then is responsible for maintaining that OS. In the other

models, the provider installs and maintains the OS.

**NEW QUESTION 6**

- (Exam Topic 4)

Which cloud service category most commonly uses client-side key management systems?

- A. Software as a Service
- B. Infrastructure as a Service
- C. Platform as a Service
- D. Desktop as a Service

**Answer:** A

**Explanation:**

SaaS most commonly uses client-side key management. With this type of implementation, the software for doing key management is supplied by the cloud provider, but is hosted and run by the cloud customer. This allows for full integration with the SaaS implementation, but also provides full control to the cloud customer. Although the cloud provider may offer software for performing key management to the cloud customers, with the Infrastructure, Platform, and Desktop as a Service categories, the customers would largely be responsible for their own options and implementations and would not be bound by the offerings from the cloud provider.

**NEW QUESTION 7**

- (Exam Topic 4)

What is the intellectual property protection for a confidential recipe for muffins?

- A. Patent
- B. Trademark
- C. Trade secret
- D. Copyright

**Answer:** C

**Explanation:**

Confidential recipes unique to the organization are trade secrets. The other answers listed are answers to other questions.

**NEW QUESTION 8**

- (Exam Topic 4)

When data discovery is undertaken, three main approaches or strategies are commonly used to determine what the type of data, its format, and composition are for the purposes of classification.

Which of the following is NOT one of the three main approaches to data discovery?

- A. Content analysis
- B. Hashing
- C. Labels
- D. Metadata

**Answer:** B

**Explanation:**

Hashing involves taking a block of data and, through the use of a one-way operation, producing a fixed-size value that can be used for comparison with other data. It is used primarily for protecting data and allowing for rapid comparison when matching data values such as passwords. Labels involve looking for header information or other categorizations of data to determine its type and possible classifications. Metadata involves looking at information attributes of the data, such as creator, application, type, and so on, in determining classification. Content analysis involves examining the actual data itself for its composition and classification level.

**NEW QUESTION 9**

- (Exam Topic 4)

Which of the following concepts is NOT one of the core components to an encryption system architecture?

- A. Software
- B. Network
- C. Keys
- D. Data

**Answer:** B

**Explanation:**

The network utilized is not one of the key components of an encryption system architecture. In fact, a network is not even required for encryption systems or the processing and protection of data. The data, software used for the encryption engine itself, and the keys used to implement the encryption are all core components of an encryption system architecture.

**NEW QUESTION 10**

- (Exam Topic 4)

Which kind of SSAE audit reviews controls dealing with the organization's controls for assuring the confidentiality, integrity, and availability of data?

- A. SOC 1
- B. SOC 2
- C. SOC 3
- D. SOC 4

**Answer:** B

**Explanation:**

SOC 2 deals with the CIA triad. SOC 1 is for financial reporting. SOC 3 is only an attestation by the auditor. There is no SOC 4.

**NEW QUESTION 10**

- (Exam Topic 4)

Web application firewalls (WAFs) are designed primarily to protect applications from common attacks like:

- A. Ransomware
- B. Syn floods
- C. XSS and SQL injection
- D. Password cracking

**Answer:** C

**Explanation:**

WAFs detect how the application interacts with the environment, so they are optimal for detecting and refuting things like SQL injection and XSS. Password cracking, syn floods, and ransomware usually aren't taking place in the same way as injection and XSS, and they are better addressed with controls at the router and through the use of HIDS, NIDS, and antimalware tools.

**NEW QUESTION 12**

- (Exam Topic 4)

Which of the following provides assurance, to a predetermined acceptable level of certainty, that an entity is indeed who they claim to be?

- A. Authentication
- B. Identification
- C. Proofing
- D. Authorization

**Answer:** A

**Explanation:**

Authentication goes a step further than identification by providing a means for proving an entity's identification. Authentication is most commonly done through mechanisms such as passwords. Identification involves ascertaining who the entity is, but without a means of proving it, such as a name or user ID. Authorization occurs after authentication and sets access permissions and other privileges within a system or application for the user. Proofing is not a term that is relevant to the question.

**NEW QUESTION 16**

- (Exam Topic 4)

What are the U.S. State Department controls on technology exports known as?

- A. DRM
- B. ITAR
- C. EAR
- D. EAL

**Answer:** B

**Explanation:**

ITAR is a Department of State program. Evaluation assurance levels are part of the Common Criteria standard from ISO. Digital rights management tools are used for protecting electronic processing of intellectual property.

**NEW QUESTION 21**

- (Exam Topic 4)

Tokenization requires two distinct \_\_\_\_\_.

- A. Personnel
- B. Authentication factors
- C. Encryption keys
- D. Databases

**Answer:** D

**Explanation:**

In order to implement tokenization, there will need to be two databases: the database containing the raw, original data, and the token database containing tokens that map to original data. Having two-factor authentication is nice, but certainly not required. Encryption keys are not necessary for tokenization. Two-person integrity does not have anything to do with tokenization.

**NEW QUESTION 24**

- (Exam Topic 4)

A variety of security systems can be integrated within a network--some that just monitor for threats and issue alerts, and others that take action based on signatures, behavior, and other types of rules to actively stop potential threats.

Which of the following types of technologies is best described here?

- A. IDS
- B. IPS

- C. Proxy
- D. Firewall

**Answer:** B

**Explanation:**

An intrusion prevention system (IPS) can inspect traffic and detect any suspicious traffic based on a variety of factors, but it can also actively block such traffic. Although an IDS can detect the same types of suspicious traffic as an IPS, it is only design to alert, not to block. A firewall is only concerned with IP addresses, ports, and protocols; it cannot be used for the signature-based detection of traffic. A proxy can limit or direct traffic based on more extensive factors than a network firewall can, but it's not capable of using the same signature detection rules as an IPS.

**NEW QUESTION 26**

- (Exam Topic 4)

Which of the following best describes the Organizational Normative Framework (ONF)?

- A. A set of application security, and best practices, catalogued and leveraged by the organization
- B. A container for components of an application's security, best practices catalogued and leveraged by the organization
- C. A framework of containers for some of the components of application security, best practices, catalogued and leveraged by the organization
- D. A framework of containers for all components of application security, best practices, catalogued and leveraged by the organization.

**Answer:** D

**Explanation:**

Option B is incorrect, because it refers to a specific applications security elements, meaning it is about an ANF, not the ONF. C is true, but not as complete as D, making D the better choice. C suggests that the framework contains only "some" of the components, which is why B (which describes "all" components) is better

**NEW QUESTION 28**

- (Exam Topic 4)

What is the Cloud Security Alliance Cloud Controls Matrix (CCM)?

- A. A set of software development life cycle requirements for cloud service providers
- B. An inventory of cloud services security controls that are arranged into a hierarchy of security domains
- C. An inventory of cloud service security controls that are arranged into separate security domains
- D. A set of regulatory requirements for cloud service providers

**Answer:** C

**Explanation:**

The CSA CCM is an inventory of cloud service security controls that are arranged into separate security domains, not a hierarchy.

**NEW QUESTION 33**

- (Exam Topic 4)

Which of the following is NOT a component of access control?

- A. Accounting
- B. Federation
- C. Authorization
- D. Authentication

**Answer:** B

**Explanation:**

Federation is not a component of access control. Instead, it is used to allow users possessing credentials from other authorities and systems to access services outside of their domain. This allows for access and trust without the need to create additional, local credentials. Access control encompasses not only the key concepts of authorization and authentication, but also accounting. Accounting consists of collecting and maintaining logs for both authentication and authorization for operational and regulatory requirements.

**NEW QUESTION 35**

- (Exam Topic 4)

What is the experimental technology that might lead to the possibility of processing encrypted data without having to decrypt it first?

- A. One-time pads
- B. Link encryption
- C. Homomorphic encryption
- D. AES

**Answer:** C

**Explanation:**

AES is an encryption standard. Link encryption is a method for protecting communications traffic. One-time pads are an encryption method.

**NEW QUESTION 37**

- (Exam Topic 4)

Which of the following best describes SAML?

- A. A standard used for directory synchronization
- B. A standard for developing secure application management logistics

- C. A standard for exchanging usernames and passwords across devices.
- D. A standards for exchanging authentication and authorization data between security domains.

**Answer:** D

#### NEW QUESTION 41

- (Exam Topic 4)

The WS-Security standards are built around all of the following standards except which one?

- A. SAML
- B. WDSL
- C. XML
- D. SOAP

**Answer:** A

#### Explanation:

The WS-Security specifications, as well as the WS-Federation system, are built upon XML, WDSL, and SOAP. SAML is a very similar protocol that is used as an alternative to WS.XML, WDSL, and SOAP are all integral to the WS-Security specifications.

#### NEW QUESTION 43

- (Exam Topic 4)

Database activity monitoring (DAM) can be:

- A. Host-based or network-based
- B. Server-based or client-based
- C. Used in the place of encryption
- D. Used in place of data masking

**Answer:** A

#### Explanation:

We don't use DAM in place of encryption or masking; DAM augments these options without replacing them. We don't usually think of the database interaction as client-server, so A is the best answer.

#### NEW QUESTION 45

- (Exam Topic 4)

Which data protection strategy would be useful for a situation where the ability to remove sensitive data from a set is needed, but a requirement to retain the ability to map back to the original values is also present?

- A. Masking
- B. Tokenization
- C. Encryption
- D. Anonymization

**Answer:** B

#### Explanation:

Tokenization involves the replacement of sensitive data fields with key or token values, which can ultimately be mapped back to the original, sensitive data values. Masking refers to the overall approach to covering sensitive data, and anonymization is a type of masking, where indirect identifiers are removed from a data set to prevent the mapping back of data to an individual. Encryption refers to the overall process of protecting data via key pairs and protecting confidentiality.

#### NEW QUESTION 50

- (Exam Topic 4)

Which component of ITIL involves handling anything that can impact services for either internal or public users?

- A. Incident management
- B. Deployment management
- C. Problem management
- D. Change management

**Answer:** A

#### Explanation:

Incident management is focused on limiting the impact of disruptions to an organization's services or operations, as well as returning their state to full operational status as soon as possible. Problem management is focused on identifying and mitigating known problems and deficiencies before they occur. Deployment management is a subcomponent of change management and is where the actual code or configuration change is put into place. Change management involves the processes and procedures that allow an organization to make changes to its IT systems and services in a controlled manner.

#### NEW QUESTION 53

- (Exam Topic 4)

Which of the following best describes data masking?

- A. A method for creating similar but inauthentic datasets used for software testing and user training.
- B. A method used to protect prying eyes from data such as social security numbers and credit card data.



- C. A method where the last few numbers in a dataset are not obscure
- D. These are often used for authentication.
- E. Data masking involves stripping out all digits in a string of numbers so as to obscure the original number.

**Answer:** A

**Explanation:**

All of these answers are actually correct, but A is the best answer, because it is the most general, includes the others, and is therefore the optimum choice. This is a good example of the type of question that can appear on the actual exam.

**NEW QUESTION 54**

- (Exam Topic 4)

DLP solutions can aid in deterring loss due to which of the following?

- A. Device failure
- B. Randomization
- C. Inadvertent disclosure
- D. Natural disaster

**Answer:** C

**Explanation:**

DLP solutions may protect against inadvertent disclosure. Randomization is a technique for obscuring data, not a risk to data. DLP tools will not protect against risks from natural disasters, or against impacts due to device failure.

**NEW QUESTION 59**

- (Exam Topic 4)

All the following are data analytics modes, except:

- A. Datamining
- B. Agile business intelligence
- C. Refractory iterations
- D. Real-time analytics

**Answer:** C

**Explanation:**

All the others are data analytics methods, but “refractory iterations” is a nonsense term thrown in as a red herring.

**NEW QUESTION 60**

- (Exam Topic 4)

Gap analysis is performed for what reason?

- A. To begin the benchmarking process
- B. To assure proper accounting practices are being used
- C. To provide assurances to cloud customers
- D. To ensure all controls are in place and working properly

**Answer:** A

**Explanation:**

The primary purpose of the gap analysis is to begin the benchmarking process against risk and security standards and frameworks.

**NEW QUESTION 61**

- (Exam Topic 4)

An audit scope statement defines the limits and outcomes from an audit.

Which of the following would NOT be included as part of an audit scope statement?

- A. Reports
- B. Certification
- C. Billing
- D. Exclusions

**Answer:** C

**Explanation:**

Billing for an audit, or other cost-related items, would not be part of an audit scope statement and would instead be handled prior to the actual audit as part of the contract between the organization and auditors. Reports, exclusions to the scope of the audit, and required certifications on behalf of the systems or auditors are all crucial elements of an audit scope statement.

**NEW QUESTION 63**

- (Exam Topic 4)

Which of the following is a management role, versus a technical role, as it pertains to data management and oversight?

- A. Data owner
- B. Data processor

- C. Database administrator
- D. Data custodian

**Answer:** A

**Explanation:**

Data owner is a management role that's responsible for all aspects of how data is used and protected. The database administrator, data custodian, and data processor are all technical roles that involve the actual use and consumption of data, or the implementation of security controls and policies with the data.

**NEW QUESTION 64**

- (Exam Topic 4)

Limits for resource utilization can be set at different levels within a cloud environment to ensure that no particular entity can consume a level of resources that impacts other cloud customers.

Which of the following is NOT a unit covered by limits?

- A. Hypervisor
- B. Cloud customer
- C. Virtual machine
- D. Service

**Answer:** A

**Explanation:**

The hypervisor level, as a backend cloud infrastructure component, is not a unit where limits may be applied to control resource utilization. Limits can be placed at the service, virtual machine, and cloud customer levels within a cloud environment.

**NEW QUESTION 67**

- (Exam Topic 4)

The cloud customer's trust in the cloud provider can be enhanced by all of the following except:

- A. SLAs
- B. Shared administration
- C. Audits
- D. real-time video surveillance

**Answer:** D

**Explanation:**

Video surveillance will not provide meaningful information and will not enhance trust. All the others will do it.

**NEW QUESTION 71**

- (Exam Topic 4)

Which component of ITIL involves planning for the restoration of services after an unexpected outage or incident?

- A. Continuity management
- B. Problem management
- C. Configuration management
- D. Availability management

**Answer:** A

**Explanation:**

Continuity management (or business continuity management) is focused on planning for the successful restoration of systems or services after an unexpected outage, incident, or disaster. Problem management is focused on identifying and mitigating known problems and deficiencies before they occur. Availability management is focused on making sure system resources, processes, personnel, and toolsets are properly allocated and secured to meet SLA requirements. Configuration management tracks and maintains detailed information about all IT components within an organization.

**NEW QUESTION 72**

- (Exam Topic 4)

IRM solutions allow an organization to place different restrictions on data usage than would otherwise be possible through traditional security controls.

Which of the following controls would be possible with IRM that would not with traditional security controls?

- A. Copy
- B. Read
- C. Delete
- D. Print

**Answer:** D

**Explanation:**

Traditional security controls would not be able to restrict a user from printing something that they have the ability to access and read, but IRM solutions would allow for such a restriction. If a user has permissions to read a file, he can also copy the file or print it under traditional controls, and the ability to modify or write will give the user the ability to delete.

**NEW QUESTION 76**

- (Exam Topic 4)

Hardening the operating system refers to all of the following except:



- A. Limiting administrator access
- B. Closing unused ports
- C. Removing antimalware agents
- D. Removing unnecessary services and libraries

**Answer:** C

**Explanation:**

Removing antimalware agents. Hardening the operating system means making it more secure. Limiting administrator access, closing unused ports, and removing unnecessary services and libraries all have the potential to make an OS more secure. But removing antimalware agents would actually make the system less secure. If anything, antimalware agents should be added, not removed.

**NEW QUESTION 77**

- (Exam Topic 4)

All of the following are terms used to described the practice of obscuring original raw data so that only a portion is displayed for operational purposes, except:

- A. Tokenization
- B. Masking
- C. Data discovery
- D. Obfuscation

**Answer:** C

**Explanation:**

Data discovery is a term used to describe the process of identifying information according to specific traits or categories. The rest are all methods for obscuring data.

**NEW QUESTION 80**

- (Exam Topic 4)

Data masking can be used to provide all of the following functionality, except:

- A. Test data in sandboxed environments
- B. Authentication of privileged users
- C. Enforcing least privilege
- D. Secure remote access

**Answer:** B

**Explanation:**

Data masking does not support authentication in any way. All the others are excellent use cases for data masking.

**NEW QUESTION 83**

- (Exam Topic 4)

During the course of an audit, which of the following would NOT be an input into the control requirements used as part of a gap analysis.

- A. Contractual requirements
- B. Regulations
- C. Vendor recommendations
- D. Corporate policy

**Answer:** C

**Explanation:**

Vendor recommendations would not be pertinent to the gap analysis after an audit. Although vendor recommendations will typically play a role in the development of corporate policies or contractual requirements, they are not required. Regulations, corporate policy, and contractual requirements all determine the expected or mandated controls in place on a system.

**NEW QUESTION 87**

- (Exam Topic 4)

All policies within the organization should include a section that includes all of the following, except:

- A. Policy adjudication
- B. Policy maintenance
- C. Policy review
- D. Policy enforcement

**Answer:** A

**Explanation:**

All the elements except adjudication need to be addressed in each policy. Adjudication is not an element of policy.

**NEW QUESTION 90**

- (Exam Topic 4)

Because of multitenancy, specific risks in the public cloud that don't exist in the other cloud service models include all the following except:

- A. DoS/DDoS
- B. Information bleed

- C. Risk of loss/disclosure due to legal seizures
- D. Escalation of privilege

**Answer:** A

**Explanation:**

DoS/DDoS threats and risks are not unique to the public cloud model.

**NEW QUESTION 93**

- (Exam Topic 4)

The GAPP framework was developed through a joint effort between the major Canadian and American professional accounting associations in order to assist their members with managing and preventing risks to the privacy of their data and customers. Which of the following is the meaning of GAPP?

- A. General accounting personal privacy
- B. Generally accepted privacy practices
- C. Generally accepted privacy principles
- D. General accounting privacy policies

**Answer:** C

**NEW QUESTION 98**

- (Exam Topic 4)

Which kind of SSAE audit report is a cloud customer most likely to receive from a cloud provider?

- A. SOC 1 Type 1
- B. SOC 2 Type 2
- C. SOC 3
- D. SOC 1 Type 2

**Answer:** C

**Explanation:**

The SOC 3 is the least detailed, so the provider is not concerned about revealing it. The SOC 1 Types 1 and 2 are about financial reporting, and not relevant. The SOC 2 Type 2 is much more detailed and will most likely be kept closely held by the provider.

**NEW QUESTION 102**

- (Exam Topic 4)

What masking strategy involves the replacing of sensitive data at the time it is accessed and used as it flows between the data and application layers of a service?

- A. Active
- B. Static
- C. Dynamic
- D. Transactional

**Answer:** C

**Explanation:**

Dynamic masking involves the live replacing of sensitive data fields during transactional use between the data and application layers of a service. Static masking involves creating a full data set with the sensitive data fields masked, but is not done during live transactions like dynamic masking. Active and transactional are offered as similar types of answers but are not types of masking.

**NEW QUESTION 106**

- (Exam Topic 4)

With an application hosted in a cloud environment, who could be the recipient of an eDiscovery order?

- A. Users
- B. Both the cloud provider and cloud customer
- C. The cloud customer
- D. The cloud provider

**Answer:** B

**Explanation:**

Either the cloud customer or the cloud provider could receive an eDiscovery order, and in almost all circumstances they would need to work together to ensure compliance.

**NEW QUESTION 111**

- (Exam Topic 4)

Because cloud providers will not give detailed information out about their infrastructures and practices to the general public, they will often use established auditing reports to ensure public trust, where the reputation of the auditors serves for assurance. Which type of audit reports can be used for general public trust assurances?

- A. SOC 2
- B. SAS-70
- C. SOC 3
- D. SOC 1

**Answer:** C

**Explanation:**

SOC Type 3 audit reports are very similar to SOC Type 2, with the exception that they are intended for general release and public audiences. SAS-70 audits have been deprecated. SOC Type 1 audit reports have a narrow scope and are intended for very limited release, whereas SOC Type 2 audit reports are intended for wider audiences but not general release.

**NEW QUESTION 113**

- (Exam Topic 4)

Which of the following report is most aligned with financial control audits?

- A. SSAE 16
- B. SOC 2
- C. SOC 1
- D. SOC 3

**Answer:** C

**Explanation:**

The SOC 1 report focuses primarily on controls associated with financial services. While IT controls are certainly part of most accounting systems today, the focus is on the controls around those financial systems.

**NEW QUESTION 118**

- (Exam Topic 4)

Which crucial aspect of cloud computing can be most threatened by insecure APIs?

- A. Automation
- B. Resource pooling
- C. Elasticity
- D. Redundancy

**Answer:** A

**Explanation:**

Cloud environments depend heavily on API calls for management and automation. Any vulnerability with the APIs can cause significant risk and exposure to all tenants of the cloud environment. Resource pooling and elasticity could both be impacted by insecure APIs, as both require automation and orchestration to operate properly, but automation is the better answer here. Redundancy would not be directly impacted by insecure APIs.

**NEW QUESTION 119**

- (Exam Topic 4)

Which format is the most commonly used standard for exchanging information within a federated identity system?

- A. XML
- B. HTML
- C. SAML
- D. JSON

**Answer:** C

**Explanation:**

Security Assertion Markup Language (SAML) is the most common data format for information exchange within a federated identity system. It is used to transmit and exchange authentication and authorization data. XML is similar to SAML, but it's used for general-purpose data encoding and labeling and is not used for the exchange of authentication and authorization data in the way that SAML is for federated systems. JSON is used similarly to XML, as a text-based data exchange format that typically uses attribute-value pairings, but it's not used for authentication and authorization exchange. HTML is used only for encoding web pages for web browsers and is not used for data exchange--and certainly not in a federated system.

**NEW QUESTION 124**

- (Exam Topic 4)

Which of the following are cloud computing roles?

- A. Cloud service broker and user
- B. Cloud customer and financial auditor
- C. CSP and backup service provider
- D. Cloud service auditor and object

**Answer:** C

**Explanation:**

The following groups form the key roles and functions associated with cloud computing. They do not constitute an exhaustive list but highlight the main roles and functions within cloud computing:

- Cloud customer: An individual or entity that utilizes or subscribes to cloud based services or resources.
- CSP: A company that provides cloud-based platform, infrastructure, application, or storage services to other organizations or individuals, usually for a fee; otherwise known to clients "as a service."
- Cloud backup service provider: A third-party entity that manages and holds operational responsibilities for cloud-based data backup services and solutions to customers from a central data center.
- CSB: Typically a third-party entity or company that looks to extend or enhance value to multiple customers of cloud-based services through relationships with multiple CSPs. It acts as a liaison between cloud services customers and CSPs, selecting the best provider for each customer and monitoring the services. The CSB can be utilized as a "middleman" to broker the best deal and customize services to the customer's requirements. May also resell cloud services.

- Cloud service auditor: Third-party organization that verifies attainment of SLAs.

**NEW QUESTION 128**

- (Exam Topic 4)

What is a key capability or characteristic of PaaS?

- A. Support for a homogenous environment
- B. Support for a single programming language
- C. Ability to reduce lock-in
- D. Ability to manually scale

**Answer: C**

**Explanation:**

PaaS should have the following key capabilities and characteristics:

- Support multiple languages and frameworks: PaaS should support multiple programming languages and frameworks, thus enabling the developers to code in whichever language they prefer or the design requirements specify. In recent times, significant strides and efforts have been taken to ensure that open source stacks are both supported and utilized, thus reducing “lock-in” or issues with interoperability when changing CSPs.
- Multiple hosting environments: The ability to support a wide variety of underlying hosting environments for the platform is key to meeting customer requirements and demands. Whether public cloud, private cloud, local hypervisor, or bare metal, supporting multiple hosting environments allows the application developer or administrator to migrate the application when and as required. This can also be used as a form of contingency and continuity and to ensure the ongoing availability.
- Flexibility: Traditionally, platform providers provided features and requirements that they felt suited the client requirements, along with what suited their service offering and positioned them as the provider of choice, with limited options for the customers to move easily. This has changed drastically, with extensibility and flexibility now afforded to meeting the needs and requirements of developer audiences. This has been heavily influenced by open source, which allows relevant plug-ins to be quickly and efficiently introduced into the platform.
- Allow choice and reduce lock-in: PaaS learns from previous horror stories and restrictions, proprietary meant red tape, barriers, and restrictions on what developers could do when it came to migration or adding features and components to the platform. Although the requirement to code to specific APIs was made available by the providers, they could run their apps in various environments based on commonality and standard API structures, ensuring a level of consistency and quality for customers and users.
- Ability to auto-scale: This enables the application to seamlessly scale up and down as required to accommodate the cyclical demands of users. The platform will allocate resources and assign these to the application as required. This serves as a key driver for any seasonal organizations that experience spikes and drops in usage.

**NEW QUESTION 132**

- (Exam Topic 4)

When using a PaaS solution, what is the capability provided to the customer?

- A. To deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools that the provider support
- B. The provider does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.
- C. To deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools that the provider support
- D. The consumer does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.
- E. To deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools that the consumer support
- F. The consumer does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.
- G. To deploy onto the cloud infrastructure provider-created or acquired applications created using programming languages, libraries, services, and tools that the provider support
- H. The consumer does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

**Answer: B**

**Explanation:**

According to “The NIST Definition of Cloud Computing,” in PaaS, “the capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

**NEW QUESTION 133**

- (Exam Topic 4)

Which of the following is NOT considered a type of data loss?

- A. Data corruption
- B. Stolen by hackers
- C. Accidental deletion
- D. Lost or destroyed encryption keys

**Answer: B**

**Explanation:**

The exposure of data by hackers is considered a data breach. Data loss focuses on the data availability rather than security. Data loss occurs when data becomes lost, unavailable, or destroyed, when it should not have been.

#### NEW QUESTION 138

- (Exam Topic 4)

The goals of SIEM solution implementation include all of the following, except:

- A. Dashboarding
- B. Performance enhancement
- C. Trend analysis
- D. Centralization of log streams

**Answer:** B

**Explanation:**

SIEM does not intend to provide any enhancement of performance; in fact, a SIEM solution may decrease performance because of additional overhead. All the rest are goals of SIEM implementations.

#### NEW QUESTION 142

- (Exam Topic 4)

What is the experimental technology that might lead to the possibility of processing encrypted data without having to decrypt it first?

- A. AES
- B. Link encryption
- C. One-time pads
- D. Homomorphic encryption

**Answer:** D

**Explanation:**

AES is an encryption standard. Link encryption is a method for protecting communications traffic. One-time pads are an encryption method.

#### NEW QUESTION 145

- (Exam Topic 4)

Which protocol, as a part of TLS, handles negotiating and establishing a connection between two parties?

- A. Record
- B. Binding
- C. Negotiation
- D. Handshake

**Answer:** D

**Explanation:**

The TLS handshake protocol is what negotiates and establishes the TLS connection between two parties and enables a secure communications channel to then handle data transmissions. The TLS record protocol is the actual secure communications method for transmitting data; it's responsible for the encryption and authentication of packets throughout their transmission between the parties, and in some cases it also performs compression. Negotiation and binding are not protocols under TLS.

#### NEW QUESTION 147

- (Exam Topic 4)

Many activities within a cloud environment are performed via programmatic means, where complex and distributed operations are handled without the need to perform each step individually.

Which of the following concepts does this describe?

- A. Orchestration
- B. Provisioning
- C. Automation
- D. Allocation

**Answer:** A

**Explanation:**

Orchestration is the programmatic means of managing and coordinating activities within a cloud environment and allowing for a commensurate level of automation and self-service. Provisioning, allocation, and automation are all components of orchestration, but none refers to the overall concept.

#### NEW QUESTION 150

- (Exam Topic 4)

Key maintenance and security are paramount within a cloud environment due to the widespread use of encryption for both data and transmissions.

Which of the following key-management systems would provide the most robust control over and ownership of the key-management processes for the cloud customer?

- A. Remote key management service
- B. Local key management service
- C. Client key management service
- D. Internal key management service

**Answer:** A

**Explanation:**

A remote key management system resides away from the cloud environment and is owned and controlled by the cloud customer. With the use of a remote service,



the cloud customer can avoid being locked into a proprietary system from the cloud provider, but also must ensure that service is compatible with the services offered by the cloud provider. A local key management system resides on the actual servers using the keys, which does not provide optimal security or control over them. Both the terms internal key management service and client key management service are provided as distractors.

**NEW QUESTION 152**

- (Exam Topic 4)

What are third-party providers of IAM functions for the cloud environment?

- A. AESs
- B. SIEMs
- C. DLPs
- D. CASBs

**Answer:** D

**Explanation:**

Data loss, leak prevention, and protection is a family of tools used to reduce the possibility of unauthorized disclosure of sensitive information. SIEMs are tools used to collate and manage log data. AES is an encryption standard.

**NEW QUESTION 157**

- (Exam Topic 4)

Which of the following are considered to be the building blocks of cloud computing?

- A. CPU, RAM, storage, and networking
- B. Data, CPU, RAM, and access control
- C. Data, access control, virtualization, and services
- D. Storage, networking, printing, and virtualization

**Answer:** A

**NEW QUESTION 158**

- (Exam Topic 4)

DLP solutions can aid in deterring loss due to which of the following?

- A. Power failure
- B. Performance
- C. Bad policy
- D. Malicious disclosure

**Answer:** D

**Explanation:**

DLP tools can identify outbound traffic that violates the organization's policies. DLP will not protect against losses due to performance issues or power failures. The DLP solution must be configured according to the organization's policies, so bad policies will attenuate the effectiveness of DLP tools, not the other way around.

**NEW QUESTION 161**

- (Exam Topic 4)

Security is a critical yet often overlooked consideration for BCDR planning. At which stage of the planning process should security be involved?

- A. Scope definition
- B. Requirements gathering
- C. Analysis
- D. Risk assessment

**Answer:** A

**Explanation:**

Defining the scope of the plan is the very first step in the overall process. Security should be included from the very earliest stages and throughout the entire process. Bringing in security at a later stage can lead to additional costs and time delays to compensate for gaps in planning. Risk assessment, requirements gathering, and analysis are all later steps in the process, and adding in security at any of those points can potentially cause increased costs and time delays.

**NEW QUESTION 164**

- (Exam Topic 4)

Which of the following areas of responsibility would be shared between the cloud customer and cloud provider within the Software as a Service (SaaS) category?

- A. Data
- B. Governance
- C. Application
- D. Physical

**Answer:** C

**Explanation:**

With SaaS, the application is a shared responsibility between the cloud provider and cloud customer. Although the cloud provider is responsible for deploying, maintaining, and securing the application, the cloud customer does carry some responsibility for the configuration of users and options. Regardless of the cloud service category used, the physical environment is always the sole responsibility of the cloud provider. With all cloud service categories, the data and governance



are always the sole responsibility of the cloud customer.

#### NEW QUESTION 165

- (Exam Topic 4)

Which of the following statements about Type 1 hypervisors is true?

- A. The hardware vendor and software vendor are different.
- B. The hardware vendor and software vendor are the same
- C. The hardware vendor provides an open platform for software vendors.
- D. The hardware vendor and software vendor should always be different for the sake of security.

**Answer: B**

#### Explanation:

With a Type 1 hypervisor, the management software and hardware are tightly tied together and provided by the same vendor on a closed platform. This allows for optimal security, performance, and support. The other answers are all incorrect descriptions of a Type 1 hypervisor.

#### NEW QUESTION 169

- (Exam Topic 4)

When reviewing the BIA after a cloud migration, the organization should take into account new factors related to data breach impacts. One of these new factors is:

- A. Many states have data breach notification laws.
- B. Breaches can cause the loss of proprietary data.
- C. Breaches can cause the loss of intellectual property.
- D. Legal liability can't be transferred to the cloud provider.

**Answer: D**

#### Explanation:

State notification laws and the loss of proprietary data/intellectual property pre-existed the cloud; only the lack of ability to transfer liability is new.

#### NEW QUESTION 172

- (Exam Topic 4)

Identity and access management (IAM) is a security discipline that ensures which of the following?

- A. That all users are properly authorized
- B. That the right individual gets access to the right resources at the right time for the right reasons.
- C. That all users are properly authenticated
- D. That unauthorized users will get access to the right resources at the right time for the right reasons

**Answer: B**

#### Explanation:

Options A and C are also correct, but included in B, making B the best choice. D is incorrect, because we don't want unauthorized users gaining access.

#### NEW QUESTION 173

- (Exam Topic 4)

When using an IaaS solution, what is the capability provided to the customer?

- A. To provision processing, storage, networks, and other fundamental computing resources when the consumer is able to deploy and run arbitrary software, which can include OSs and applications.
- B. To provision processing, storage, networks, and other fundamental computing resources when the auditor is able to deploy and run arbitrary software, which can include OSs and applications.
- C. To provision processing, storage, networks, and other fundamental computing resources when the provider is able to deploy and run arbitrary software, which can include OSs and applications.
- D. To provision processing, storage, networks, and other fundamental computing resources when the consumer is not able to deploy and run arbitrary software, which can include OSs and applications.

**Answer: A**

#### Explanation:

According to "The NIST Definition of Cloud Computing," in IaaS, "the capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls).

#### NEW QUESTION 175

- (Exam Topic 4)

Which aspect of data poses the biggest challenge to using automated tools for data discovery and programmatic data classification?

- A. Quantity
- B. Language
- C. Quality
- D. Number of courses

**Answer: C**

**Explanation:**

The biggest challenge for properly using any programmatic tools in data discovery is the actual quality of the data, including the data being uniform and well structured, labels being properly applied, and other similar facets. Without data being organized in such a manner, it is extremely difficult for programmatic tools to automatically synthesize and make determinations from it. The overall quantity of data, as well as the number of sources, does not pose an enormous challenge for data discovery programs, other than requiring a longer time to process the data. The language of the data itself should not matter to a program that is designed to process it, as long as the data is well formed and consistent.

**NEW QUESTION 176**

- (Exam Topic 4)

Which type of testing uses the same strategies and toolsets that hackers would use?

- A. Static
- B. Malicious
- C. Penetration
- D. Dynamic

**Answer:** C

**Explanation:**

Penetration testing involves using the same strategies and toolsets that hackers would use against a system to discovery potential vulnerabilities. Although the term malicious captures much of the intent of penetration testing from the perspective of an attacker, it is not the best answer. Static and dynamic are two types of system testing--where static is done offline and with knowledge of the system, and dynamic is done on a live system without any previous knowledge is associated--but neither describes the type of testing being asked for in the question.

**NEW QUESTION 178**

- (Exam Topic 4)

The goals of SIEM solution implementation include all of the following, except:

- A. Dashboarding
- B. Performance enhancement
- C. Trend analysis
- D. Centralization of log streams

**Answer:** B

**Explanation:**

SIEM does not intend to provide any enhancement of performance; in fact, a SIEM solution may decrease performance because of additional overhead. All the rest are goals of SIEM implementations.

**NEW QUESTION 179**

- (Exam Topic 4)

Which ITIL component is focused on anticipating predictable problems and ensuring that configurations and operations are in place to prevent these problems from ever occurring?

- A. Availability management
- B. Continuity management
- C. Configuration management
- D. Problem management

**Answer:** D

**Explanation:**

Problem management is focused on identifying and mitigating known problems and deficiencies before they are able to occur, as well as on minimizing the impact of incidents that cannot be prevented. Continuity management (or business continuity management) is focused on planning for the successful restoration of systems or services after an unexpected outage, incident, or disaster. Availability management is focused on making sure system resources, processes, personnel, and toolsets are properly allocated and secured to meet SLA requirements. Configuration management tracks and maintains detailed information about all IT components within an organization.

**NEW QUESTION 181**

- (Exam Topic 4)

Many aspects of cloud computing bring enormous benefits over a traditional data center, but also introduce new challenges unique to cloud computing.

Which of the following aspects of cloud computing makes appropriate data classification of high importance?

- A. Multitenancy
- B. Interoperability
- C. Portability
- D. Reversibility

**Answer:** A

**Explanation:**

With multitenancy, where different cloud customers all share the same physical systems and networks, data classification becomes even more important to ensure that the appropriate security controls are applied immediately to prevent any potential leakage or exposure to other customers. Portability refers to the ability to move easily from one cloud provider to another. Interoperability refers to the ability to reuse components and services for different uses. Reversibility refers to the ability of the cloud customer to quickly and completely remove all data and services from a cloud provider and to verify the removal.

**NEW QUESTION 184**

- (Exam Topic 4)

A main objective for an organization when utilizing cloud services is to avoid vendor lock-in so as to ensure flexibility and maintain independence. Which core concept of cloud computing is most related to vendor lock-in?

- A. Scalability
- B. Interoperability
- C. Portability
- D. Reversibility

**Answer: C**

**Explanation:**

Portability is the ability for a cloud customer to easily move their systems, services, and applications among different cloud providers. By avoiding reliance on proprietary APIs and other vendor-specific cloud features, an organization can maintain flexibility to move among the various cloud providers with greater ease. Reversibility refers to the ability for a cloud customer to quickly and easily remove all their services and data from a cloud provider. Interoperability is the ability to reuse services and components for other applications and uses. Scalability refers to the ability of a cloud environment to add or remove resources to meet current demands.

**NEW QUESTION 187**

- (Exam Topic 4)

In a federated identity arrangement using a trusted third-party model, who is the identity provider and who is the relying party?

- A. The users of the various organizations within the federations within the federation/a CASB
- B. Each member organization/a trusted third party
- C. Each member organization/each member organization
- D. A contracted third party/the various member organizations of the federation

**Answer: D**

**Explanation:**

In a trusted third-party model of federation, each member organization outsources the review and approval task to a third party they all trust. This makes the third party the identifier (it issues and manages identities for all users in all organizations in the federation), and the various member organizations are the relying parties (the resource providers that share resources based on approval from the third party).

**NEW QUESTION 188**

- (Exam Topic 4)

Which of the following is the dominant driver behind the regulations to which a system or application must adhere?

- A. Data source
- B. Locality
- C. Contract
- D. SLA

**Answer: B**

**Explanation:**

The locality--or physical location and jurisdiction where the system or data resides--is the dominant driver of regulations. This may be based on the type of data contained within the application or the way in which the data is used. The contract and SLA both articulate requirements for regulatory compliance and the responsibilities for the cloud provider and cloud customer, but neither artifact defines the actual requirements. Instead, the contract and SLA merely form the official documentation between the cloud provider and cloud customer. The source of the data may place contractual requirements or best practice guidelines on its usage, but ultimately jurisdiction has legal force and greater authority.

**NEW QUESTION 193**

- (Exam Topic 4)

The various models generally available for cloud BC/DR activities include all of the following except:

- A. Private architecture, cloud backup
- B. Cloud provider, backup from another cloud provider
- C. Cloud provider, backup from same provider
- D. Cloud provider, backup from private provider

**Answer: D**

**Explanation:**

This is not a normal configuration and would not likely provide genuine benefit.

**NEW QUESTION 194**

- (Exam Topic 4)

User access to the cloud environment can be administered in all of the following ways except:

- A. Provider provides administration on behalf the customer
- B. Customer directly administers access
- C. Third party provides administration on behalf of the customer
- D. Customer provides administration on behalf of the provider

**Answer: D**

**Explanation:**

The customer does not administer on behalf of the provider. All the rest are possible options.

#### NEW QUESTION 198

- (Exam Topic 4)

Which protocol, as a part of TLS, handles the actual secure communications and transmission of data?

- A. Negotiation
- B. Handshake
- C. Transfer
- D. Record

**Answer: D**

#### Explanation:

The TLS record protocol is the actual secure communications method for transmitting data; it's responsible for encrypting and authenticating packets throughout their transmission between the parties, and in some cases it also performs compression. The TLS handshake protocol is what negotiates and establishes the TLS connection between two parties and enables the secure communications channel to then handle data transmissions. Negotiation and transfer are not protocols under TLS.

#### NEW QUESTION 203

- (Exam Topic 4)

When an organization is considering the use of cloud services for BCDR planning and solutions, which of the following cloud concepts would be the most important?

- A. Reversibility
- B. Elasticity
- C. Interoperability
- D. Portability

**Answer: D**

#### Explanation:

Portability is the ability for a service or system to easily move among different cloud providers. This is essential for using a cloud solution for BCDR because vendor lock-in would inhibit easily moving and setting up services in the event of a disaster, or it would necessitate a large number of configuration or component changes to implement. Interoperability, or the ability to reuse components for other services or systems, would not be an important factor for BCDR. Reversibility, or the ability to remove all data quickly and completely from a cloud environment, would be important at the end of a disaster, but would not be important during setup and deployment. Elasticity, or the ability to resize resources to meet current demand, would be very beneficial to a BCDR situation, but not as vital as portability.

#### NEW QUESTION 206

- (Exam Topic 4)

With a federated identity system, what does the identity provider send information to after a successful authentication?

- A. Relying party
- B. Service originator
- C. Service relay
- D. Service relay

**Answer: A**

#### Explanation:

Upon successful authentication, the identity provider sends an assertion with appropriate attributes to the relying party to grant access and assign appropriate roles to the user. The other terms provided are similar sounding to the correct term but are not actual components of a federated system.

#### NEW QUESTION 210

- (Exam Topic 4)

BCDR strategies typically do not involve the entire operations of an organization, but only those deemed critical to their business.

Which concept pertains to the amount of data and services needed to reach the predetermined level of operations?

- A. SRE
- B. RPO
- C. RSL
- D. RTO

**Answer: B**

#### Explanation:

The recovery point objective (RPO) sets and defines the amount of data an organization must have available or accessible to reach the predetermined level of operations necessary during a BCDR situation. The recovery time objective (RTO) measures the amount of time necessary to recover operations to meet the BCDR plan. The recovery service level (RSL) measures the percentage of operations that would be recovered during a BCDR situation. SRE is provided as an erroneous response.

#### NEW QUESTION 213

- (Exam Topic 4)

Which component of ITIL pertains to planning, coordinating, executing, and validating changes and rollouts to production environments?

- A. Release management
- B. Availability management

- C. Problem management
- D. Change management

**Answer:** A

**Explanation:**

Release management involves planning, coordinating, executing, and validating changes and rollouts to the production environment. Change management is a higher-level component than release management and also involves stakeholder and management approval, rather than specifically focusing the actual release itself. Availability management is focused on making sure system resources, processes, personnel, and toolsets are properly allocated and secured to meet SLA requirements. Problem management is focused on identifying and mitigating known problems and deficiencies before they occur.

**NEW QUESTION 218**

- (Exam Topic 4)

In the cloud motif, the data processor is usually:

- A. The cloud customer
- B. The cloud provider
- C. The cloud access security broker
- D. The party that assigns access rights

**Answer:** B

**Explanation:**

In legal terms, when “data processor” is defined, it refers to anyone who stores, handles, moves, or manipulates data on behalf of the data owner or controller. In the cloud computing realm, this is the cloud provider.

**NEW QUESTION 219**

- (Exam Topic 4)

What is the term we use to describe the general ease and efficiency of moving data from one cloud provider either to another cloud provider or down from the cloud?

- A. Obfuscation
- B. Elasticity
- C. Mobility
- D. Portability

**Answer:** D

**Explanation:**

Elasticity is the name for the benefit of cloud computing where resources can be apportioned as necessary to meet customer demand. Obfuscation is a technique to hide full raw datasets, either from personnel who do not have need to know or for use in testing. Mobility is not a term pertinent to the CBK.

**NEW QUESTION 220**

- (Exam Topic 4)

Countermeasures for protecting cloud operations against internal threats include all of the following except:

- A. Mandatory vacation
- B. Least privilege
- C. Separation of duties
- D. Conflict of interest

**Answer:** D

**Explanation:**

Conflict of interest is a threat, not a control.

**NEW QUESTION 222**

- (Exam Topic 4)

What must SOAP rely on for security since it does not provide security as a built-in capability?

- A. Encryption
- B. Tokenization
- C. TLS
- D. SSL

**Answer:** A

**Explanation:**

Simple Object Access Protocol (SOAP) uses Extensible Markup Language (XML) for data passing, and it must rely on the encryption of those data packages for security. TLS and SSL (before it was deprecated) represent two common approaches to using encryption for protection of data transmissions. However, they are only two possible options and do not encapsulate the overall concept the question is looking for. Tokenization, which involves the replacement of sensitive data with opaque values, would not be appropriate for use with SOAP because the actual data is needed by the services.

**NEW QUESTION 223**

- (Exam Topic 4)

Which of the following types of data would fall under data rights management (DRM) rather than information rights management (IRM)?



- A. Personnel data
- B. Security profiles
- C. Publications
- D. Financial records

**Answer:** C

**Explanation:**

Whereas IRM is used to protect a broad range of data, DRM is focused specifically on the protection of consumer media, such as publications, music, movies, and so on. IRM is used to protect general institution data, so financial records, personnel data, and security profiles would all fall under the auspices of IRM.

**NEW QUESTION 226**

- (Exam Topic 4)

Which component of ITIL involves the creation of an RFC ticket and obtaining official approvals for it?

- A. Problem management
- B. Release management
- C. Deployment management
- D. Change management

**Answer:** D

**Explanation:**

The change management process involves the creation of the official Request for Change (RFC) ticket, which is used to document the change, obtain the required approvals from management and stakeholders, and track the change to completion. Release management is a subcomponent of change management, where the actual code or configuration change is put into place. Deployment management is similar to release management, but it's where changes are actually implemented on systems. Problem management is focused on the identification and mitigation of known problems and deficiencies before they are able to occur.

**NEW QUESTION 231**

- (Exam Topic 4)

Which of the following is considered an administrative control?

- A. Keystroke logging
- B. Access control process
- C. Door locks
- D. Biometric authentication

**Answer:** B

**Explanation:**

A process is an administrative control; sometimes, the process includes elements of other types of controls (in this case, the access control mechanism might be a technical control, or it might be a physical control), but the process itself is administrative. Keystroke logging is a technical control (or an attack, if done for malicious purposes, and not for auditing); door locks are a physical control; and biometric authentication is a technological control.

**NEW QUESTION 235**

- (Exam Topic 4)

Which of the following is the concept of segregating information or processes, within the same system or application, for security reasons?

- A. Cell blocking
- B. Sandboxing
- C. Pooling
- D. Fencing

**Answer:** B

**Explanation:**

Sandboxing involves the segregation and isolation of information or processes from other information or processes within the same system or application, typically for security concerns. Sandboxing is generally used for data isolation (for example, keeping different communities and populations of users isolated from others with similar data). In IT terminology, pooling typically means bringing together and consolidating resources or services, not segregating or separating them. Cell blocking and fencing are both erroneous terms.

**NEW QUESTION 236**

- (Exam Topic 4)

Every security program and process should have which of the following?

- A. Severe penalties
- B. Multifactor authentication
- C. Foundational policy
- D. Homomorphic encryption

**Answer:** C

**Explanation:**

Policy drives all programs and functions in the organization; the organization should not conduct any operations that don't have a policy governing them. Penalties may or may not be an element of policy, and severity depends on the topic. Multifactor authentication and homomorphic encryption are red herrings here.

**NEW QUESTION 239**



- (Exam Topic 4)

Which is the lowest level of the CSA STAR program?

- A. Attestation
- B. Self-assessment
- C. Hybridization
- D. Continuous monitoring

**Answer: B**

**Explanation:**

The lowest level is Level 1, which is self-assessment, Level 2 is an external third-party attestation, and Level 3 is a continuous-monitoring program. Hybridization does not exist as part of the CSA STAR program.

**NEW QUESTION 244**

- (Exam Topic 4)

Which of the following terms is NOT a commonly used category of risk acceptance?

- A. Moderate
- B. Critical
- C. Minimal
- D. Accepted

**Answer: D**

**Explanation:**

Accepted is not a risk acceptance category. The risk acceptance categories are minimal, low, moderate, high, and critical.

**NEW QUESTION 249**

- (Exam Topic 4)

Tokenization requires two distinct \_\_\_\_\_.

- A. Authentication factors
- B. Personnel
- C. Databases
- D. Encryption

**Answer: C**

**Explanation:**

In order to implement tokenization, there will need to be two databases: the database containing the raw, original data, and the token database containing tokens that map to original data. Having two-factor authentication is nice, but certainly not required. Encryption keys are not necessary for tokenization. Two-person integrity does not have anything to do with tokenization.

**NEW QUESTION 254**

- (Exam Topic 3)

The REST API is a widely used standard for communications of web-based services between clients and the servers hosting them.

Which protocol does the REST API depend on?

- A. HTTP
- B. SSH
- C. SAML
- D. XML

**Answer: A**

**Explanation:**

Representational State Transfer (REST) is a software architectural scheme that applies the components, connectors, and data conduits for many web applications used on the Internet. It uses and relies on the HTTP protocol and supports a variety of data formats. Extensible Markup Language (XML) and Security Assertion Markup Language (SAML) are both standards for exchanging encoded data between two parties, with XML being for more general use and SAML focused on authentication and authorization data. Secure Shell client (SSH) is a secure method for allowing remote login to systems over a network.

**NEW QUESTION 256**

- (Exam Topic 3)

Where is a DLP solution generally installed when utilized for monitoring data in transit?

- A. Network perimeter
- B. Database server
- C. Application server
- D. Web server

**Answer: A**

**Explanation:**

To monitor data in transit, a DLP solution would optimally be installed at the network perimeter, to ensure that data leaving the network through various protocols conforms to security controls and policies. An application server or a web server would be more appropriate for monitoring data in use, and a database server would be an example of a location appropriate for monitoring data at rest.

#### NEW QUESTION 259

- (Exam Topic 3)

Modern web service systems are designed for high availability and resiliency. Which concept pertains to the ability to detect problems within a system, environment, or application and programmatically invoke redundant systems or processes for mitigation?

- A. Elasticity
- B. Redundancy
- C. Fault tolerance
- D. Automation

**Answer:** C

#### Explanation:

Fault tolerance allows a system to continue functioning, even with degraded performance, if portions of it fail or degrade, without the entire system or service being taken down. It can detect problems within a service and invoke compensating systems or functions to keep functionality going. Although redundancy is similar to fault tolerance, it is more focused on having additional copies of systems available, either active or passive, that can take up services if one system goes down. Elasticity pertains to the ability of a system to resize to meet demands, but it is not focused on system failures. Automation, and its role in maintaining large systems with minimal intervention, is not directly related to fault tolerance.

#### NEW QUESTION 264

- (Exam Topic 3)

Which of the following is considered an internal redundancy for a data center?

- A. Power feeds
- B. Chillers
- C. Network circuits
- D. Generators

**Answer:** B

#### Explanation:

Chillers and cooling systems are internal to a data center and its operations, and as such they are considered an internal redundancy. Power feeds, network circuits, and generators are all external to a data center and provide utility services to them, which makes them an external redundancy.

#### NEW QUESTION 266

- (Exam Topic 3)

The European Union is often considered the world leader in regard to the privacy of personal data and has declared privacy to be a "human right." In what year did the EU first assert this principle?

- A. 1995
- B. 2000
- C. 2010
- D. 1999

**Answer:** A

#### Explanation:

The EU passed Directive 95/46 EC in 1995, which established data privacy as a human right. The other years listed are incorrect.

#### NEW QUESTION 271

- (Exam Topic 3)

An SLA contains the official requirements for contract performance and satisfaction between the cloud provider and cloud customer. Which of the following would NOT be a component with measurable metrics and requirements as part of an SLA?

- A. Network
- B. Users
- C. Memory
- D. CPU

**Answer:** B

#### Explanation:

Dealing with users or user access would not be an appropriate item for inclusion in an SLA specifically. However, user access and user experience would be covered indirectly through other metrics. Memory, CPU, and network resources are all typically included within an SLA for availability and response times when dealing with any incidents.

#### NEW QUESTION 275

- (Exam Topic 3)

Which of the following systems is used to employ a variety of different techniques to discover and alert on threats and potential threats to systems and networks?

- A. IDS
- B. IPS
- C. Firewall
- D. WAF

**Answer:** A

**Explanation:**

An intrusion detection system (IDS) is implemented to watch network traffic and operations, using predefined criteria or signatures, and alert administrators if anything suspect is found. An intrusion prevention system (IPS) is similar to an IDS but actually takes action against suspect traffic, whereas an IDS just alerts when it finds anything suspect. A firewall works at the network level and only takes into account IP addresses, ports, and protocols; it does not inspect the traffic for patterns or content. A web application firewall (WAF) works at the application layer and provides additional security via proxying, filtering service requests, or blocking based on additional factors such as the client and requests.

**NEW QUESTION 276**

- (Exam Topic 3)

Which cloud service category would be most ideal for a cloud customer that is developing software to test its applications among multiple hosting providers to determine the best option for its needs?

- A. DaaS
- B. PaaS
- C. IaaS
- D. SaaS

**Answer: B**

**Explanation:**

Platform as a Service would allow software developers to quickly and easily deploy their applications among different hosting providers for testing and validation in order to determine the best option. Although IaaS would also be appropriate for hosting applications, it would require too much configuration of application servers and libraries in order to test code. Conversely, PaaS would provide a ready-to-use environment from the onset. DaaS would not be appropriate in any way for software developers to use to deploy applications. IaaS would not be appropriate in this scenario because it would require the developers to also deploy and maintain the operating system images or to contract with another firm to do so. SaaS, being a fully functional software platform, would not be appropriate for deploying applications into.

**NEW QUESTION 281**

- (Exam Topic 3)

A DLP solution/implementation has three main components. Which of the following is NOT one of the three main components?

- A. Monitoring
- B. Enforcement
- C. Auditing
- D. Discovery and classification

**Answer: C**

**Explanation:**

Auditing, which can be supported to varying degrees by DLP solutions, is not a core component of them. Data loss prevention (DLP) solutions have core components of discovery and classification, enforcement, and monitoring. Discovery and classification are concerned with determining which data should be applied to the DLP policies, and then determining its classification level. Monitoring is concerned with the actual watching of data and how it's used through its various stages. Enforcement is the actual application of policies determined from the discovery stage and then triggered during the monitoring stage.

**NEW QUESTION 286**

- (Exam Topic 3)

Where is an XML firewall most commonly and effectively deployed in the environment?

- A. Between the application and data layers
- B. Between the presentation and application layers
- C. Between the IPS and firewall
- D. Between the firewall and application server

**Answer: D**

**Explanation:**

An XML firewall is most commonly deployed in line between the firewall and application server to validate XML code before it reaches the application. An XML firewall is intended to validate XML before it reaches the application. Placing the XML firewall between the presentation and application layers, between the firewall and IPS, or between the application and data layers would not serve the intended purpose.

**NEW QUESTION 287**

- (Exam Topic 3)

Which cloud deployment model would be ideal for a group of universities looking to work together, where each university can gain benefits according to its specific needs?

- A. Private
- B. Public
- C. Hybrid
- D. Community

**Answer: D**

**Explanation:**

A community cloud is owned and maintained by similar organizations working toward a common goal. In this case, the universities would all have very similar needs and calendar requirements, and they would not be financial competitors of each other. Therefore, this would be an ideal group for working together within a community cloud. A public cloud model would not work in this scenario because it is designed to serve the largest number of customers, would not likely be targeted toward specific requirements for individual customers, and would not be willing to make changes for them. A private cloud could accommodate such needs, but would not meet the criteria for a group working together, and a hybrid cloud spanning multiple cloud providers would not fit the specifics of the question.

#### NEW QUESTION 291

- (Exam Topic 3)

Although host-based and network-based IDSs perform similar functions and have similar capabilities, which of the following is an advantage of a network-based IDS over a host-based IDS, assuming all capabilities are equal?

- A. Segregated from host systems
- B. Network access
- C. Scalability
- D. External to system patching

**Answer:** A

#### Explanation:

A network-based IDS has the advantage of being segregated from host systems, and as such, it would not be open to compromise in the same manner a host-based system would be. Although a network-based IDS would be external to system patching, this is not the best answer here because it is a minor concern compared to segregation due to possible host compromise. Scalability is also not the best answer because, although a network-based IDS does remove processing from the host system, it is not a primary security concern. Network access is not a consideration because both a host-based IDS and a network-based IDS would have access to network resources.

#### NEW QUESTION 293

- (Exam Topic 3)

Within a federated identity system, which of the following would you be MOST likely to use for sending information for consumption by a relying party?

- A. XML
- B. HTML
- C. WS-Federation
- D. SAML

**Answer:** D

#### Explanation:

The Security Assertion Markup Language (SAML) is the most widely used method for encoding and sending attributes and other information from an identity provider to a relying party. WS-Federation, which is used by Active Directory Federation Services (ADFS), is the second most used method for sending information to a relying party, but it is not a better choice than SAML. XML is similar to SAML in the way it encodes and labels data, but it does not have all of the required extensions that SAML does. HTML is not used within federated systems at all.

#### NEW QUESTION 297

- (Exam Topic 3)

Your boss has tasked your team with getting your legacy systems and applications connected with new cloud-based services that management has decided are crucial to customer service and offerings.

Which role would you be assuming under this directive?

- A. Cloud service administrator
- B. Cloud service user
- C. Cloud service integrator
- D. Cloud service business manager

**Answer:** C

#### Explanation:

The cloud service integrator role is responsible for connecting and integrating existing services and applications with cloud-based services. A cloud service administrator is responsible for testing, monitoring, and securing cloud services, as well as providing usage reporting and dealing with service problems. The cloud service user is someone who consumes cloud services. The cloud service business manager is responsible for overseeing the billing, auditing, and purchasing of cloud services.

#### NEW QUESTION 302

- (Exam Topic 3)

With software-defined networking (SDN), which two types of network operations are segregated to allow for granularity and delegation of administrative access and functions?

- A. Filtering and forwarding
- B. Filtering and firewalling
- C. Firewalling and forwarding
- D. Forwarding and protocol

**Answer:** A

#### Explanation:

With SDN, the filtering and forwarding capabilities and administration are separated. This allows the cloud provider to build interfaces and management tools for administrative delegation of filtering configuration, without having to allow direct access to underlying network equipment. Firewalling and protocols are both terms related to networks, but they are not components SDN is concerned with.

#### NEW QUESTION 303

- (Exam Topic 3)

Within a federated identity system, which entity accepts tokens from the identity provider?

- A. Assertion manager
- B. Servicing party
- C. Proxy party

D. Relying party

**Answer:** D

**Explanation:**

The relying party is attached to the application or service that a user is trying to access, and it accepts authentication tokens from the user's own identity provider in order to facilitate authentication and access. The other terms provided are all associated with federated systems, but none is the correct choice in this case.

**NEW QUESTION 306**

- (Exam Topic 3)

DNSSEC was designed to add a layer of security to the DNS protocol. Which type of attack was the DNSSEC extension designed to mitigate?

- A. Account hijacking
- B. Snooping
- C. Spoofing
- D. Data exposure

**Answer:** C

**Explanation:**

DNSSEC is an extension to the regular DNS protocol that utilizes digital signing of DNS query results, which can be verified to come from an authoritative source. This verification mitigates the ability for a rogue DNS server to be used to spoof query results and to direct users to malicious sites. DNSSEC provides for the verification of the integrity of DNS queries. It does not provide any protection from snooping or data exposure. Although it may help lessen account hijacking by preventing users from being directed to rogue sites, it cannot by itself eliminate the possibility.

**NEW QUESTION 310**

- (Exam Topic 3)

Audits are either done based on the status of a system or application at a specific time or done as a study over a period of time that takes into account changes and processes.

Which of the following pairs matches an audit type that is done over time, along with the minimum span of time necessary for it?

- A. SOC Type 2, one year
- B. SOC Type 1, one year
- C. SOC Type 2, one month
- D. SOC Type 2, six months

**Answer:** D

**Explanation:**

SOC Type 2 audits are done over a period of time, with six months being the minimum duration. SOC Type 1 audits are designed with a scope that's a static point in time, and the other times provided for SOC Type 2 are incorrect.

**NEW QUESTION 314**

- (Exam Topic 3)

Which of the following actions will NOT make data part of the create phase of the cloud data lifecycle?

- A. Modify data
- B. Modify metadata
- C. New data
- D. Import data

**Answer:** B

**Explanation:**

Modifying the metadata does not change the actual data. Although this initial phase is called "create," it can also refer to modification. In essence, any time data is considered "new," it is in the create phase. This can come from data that is newly created, data that is imported into a system and is new to that system, or data that is already present and is modified into a new form or value.

**NEW QUESTION 319**

- (Exam Topic 3)

If a company needed to guarantee through contract and SLAs that a cloud provider would always have available sufficient resources to start their services and provide a certain level of provisioning, what would the contract need to refer to?

- A. Limit
- B. Reservation
- C. Assurance
- D. Guarantee

**Answer:** B

**Explanation:**

A reservation guarantees to a cloud customer that they will have access to a minimal level of resources to run their systems, which will help mitigate against DoS attacks or systems that consume high levels of resources. A limit refers to the enforcement of a maximum level of resources that can be consumed by or allocated to a cloud customer, service, or system. Both guarantee and assurance are terms that sound similar to reservation, but they are not correct choices.

**NEW QUESTION 320**

- (Exam Topic 3)



Which of the following roles would be responsible for managing memberships in federations and the use and integration of federated services?

- A. Inter-cloud provider
- B. Cloud service business manager
- C. Cloud service administrator
- D. Cloud service integrator

**Answer:** A

**Explanation:**

The inter-cloud provider is responsible for peering with other cloud services and providers, as well as overseeing and managing federations and federated services. A cloud service administrator is responsible for testing, monitoring, and securing cloud services, as well as providing usage reporting and dealing with service problems. The cloud service integrator is responsible for connecting existing systems and services with a cloud. The cloud service business manager is responsible for overseeing the billing, auditing, and purchasing of cloud services.

**NEW QUESTION 323**

- (Exam Topic 3)

Many of the traditional concepts of systems and services for a traditional data center also apply to the cloud. Both are built around key computing concepts. Which of the following compromise the two facets of computing?

- A. CPU and software
- B. CPU and storage
- C. CPU and memory
- D. Memory and networking

**Answer:** C

**Explanation:**

The CPU and memory resources of an environment together comprise its "computing" resources. Cloud environments, especially public clouds, are enormous pools of resources for computing and are typically divided among a large number of customers with constantly changing needs and demands. Although storage and networking are core components of a cloud environment, they do not comprise its computing core. Software, much like within a traditional data center, is highly subjective based on the application, system, service, or cloud computing model used; however, it is not one of the core cloud components.

**NEW QUESTION 328**

- (Exam Topic 3)

Which of the following statements best describes a Type 1 hypervisor?

- A. The hypervisor software runs within an operating system tied to the hardware.
- B. The hypervisor software runs as a client on a server and needs an external service to administer it.
- C. The hypervisor software runs on top of an application layer.
- D. The hypervisor software runs directly on "bare metal" without an intermediary.

**Answer:** D

**Explanation:**

With a Type 1 hypervisor, the hypervisor software runs directly on top of the bare-metal system, without any intermediary layer or hosting system. None of these statements describes a Type 1 hypervisor.

**NEW QUESTION 329**

- (Exam Topic 3)

In the wake of many scandals with major corporations involving fraud and the deception of investors and regulators, which of the following laws was passed to govern accounting and financial records and disclosures?

- A. GLBA
- B. Safe Harbor
- C. HIPAA
- D. SOX

**Answer:** D

**Explanation:**

The Sarbanes-Oxley Act (SOX) regulates the financial and accounting practices used by organizations in order to protect shareholders from improper practices and accounting errors. The Health Insurance Portability and Accountability Act (HIPAA) pertains to the protection of patient medical records and privacy. The Gramm-Leach-Bliley Act (GLBA) focuses on the use of PII within financial institutions. The Safe Harbor program was designed by the US government as a way for American companies to comply with European Union privacy laws.

**NEW QUESTION 334**

- (Exam Topic 3)

Within an IaaS implementation, which of the following would NOT be a metric used to quantify service charges for the cloud customer?

- A. Memory
- B. Number of users
- C. Storage
- D. CPU

**Answer:** B

**Explanation:**



Within IaaS, where the cloud customer is responsible for everything beyond the physical network, the number of users on a system would not be a factor in billing or service charges. The core cloud services for IaaS are based on the memory, storage, and CPU requirements of the cloud customer. Because the cloud customer with IaaS is responsible for its own images and deployments, these components comprise the basis of its cloud provisioning and measured services billing.

**NEW QUESTION 337**

- (Exam Topic 3)

Which data state would be most likely to use TLS as a protection mechanism?

- A. Data in use
- B. Data at rest
- C. Archived
- D. Data in transit

**Answer:** D

**Explanation:**

TLS would be used with data in transit, when packets are exchanged between clients or services and sent across a network. During the data-in-use state, the data is already protected via a technology such as TLS as it is exchanged over the network and then relies on other technologies such as digital signatures for protection while being used. The data-at-rest state primarily uses encryption for stored file objects. Archived data would be the same as data at rest.

**NEW QUESTION 342**

4 to 80.6 degrees Fahrenheit (or 18 to 27 degrees Celsius) as the optimal temperature range for data centers. None of these options is the recommendation from ASHRAE.

- A. Mastered
- B. Not Mastered

**Answer:** A

**NEW QUESTION 344**

- (Exam Topic 3)

From a security perspective, what component of a cloud computing infrastructure represents the biggest concern?

- A. Hypervisor
- B. Management plane
- C. Object storage
- D. Encryption

**Answer:** B

**Explanation:**

The management plane will have broad administrative access to all host systems throughout an environment; as such, it represents the most pressing security concerns. A compromise of the management plane can directly lead to compromises of any other systems within the environment. Although hypervisors represent a significant security concern to an environment because their compromise would expose any virtual systems hosted within them, the management plane is a better choice in this case because it controls multiple hypervisors. Encryption and object storage both represent lower-level security concerns.

**NEW QUESTION 346**

- (Exam Topic 3)

Along with humidity, temperature is crucial to a data center for optimal operations and protection of equipment. Which of the following is the optimal temperature range as set by ASHRAE?

- A. 69.8 to 86.0 degrees Fahrenheit (21 to 30 degrees Celsius)
- B. 51.8 to 66.2 degrees Fahrenheit (11 to 19 degrees Celsius)
- C. 64.4 to 80.6 degrees Fahrenheit (18 to 27 degrees Celsius)
- D. 44.6 to 60.8 degrees Fahrenheit (7 to 16 degrees Celsius)

**Answer:** C

**Explanation:**

The American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) recommends

**NEW QUESTION 347**

- (Exam Topic 3)

There is a large gap between the privacy laws of the United States and those of the European Union. Bridging this gap is necessary for American companies to do business with European companies and in European markets in many situations, as the American companies are required to comply with the stricter requirements. Which US program was designed to help companies overcome these differences?

- A. SOX
- B. HIPAA
- C. GLBA
- D. Safe Harbor

**Answer:** D

**Explanation:**

The Safe Harbor regulations were developed by the Department of Commerce and are meant to serve as a way to bridge the gap between privacy regulations of

the European Union and the United States. Due to the lack of adequate privacy laws and protection on the federal level in the US, European privacy regulations generally prohibit the exporting of PII from Europe to the United States. Participation in the Safe Harbor program is voluntary on the part of US organizations. These organizations must conform to specific requirements and policies that mirror those from the EU, thus possibly fulfilling the EU requirements for data sharing and export. This way, American businesses can be allowed to serve customers in the EU. The Health Insurance Portability and Accountability Act (HIPAA) pertains to the protection of patient medical records and privacy. The Gramm-Leach-Bliley Act (GLBA) focuses on the use of PII within financial institutions. The Sarbanes-Oxley Act (SOX) regulates the financial and accounting practices used by organizations in order to protect shareholders from improper practices and errors.

**NEW QUESTION 352**

- (Exam Topic 3)

Which of the following threat types involves leveraging a user's browser to send untrusted data to be executed with legitimate access via the user's valid credentials?

- A. Injection
- B. Missing function-level access control
- C. Cross-site scripting
- D. Cross-site request forgery

**Answer:** D

**Explanation:**

Cross-site scripting (XSS) is an attack where a malicious actor is able to send untrusted data to a user's browser without going through any validation or sanitization processes, or perhaps the code is not properly escaped from processing by the browser. The code is then executed on the user's browser with their own access and permissions, allowing the attacker to redirect the user's web traffic, steal data from their session, or potentially access information on the user's own computer that their browser has the ability to access. Missing function-level access control exists where an application only checks for authorization during the initial login process and does not further validate with each function call. An injection attack is where a malicious actor sends commands or other arbitrary data through input and data fields with the intent of having the application or system execute the code as part of its normal processing and queries. Cross-site request forgery occurs when an attack forces an authenticated user to send forged requests to an application running under their own access and credentials.

**NEW QUESTION 354**

- (Exam Topic 3)

The share phase of the cloud data lifecycle involves allowing data to leave the application, to be shared with external systems, services, or even other vendors/contractors.

What technology would be useful for protecting data at this point?

- A. IDS
- B. DLP
- C. IPS
- D. WAF

**Answer:** B

**Explanation:**

Data loss prevention (DLP) solutions allow for control of data outside of the application or original system. They can enforce granular control such as printing, copying, and being read by others, as well as forcing expiration of access. Intrusion detection system (IDS) and intrusion prevention system (IPS) solutions are used for detecting and blocking suspicious and malicious traffic, respectively, whereas a web application firewall (WAF) is used for enforcing security or other controls on web-based applications.

**NEW QUESTION 355**

- (Exam Topic 3)

With IaaS, what is responsible for handling the security and control over the volume storage space?

- A. Management plane
- B. Operating system
- C. Application
- D. Hypervisor

**Answer:** B

**Explanation:**

Volume storage is allocated via a LUN to a system and then treated the same as any traditional storage. The operating system is responsible for formatting and securing volume storage as well as controlling all access to it. Applications, although they may use volume storage and have permissions to write to it, are not responsible for its formatting and security. Both a hypervisor and the management plane are outside of an individual system and are not responsible for managing the files and storage within that system.

**NEW QUESTION 358**

- (Exam Topic 3)

What type of storage structure does object storage employ to maintain files?

- A. Directory
- B. Hierarchical
- C. tree
- D. Flat

**Answer:** D

**Explanation:**

Object storage uses a flat file system to hold storage objects; it assigns files a key value that is then used to access them, rather than relying on directories or descriptive filenames. Typical storage layouts such as tree, directory, and hierarchical structures are used within volume storage, whereas object storage maintains a flat structure with key values.

#### NEW QUESTION 363

- (Exam Topic 3)

In order to comply with regulatory requirements, which of the following secure erasure methods would be available to a cloud customer using volume storage within the IaaS service model?

- A. Demagnetizing
- B. Shredding
- C. Degaussing
- D. Cryptographic erasure

**Answer: D**

#### Explanation:

Cryptographic erasure is a secure method to destroy data by destroying the keys that were used to encrypt it. This method is universally available for volume storage on IaaS and is also extremely quick. Shredding, degaussing, and demagnetizing are all physically destructive methods that would not be permitted within a cloud environment using shared resources.

#### NEW QUESTION 364

- (Exam Topic 3)

Three central concepts define what type of data and information an organization is responsible for pertaining to eDiscovery.

Which of the following are the three components that comprise required disclosure?

- A. Possession, ownership, control
- B. Ownership, use, creation
- C. Control, custody, use
- D. Possession, custody, control

**Answer: D**

#### Explanation:

Data that falls under the purview of an eDiscovery request is that which is in the possession, custody, or control of the organization. Although this is an easy concept in a traditional data center, it can be difficult to distinguish who actually possesses and controls the data in a cloud environment due to multitenancy and resource pooling. Although these options provide similar-sounding terms, they are ultimately incorrect.

#### NEW QUESTION 365

- (Exam Topic 3)

One of the main components of system audits is the ability to track changes over time and to match these changes with continued compliance and internal processes.

Which aspect of cloud computing makes this particular component more challenging than in a traditional data center?

- A. Portability
- B. Virtualization
- C. Elasticity
- D. Resource pooling

**Answer: B**

#### Explanation:

Cloud services make exclusive use of virtualization, and systems change over time, including the addition, subtraction, and reimaging of virtual machines. It is extremely unlikely that the exact same virtual machines and images used in a previous audit would still be in use or even available for a later audit, making the tracking of changes over time extremely difficult, or even impossible. Elasticity refers to the ability to add and remove resources from a system or service to meet current demand, and although it plays a factor in making the tracking of virtual machines very difficult over time, it is not the best answer in this case. Resource pooling pertains to a cloud environment sharing a large amount of resources between different customers and services. Portability refers to the ability to move systems or services easily between different cloud providers.

#### NEW QUESTION 369

- (Exam Topic 3)

Data center and operations design traditionally takes a tiered, topological approach.

Which of the following standards is focused on that approach and is prevalently used throughout the industry?

- A. IDCA
- B. NFPA
- C. BICSI
- D. Uptime Institute

**Answer: D**

#### Explanation:

The Uptime Institute publishes the most widely known and used standard for data center topologies and tiers. The National Fire Protection Association (NFPA) publishes a broad range of fire safety and design standards for many different types of facilities. Building Industry Consulting Services International (BICSI) issues certifications for data center cabling. The International Data Center Authority (IDCA) offers the Infinity Paradigm, which takes a macro-level approach to data center design.

#### NEW QUESTION 371

- (Exam Topic 3)

Digital investigations have adopted many of the same methodologies and protocols as other types of criminal or scientific inquiries.

What term pertains to the application of scientific norms and protocols to digital investigations?

- A. Scientific
- B. Investigative
- C. Methodological
- D. Forensics

**Answer:** D

**Explanation:**

Forensics refers to the application of scientific methods and protocols to the investigation of crimes. Although forensics has traditionally been applied to well-known criminal proceedings and investigations, the term equally applies to digital investigations and methods. Although the other answers provide similar-sounding terms and ideas, none is the appropriate answer in this case.

**NEW QUESTION 375**

- (Exam Topic 3)

ISO/IEC has established international standards for many aspects of computing and any processes or procedures related to information technology. Which ISO/IEC standard has been established to provide a framework for handling eDiscovery processes?

- A. ISO/IEC 27001
- B. ISO/IEC 27002
- C. ISO/IEC 27040
- D. ISO/IEC 27050

**Answer:** D

**Explanation:**

ISO/IEC 27050 strives to establish an internationally accepted standard for eDiscovery processes and best practices. It encompasses all steps of the eDiscovery process, including the identification, preservation, collection, processing, review, analysis, and the final production of the requested data archive. ISO/IEC 27001 is a general security specification for an information security management system. ISO/IEC 27002 gives best practice recommendations for information security management. ISO/IEC 27040 is focused on the security of storage systems.

**NEW QUESTION 376**

- (Exam Topic 3)

Humidity levels for a data center are a prime concern for maintaining electrical and computing resources properly as well as ensuring that conditions are optimal for top performance.

Which of the following is the optimal humidity level, as established by ASHRAE?

- A. 20 to 40 percent relative humidity
- B. 50 to 75 percent relative humidity
- C. 40 to 60 percent relative humidity
- D. 30 to 50 percent relative humidity

**Answer:** C

**Explanation:**

The American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) recommends 40 to 60 percent relative humidity for data centers. None of these options is the recommendation from ASHRAE.

**NEW QUESTION 378**

- (Exam Topic 3)

Different types of audits are intended for different audiences, such as internal, external, regulatory, and so on. Which of the following audits are considered "restricted use" versus being for a more broad audience?

- A. SOC Type 2
- B. SOC Type 1
- C. SOC Type 3
- D. SAS-70

**Answer:** B

**Explanation:**

SOC Type 1 reports are intended for restricted use, only to be seen by the actual service organization, its current clients, or its auditors. These reports are not intended for wider or public distribution. SAS-70 audit reports have been deprecated and are no longer in use, and both the SOC Type 2 and 3 reports are designed to expand upon the SOC Type 1 reports and are for broader audiences.

**NEW QUESTION 382**

- (Exam Topic 3)

You were recently hired as a project manager at a major university to implement cloud services for the academic and administrative systems. Because the load and demand for services at a university are very cyclical in nature, commensurate with the academic calendar, which of the following aspects of cloud computing would NOT be a primary benefit to you?

- A. Measured service
- B. Broad network access
- C. Resource pooling
- D. On-demand self-service

**Answer:** B

**Explanation:**

Broad network access to cloud services, although it is an integral aspect of cloud computing, would not being a specific benefit to an organization with cyclical business needs. The other options would allow for lower costs during periods of low usage as well as provide the ability to expand services quickly and easily when needed for peak periods. Measured service allows a cloud customer to only use the resources it needs at the time, and resource pooling allows a cloud customer to access resources as needed. On-demand self-service enables the cloud customer to change its provisioned resources on its own, without the need to interact with the staff from the cloud provider.

**NEW QUESTION 386**

- (Exam Topic 3)

You just hired an outside developer to modernize some applications with new web services and functionality. In order to implement a comprehensive test platform for validation, the developer needs a data set that resembles a production data set in both size and composition.

In order to accomplish this, what type of masking would you use?

- A. Development
- B. Replicated
- C. Static
- D. Dynamic

**Answer:** C

**Explanation:**

Static masking takes a data set and produces a copy of it, but with sensitive data fields masked. This allows for a full data set from production for testing purposes, but without any sensitive data. Dynamic masking works with a live system and is not used to produce a distinct copy. The terms "replicated" and "development" are not types of masking.

**NEW QUESTION 390**

- (Exam Topic 3)

Different certifications and standards take different approaches to data center design and operations. Although many traditional approaches use a tiered methodology, which of the following utilizes a macro-level approach to data center design?

- A. IDCA
- B. BICSI
- C. Uptime Institute
- D. NFPA

**Answer:** A

**Explanation:**

The Infinity Paradigm of the International Data Center Authority (IDCA) takes a macro-level approach to data center design. The IDCA does not use a specific, focused approach on specific components to achieve tier status. Building Industry Consulting Services International (BICSI) issues certifications for data center cabling. The National Fire Protection Association (NFPA) publishes a broad range of fire safety and design standards for many different types of facilities. The Uptime Institute publishes the most widely known and used standard for data center topologies and tiers.

**NEW QUESTION 393**

- (Exam Topic 3)

Implementing baselines on systems would take an enormous amount of time and resources if the staff had to apply them to each server, and over time, it would be almost impossible to keep all the systems in sync on an ongoing basis.

Which of the following is NOT a package that can be used for implementing and maintaining baselines across an enterprise?

- A. Puppet
- B. SCCM
- C. Chef
- D. GitHub

**Answer:** D

**Explanation:**

GitHub is a software development platform that serves as a code repository and versioning system. It is solely used for software development and would not be appropriate for applying baselines to systems. Puppet is an open-source configuration management tool that runs on many platforms and can be used to apply and maintain baselines. The Software Center Configuration Manager (SCCM) was developed by Microsoft for managing systems across large groups of servers. Chef is also a system for maintaining large groups of systems throughout an enterprise.

**NEW QUESTION 398**

- (Exam Topic 3)

With an API, various features and optimizations are highly desirable to scalability, reliability, and security. What does the REST API support that the SOAP API does NOT support?

- A. Acceleration
- B. Caching
- C. Redundancy
- D. Encryption

**Answer:** B

**Explanation:**

The Simple Object Access Protocol (SOAP) does not support caching, whereas the Representational State Transfer (REST) API does. The other options are all capabilities that are either not supported by SOAP or not supported by any API and must be provided by external features.

**NEW QUESTION 399**



- (Exam Topic 3)

Many tools and technologies are available for securing or monitoring data in transit within a data center, whether it is a traditional data center or a cloud. Which of the following is NOT a technology for securing data in transit?

- A. VPN
- B. TLS
- C. DNSSEC
- D. HTTPS

**Answer:** C

**Explanation:**

DNSSEC is an extension of the normal DNS protocol that enables a system to verify the integrity of a DNS query resolution by signing it from the authoritative source and verifying the signing chain. It is not used for securing data transmissions or exchanges. HTTPS is the most common method for securing web service and data calls within a cloud, and TLS is the current standard for encrypting HTTPS traffic. VPNs are widely used for securing data transmissions and service access.

**NEW QUESTION 401**

- (Exam Topic 3)

The management plane is used to administer a cloud environment and perform administrative tasks across a variety of systems, but most specifically it's used with the hypervisors.

What does the management plane typically leverage for this orchestration?

- A. APIs
- B. Scripts
- C. TLS
- D. XML

**Answer:** A

**Explanation:**

The management plane uses APIs to execute remote calls across the cloud environment to various management systems, especially hypervisors. This allows a centralized administrative interface, often a web portal, to orchestrate tasks throughout an enterprise. Scripts may be utilized to execute API calls, but they are not used directly to interact with systems. XML is used for data encoding and transmission, but not for executing remote calls. TLS is used to encrypt communications and may be used with API calls, but it is not the actual process for executing commands.

**NEW QUESTION 404**

- (Exam Topic 3)

Which phase of the cloud data lifecycle would be the MOST appropriate for the use of DLP technologies to protect the data?

- A. Use
- B. Store
- C. Share
- D. Create

**Answer:** C

**Explanation:**

During the share phase, data is allowed to leave the application for consumption by other vendors, systems, or services. At this point, as the data is leaving the security controls of the application, the use of DLP technologies is appropriate to control how the data is used or to force expiration. During the use, create, and store phases, traditional security controls are available and are more appropriate because the data is still internal to the application.

**NEW QUESTION 406**

- (Exam Topic 3)

From the perspective of compliance, what is the most important consideration when it comes to data center location?

- A. Natural disasters
- B. Utility access
- C. Jurisdiction
- D. Personnel access

**Answer:** C

**Explanation:**

Jurisdiction will dictate much of the compliance and audit requirements for a data center. Although all the aspects listed are very important to security, from a strict compliance perspective, jurisdiction is the most important. Personnel access, natural disasters, and utility access are all important operational considerations for selecting a data center location, but they are not related to compliance issues like jurisdiction is.

**NEW QUESTION 407**

- (Exam Topic 3)

Which phase of the cloud data lifecycle represents the first instance where security controls can be implemented?

- A. Use
- B. Share
- C. Store
- D. Create

**Answer:** C



**Explanation:**

The store phase occurs immediately after the create phase, and as data is committed to storage structures, the first opportunity for security controls to be implemented is realized. During the create phase, the data is not yet part of a system where security controls can be applied, and although the use and share phases also entail the application of security controls, they are not the first phase where the process occurs.

**NEW QUESTION 411**

- (Exam Topic 3)

In order to ensure ongoing compliance with regulatory requirements, which phase of the cloud data lifecycle must be tested regularly?

- A. Archive
- B. Share
- C. Store
- D. Destroy

**Answer:** A

**Explanation:**

In order to ensure compliance with regulations, it is important for an organization to regularly test the restorability of archived data. As technologies change and older systems are deprecated, the risk rises for an organization to lose the ability to restore data from the format in which it is stored. With the destroy, store, and share phases, the currently used technologies will be sufficient for an organization's needs in an ongoing basis, so the risk that is elevated with archived data is not present.

**NEW QUESTION 412**

- (Exam Topic 2)

Which of the following is a widely used tool for code development, branching, and collaboration?

- A. GitHub
- B. Maestro
- C. Orchestrator
- D. Conductor

**Answer:** A

**Explanation:**

GitHub is an open source tool that developers leverage for code collaboration, branching, and versioning.

**NEW QUESTION 415**

- (Exam Topic 2)

Which OSI layer does IPsec operate at?

- A. Network
- B. transport
- C. Application
- D. Presentation

**Answer:** A

**Explanation:**

A major difference between IPsec and other protocols such as TLS is that IPsec operates at the Internet network layer rather than the application layer, allowing for complete end-to-end encryption of all communications and traffic.

**NEW QUESTION 417**

- (Exam Topic 2)

Which of the following is NOT a domain of the Cloud Controls Matrix (CCM)?

- A. Data center security
- B. Human resources
- C. Mobile security
- D. Budgetary and cost controls

**Answer:** D

**Explanation:**

Budgetary and cost controls is not one of the domains outlined in the CCM.

**NEW QUESTION 421**

- (Exam Topic 2)

What changes are necessary to application code in order to implement DNSSEC?

- A. Adding encryption modules
- B. Implementing certificate validations
- C. Additional DNS lookups
- D. No changes are needed.

**Answer:** D

**Explanation:**

To implement DNSSEC, no additional changes are needed to applications or their code because the integrity checks are all performed at the system level.

#### NEW QUESTION 423

- (Exam Topic 2)

Which of the following is NOT a function performed by the handshake protocol of TLS?

- A. Key exchange
- B. Encryption
- C. Negotiation of connection
- D. Establish session ID

**Answer:** B

#### Explanation:

The handshake protocol negotiates and establishes the connection as well as handles the key exchange and establishes the session ID. It does not perform the actual encryption of data packets.

#### NEW QUESTION 426

- (Exam Topic 2)

Which aspect of cloud computing makes it very difficult to perform repeat audits over time to track changes and compliance?

- A. Virtualization
- B. Multitenancy
- C. Resource pooling
- D. Dynamic optimization

**Answer:** A

#### Explanation:

Cloud environments will regularly change virtual machines as patching and versions are changed. Unlike a physical environment, there is little continuity from one period of time to another. It is very unlikely that the same virtual machines would be in use during a repeat audit.

#### NEW QUESTION 427

- (Exam Topic 2)

Which type of audit report is considered a "restricted use" report for its intended audience?

- A. SAS-70
- B. SSAE-16
- C. SOC Type 1
- D. SOC Type 2

**Answer:** C

#### Explanation:

SOC Type 1 reports are considered "restricted use" reports. They are intended for management and stakeholders of an organization, clients of the service organization, and auditors of the organization. They are not intended for release beyond those audiences.

#### NEW QUESTION 431

- (Exam Topic 2)

Which of the following is NOT a key area for performance monitoring as far as an SLA is concerned?

- A. CPU
- B. Users
- C. Memory
- D. Network

**Answer:** B

#### Explanation:

An SLA requires performance monitoring of CPU, memory, storage, and networking. The number of users active on a system would not be part of an SLA specifically, other than in regard to the impact on the other four variables.

#### NEW QUESTION 434

- (Exam Topic 2)

Which of the cloud deployment models offers the easiest initial setup and access for the cloud customer?

- A. Hybrid
- B. Community
- C. Private
- D. Public

**Answer:** D

#### Explanation:

Because the public cloud model is available to everyone, in most instances all a customer will need to do to gain access is set up an account and provide a credit card number through the service's web portal. No additional contract negotiations, agreements, or specific group memberships are typically needed to get started.

#### NEW QUESTION 438

- (Exam Topic 2)

Which of the following does NOT fall under the "IT" aspect of quality of service (QoS)?

- A. Applications
- B. Key performance indicators (KPIs)
- C. Services
- D. Security

**Answer: B**

**Explanation:**

KPIs fall under the "business" aspect of QoS, along with monitoring and measuring of events and business processes. Services, security, and applications are all core components and concepts of the "IT" aspect of QoS.

#### NEW QUESTION 441

- (Exam Topic 2)

Which process serves to prove the identity and credentials of a user requesting access to an application or data?

- A. Repudiation
- B. Authentication
- C. Identification
- D. Authorization

**Answer: B**

**Explanation:**

Authentication is the process of proving whether the identity presented by a user is true and valid. This can be done through common mechanisms such as user ID and password combinations or with more secure methods such as multifactor authentication.

#### NEW QUESTION 442

- (Exam Topic 2)

What does dynamic application security testing (DAST) NOT entail?

- A. Scanning
- B. Probing
- C. Discovery
- D. Knowledge of the system

**Answer: D**

**Explanation:**

Dynamic application security testing (DAST) is considered "black box" testing and begins with no inside knowledge of the application or its configurations. Everything about the application must be discovered during the testing.

#### NEW QUESTION 443

- (Exam Topic 2)

Which value refers to the amount of data an organization would need to recover in the event of a BCDR situation in order to reach an acceptable level of operations?

- A. SRE
- B. RTO
- C. RPO
- D. RSL

**Answer: C**

**Explanation:**

The recovery point objective (RPO) is defined as the amount of data a company would need to maintain and recover in order to function at a level acceptable to management. This may or may not be a restoration to full operating capacity, depending on what management deems as crucial and essential.

#### NEW QUESTION 447

- (Exam Topic 2)

Which value refers to the amount of time it takes to recover operations in a BCDR situation to meet management's objectives?

- A. RSL
- B. RPO
- C. SRE
- D. RTO

**Answer: D**

**Explanation:**

The recovery time objective (RTO) is a measure of the amount of time it would take to recover operations in the event of a disaster to the point where management's objectives are met for BCDR.

#### NEW QUESTION 448

- (Exam Topic 2)

Which approach is typically the most efficient method to use for data discovery?

- A. Metadata
- B. Content analysis
- C. Labels
- D. ACLs

**Answer:** A

**Explanation:**

Metadata is data about data. It contains information about the type of data, how it is stored and organized, or information about its creation and use.

**NEW QUESTION 453**

- (Exam Topic 2)

What concept does the "T" represent in the STRIDE threat model?

- A. TLS
- B. Testing
- C. Tampering with data
- D. Transport

**Answer:** C

**Explanation:**

Any application that sends data to the user will face the potential that the user could manipulate or alter the data, whether it resides in cookies, GET or POST commands, or headers, or manipulates client-side validations. If the user receives data from the application, it is crucial that the application validate and verify any data that is received back from the user.

**NEW QUESTION 456**

- (Exam Topic 2)

Which of the cloud deployment models requires the cloud customer to be part of a specific group or organization in order to host cloud services within it?

- A. Community
- B. Hybrid
- C. Private
- D. Public

**Answer:** A

**Explanation:**

A community cloud model is where customers that share a certain common bond or group membership come together to offer cloud services to their members, focused on common goals and interests.

**NEW QUESTION 457**

- (Exam Topic 2)

Which of the following is a commonly used tool for maintaining system configurations?

- A. Maestro
- B. Orchestrator
- C. Puppet
- D. Conductor

**Answer:** C

**Explanation:**

Puppet is a commonly used tool for maintaining system configurations based on policies, and done so from a centralized authority.

**NEW QUESTION 461**

- (Exam Topic 2)

Which of the following is the sole responsibility of the cloud customer, regardless of which cloud model is used?

- A. Platform
- B. Infrastructure
- C. Governance
- D. Application

**Answer:** C

**Explanation:**

Regardless of which cloud-hosting model is used, the cloud customer always has sole responsibility for the governance of systems and data.

**NEW QUESTION 464**

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