Answer Sheet

Q1) Which is an operational process performed by AWS for data security?

- Replication of data across multiple AWS regions
- Background virus scans of Amazon Elastic Block Store (Amazon EBS) volumes and Amazon EBS snapshots
- ✅ Decommissioning of storage devices using industry-standard practices

Explanation:-All decommissioned magnetic storage devices are degaussed and physically destroyed in accordance with industry-standard practices.

- Advanced Encryption Standard (AES)-256 encryption of data stored on any shared storage device
- Secure wiping of Amazon EBS data when an Amazon EBS volume is unmounted

---

Q2)

You have launched a Windows Amazon Elastic Compute Cloud (Amazon EC2) instance and specified an Amazon EC2 key pair for the instance at launch.

Which of the following accurately describes how to log in to the instance?

- ✅ Use the Amazon EC2 key pair to decrypt the administrator password and then securely connect to the instance via Remote Desktop Protocol (RDP) as the administrator.

Explanation:-The administrator password is encrypted with the public key of the key pair, and you provide the private key to decrypt the password. Then log in to the instance as the administrator with the decrypted password.

- Use your AWS Identity and Access Management (IAM) user X.509 certificate to log in to the instance.
- Use the Amazon EC2 key pair to securely connect to the instance via Secure Shell (SSH).
- A key pair is not neededSecurely connect to the instance via RDP.

Q3) A Database security group controls network access to a database instance that is inside a Virtual Private Cloud (VPC) and by default allows access from?

- Access for the database connection string is provided by default in the DB security group.
- Access from any IP address for any port is provided by default in the DB security group.
- ✅ No access is provided by default, and any access must be explicitly added with a rule to the DB security group.

Explanation:-By default, network access is turned off to a DB Instance. You can specify rules in a security group that allows access from an IP address range, port, or Amazon Elastic Compute Cloud (Amazon EC2) security group.

- Access from any IP address for the standard ports that the database uses is provided by default.

Q4) Which encryption algorithm is used by Amazon Simple Storage Service (Amazon S3) to encrypt data at rest with Service-Side Encryption (SSE)?

- RSA 1024
- ✅ Advanced Encryption Standard (AES)-256

Explanation:-Amazon S3 SSE uses one of the strongest block ciphers available, 256-bit AES.

- RSA 2048
- AES-128

Q5) How many access keys may an AWS Identity and Access Management (IAM) user have active at one time?

- 1
- ✅ 2

Explanation:-IAM permits users to have no more than two active access keys at one time.

- ZERO
- 3

Q6) Which of the following is the name of the security model employed by AWS with its customers?

- The shared secret key model
- ✅ The shared responsibility model

Explanation:-The shared responsibility model is the name of the model employed by AWS with its customers.

- The shared secret model
- The secret key responsibility model

Q7) Which of the following describes the scheme used by an Amazon Redshift cluster leveraging AWS Key Management Service (AWS KMS) to encrypt data-at-rest?

- ✅ Amazon Redshift uses a four-tier, key-based architecture for encryption.

Explanation:-When you choose AWS KMS for key management with Amazon Redshift, there is a four-tier hierarchy of encryption keys. These keys are the master key, a cluster key, a database key, and data encryption keys.

- Amazon Redshift uses a three-tier, key-based architecture for encryption.
- Amazon Redshift uses a two-tier, key-based architecture for encryption.
- Amazon Redshift uses a one-tier, key-based architecture for encryption.

Q8) Which of the following Elastic Load Balancing options ensure that the load balancer determines which cipher is used for a Secure Sockets Layer (SSL) connection?

- Client Server Cipher Suite
- Server Cipher Only
- First Server Cipher
- ✅ Server Order Preference

Explanation:-Elastic Load Balancing supports the Server Order Preference option for negotiating connections between a client and a load balancer. During the SSL connection negotiation process, the client and the load balancer present a list of ciphers and protocols that they each support, in order of preference. By default, the first cipher on the client's list that matches any one of the load balancer's ciphers is selected for the SSL connection. If the load balancer is configured to support Server Order Pr

Q9) Which technology does Amazon WorkSpaces use to provide data security?

- ✅ PC-over-IP (PCoIP)

Explanation:-Amazon WorkSpaces uses PCoIP, which provides an interactive video stream without transmitting actual data.
- Advanced Encryption Standard (AES)-256
- Secure Sockets Layer (SSL)/Transport Layer Security (TLS)
- AES-128

Q10) As a Solutions Architect, how should you architect systems on AWS?

- You should architect with Amazon Elastic Compute Cloud (Amazon EC2) Auto Scaling to ensure capacity is available when needed.
- ✅ You should architect your AWS usage to take advantage of multiple regions and Availability Zones.

Explanation:-Distributing applications across multiple Availability Zones provides the ability to remain resilient in the face of most failure modes, including natural disasters or system failures.
- You should architect for least cost.
- You should architect your AWS usage to take advantage of Amazon Simple Storage Service's (Amazon S3) durability.

Q11) Which security scheme is used by the AWS Multi-Factor Authentication (AWS MFA) token?

- Ephemeral Diffie Hellman (EDH)
- Perfect Forward Secrecy (PFC)
- ✅ Time-Based One-Time Password (TOTP)

Explanation:-A virtual MFA device uses a software application that generates six-digit authentication codes that are compatible with the TOTP standard, as described in RFC 6238.
- Split-Key Encryption (SKE)

Q12) DynamoDB tables may contain sensitive data that needs to be protected. Which of the following is a way for you to protect DynamoDB table content? (Choose 2 answers)

- DynamoDB should not be used to store sensitive information requiring protection.
- ✅ DynamoDB can be used with the AWS Key Management Service to encrypt the data before storing the data in DynamoDB.

Explanation:-Amazon DynamoDB does not have a server-side feature to encrypt items within a table. You need to use a solution outside of DynamoDB such as a client-side library to encrypt items before storing them, or a key management service like AWS Key Management Service to manage keys that are used to encrypt items before storing them in DynamoDB.
- DynamoDB obfuscates all data stored so encryption is not required.
- ✅ DynamoDB can store data encrypted with a client-side encryption library solution

Explanation:-Amazon DynamoDB does not have a server-side feature to encrypt items within a table. You need to use a solution outside of DynamoDB such as a client-side library to encrypt items before storing them, or a key management service like AWS Key Management Service to manage keys that are used to encrypt items before storing them in DynamoDB.
- DynamoDB encrypts all data server-side by default so nothing is required.

Q13)

You have launched an Amazon Linux Elastic Compute Cloud (Amazon EC2) instance into EC2-Classic, and the instance has successfully passed the System Status Check and Instance Status Check. You attempt to securely connect to the instance via Secure Shell (SSH) and receive the response, "WARNING: UNPROTECTED PRIVATE KEY FILE," after which the login fails.

Which of the following is the cause of the failed login?

- A security group rule is blocking the connection.
- ✅ The permissions for the private key are too insecure for the key to be trusted.

Explanation:-If your private key can be read or written to by anyone but you, then SSH ignores your key.
- You are using the wrong private key.
- A security group rule has not been associated with the private key.

Q14) Which of the following public identity providers are supported by Amazon Cognito Identity?

- Amazon
- Google
- Facebook
- ✅ All of the above

Explanation:-Amazon Cognito Identity supports public identity providers—Amazon, Facebook, and Google—as well as unauthenticated identities.

Q15) Which feature of AWS is designed to permit calls to the platform from an Amazon Elastic Compute Cloud (Amazon EC2) instance without needing access keys placed on the instance?

- IAM roles

- IAM groups
- ✅ AWS Identity and Access Management (IAM) instance profile

Explanation:-An instance profile is a container for an IAM role that you can use to pass role information to an Amazon EC2 instance when the instance starts.

- Amazon EC2 key pairs

Q16) Which of the following Amazon Virtual Private Cloud (Amazon VPC) elements acts as a stateless firewall?

- Network Address Translation (NAT) instance
- ✅ Network Access Control List (ACL)

Explanation:-A network ACL is an optional layer of security for your Amazon VPC that acts as a firewall for controlling traffic in and out of one or more subnets. You might set up network ACLs with rules similar to your security groups in order to add an additional layer of security to your Amazon VPC.

- Security group
- An Amazon VPC endpoint

Q17) Which of the following is the most recent version of the AWS digital signature calculation process?

- Signature Version 1
- Signature Version 2
- Signature Version 3
- ✅ Signature Version 4

Explanation:-The Signature Version 4 signing process describes how to add authentication information to AWS requests. For security, most requests to AWS must be signed with an access key (Access Key ID [AKI] and Secret Access Key [SAK]). If you use the AWS Command Line Interface (AWS CLI) or one of the AWS Software Development Kits (SDKs), those tools automatically sign requests for you based on credentials that you specify when you configure the tools. However, if you make direct HTTP or HTTPS calls to AWS,

---

Q18) Which of the following is the name of the feature within Amazon Virtual Private Cloud (Amazon VPC) that allows you to launch Amazon Elastic Compute Cloud (Amazon EC2) instances on hardware dedicated to a single customer?

- Default tenancy
- ✅ Dedicated tenancy

Explanation:-Dedicated instances are physically isolated at the host hardware level from your instances that aren't dedicated instances and from instances that belong to other AWS accounts.

- Amazon VPC-based tenancy
- Host-based tenancy

Q19) Which of the following describes how Amazon Elastic MapReduce (Amazon EMR) protects access to the cluster?

- The master node and slave nodes are launched into a security group that allows SSH and service access.
- The master node supports a Virtual Private Network (VPN) connection from the key specified at cluster launch.
- ✅ The master node is launched into a security group that allows Secure Shell (SSH) and service access, while the slave nodes are launched into a separate security group that only permits communication with the master node.

Explanation:-Amazon EMR starts your instances in two Amazon Elastic Compute Cloud (Amazon EC2) security groups, one for the master and another for the slaves. The master security group has a port open for communication with the service. It also has the SSH port open to allow you to securely connect to the instances via SSH using the key specified at startup. The slaves start in a separate security group, which only allows interaction with the master instance.

- The master node and the slave nodes are launched into an Amazon Virtual Private Cloud (Amazon VPC).

Q20) To help prevent data loss due to the failure of any single hardware component, Amazon Elastic Block Storage (Amazon EBS) automatically replicates EBS volume data to which of the following?

- Amazon EBS replicates EBS volume data across Availability Zones in the same region and in Availability Zones in every other region.
- Amazon EBS replicates EBS volume data across Availability Zones in the same region and in Availability Zones in one other region.
- Amazon EBS replicates EBS volume data across other Availability Zones within the same region.
- ✅ Amazon EBS replicates EBS volume data within the same Availability Zone in a region.

Explanation:-When you create an Amazon EBS volume in an Availability Zone, it is automatically replicated within that Availability Zone to prevent data loss due to failure of any single hardware component. An EBS Snapshot creates a copy of an EBS volume to Amazon S3 so that copies of the volume can reside in different Availability Zones within a region.

Q21) Which AWS database service is best suited for traditional Online Transaction Processing (OLTP)?

- Amazon Glacier
- ✅ Amazon Relational Database Service (Amazon RDS)

Explanation:-Amazon RDS is best suited for traditional OLTP transactions. Amazon Redshift, on the other hand, is designed for OLAP workloads. Amazon Glacier is designed for cold archival storage.

- Amazon Redshift
- Elastic Database

Q22) Which AWS database service is best suited for non-relational databases?

- ✅ Amazon DynamoDB

Explanation:-Amazon DynamoDB is best suited for non-relational databases. Amazon RDS and Amazon Redshift are both structured relational databases.

- Amazon Glacier

Q23)

You are a solutions architect working for a media company that hosts its website on AWS. Currently, there is a single Amazon Elastic Compute Cloud (Amazon EC2) Instance on AWS with MySQL installed locally to that Amazon EC2 Instance. You have been asked to make the company's production environment more resilient and to increase performance. You suggest that the company split out the MySQL database onto an Amazon RDS Instance with Multi-AZ enabled. This addresses the company's increased resiliency requirements. Now you need to suggest how you can increase performance. Ninety-nine percent of the company's end users are magazine subscribers who will be reading additional articles on the website, so only one percent of end users will need to write data to the site.

What should you suggest to increase performance?

◉ Migrate the MySQL database to Amazon Redshift to take advantage of columnar storage and maximize performance.
◉ Alter the connection string so that if a user is going to write data, it is written to the primary copy of the Multi-AZ database.
✅ Recommend that the company use read replicas, and distribute the traffic across multiple read replicas.
Explanation:-In this scenario, the best idea is to use read replicas to scale out the database and thus maximize read performance. When using Multi-AZ, the secondary database is not accessible and all reads and writes must go to the primary or any read replicas.
◉ Alter the connection string so that if a user is going to write data, it is written to the secondary copy of the Multi-AZ database.

Q24) Which AWS Cloud service is best suited for Online Analytics Processing (OLAP)?

◉ Amazon Relational Database Service (Amazon RDS)
✅ Amazon Redshift
Explanation:-Amazon Redshift is best suited for traditional OLAP transactions. While Amazon RDS can also be used for OLAP, Amazon Redshift is purpose-built as an OLAP data warehouse.
◉ Amazon Glacier
◉ Amazon DynamoDB

Q25)

You have been using Amazon Relational Database Service (Amazon RDS) for the last year to run an important application with automated backups enabled. One of your team members is performing routine maintenance and accidentally drops an important table, causing an outage.

How can you recover the missing data while minimizing the duration of the outage?

◉ Restore only the dropped table from the DB snapshot.
✅ Restore the database from a recent automated DB snapshot.
Explanation:-DB Snapshots can be used to restore a complete copy of the database at a specific point in time. Individual tables cannot be extracted from a snapshot.
◉ Perform an undo operation and recover the table.
◉ The data cannot be recovered.

Q26) Which Amazon Relational Database Service (Amazon RDS) database engines support Multi-AZ?

◉ Microsoft SQL Server, MySQL, and Oracle
✅ All of them
Explanation:-All Amazon RDS database engines support Multi-AZ deployment
◉ Oracle, Amazon Aurora, and PostgreSQL
◉ MySQL

Q27) Which Amazon Relational Database Service (Amazon RDS) database engines support read replicas?

◉ Aurora, Microsoft SQL Server, and Oracle
✅ MySQL, MariaDB, PostgreSQL, and Aurora
Explanation:-Read replicas are supported by MySQL, MariaDB, PostgreSQL, and Aurora.
◉ Microsoft SQL Server and Oracle
◉ MySQL and PostgreSQL

Q28)

Your team is building an order processing system that will span multiple Availability Zones. During testing, the team wanted to test how the application will react to a database failover.

How can you enable this type of test?

◉ Create a support case asking for a failover.
◉ Terminate the DB instance, and create a new one. Update the connection string.
✅ Force a Multi-AZ failover from one Availability Zone to another by rebooting the primary instance using the Amazon RDS console.
Explanation:-You can force a failover from one Availability Zone to another by rebooting the primary instance in the AWS Management Console. This is often how people test a failover in the real world. There is no need to create a support case.
◉ It is not possible to test a failover.

Q29)

You are a system administrator whose company has moved its production database to AWS. Your company monitors its estate

using Amazon CloudWatch, which sends alarms using Amazon Simple Notification Service (Amazon SNS) to your mobile phone. One night, you get an alert that your primary Amazon Relational Database Service (Amazon RDS) Instance has gone down. You have Multi-AZ enabled on this instance.

What should you do to ensure the failover happens quickly?

✅ No action is necessary. Your connection string points to the database endpoint, and AWS automatically updates this endpoint to point to your secondary instance.
Explanation:-Monitor the environment while Amazon RDS attempts to recover automatically. AWS will update the DB endpoint to point to the secondary instance automatically.

⚪ Take a snapshot of the secondary instance and create a new instance using this snapshot, then update your connection string to point to the new instance.

⚪ Connect to your server using Secure Shell (SSH) and update your connection strings so that your application can communicate to the secondary instance instead of the failed primary instance.

⚪ Update your Domain Name System (DNS) to point to the secondary instance's new IP address, forcing your application to fail over to the secondary instance.

Q30)

You are working for a small organization without a dedicated database administrator on staff. You need to install Microsoft SQL Server Enterprise edition quickly to support an accounting back office application on Amazon Relational Database Service (Amazon RDS).

What should you do?

⚪ You cannot use SQL Server Enterprise edition on Amazon RDS. You should install this on to a dedicated Amazon Elastic Compute Cloud (Amazon EC2) Instance.

⚪ SQL Server Enterprise edition is only available via the Command Line Interface (CLI). Install the command-line tools on your laptop, and then provision your new Amazon RDS Instance using the CLI.

⚪ Provision SQL Server Enterprise Edition using the License Included option from the Amazon RDS Console.

✅ Launch an Amazon RDS DB Instance, and select Microsoft SQL Server Enterprise Edition under the Bring Your Own License (BYOL) model.
Explanation:-Amazon RDS supports Microsoft SQL Server Enterprise edition and the license is available only under the BYOL model.

Q31) Which of the following describes a physical location around the world where AWS clusters data centers?

⚪ Endpoint
⚪ Collection
⚪ Fleet
✅ Region
Explanation:-A region is a named set of AWS resources in the same geographical area. A region comprises at least two Availability Zones. Endpoint, Collection, and Fleet do not describe a physical location around the world where AWS clusters data centers.

Q32) You are building the database tier for an enterprise application that gets occasional activity throughout the day. Which storage type should you select as your default option?

⚪ Provisioned IOPS (SSD)
✅ General Purpose Solid State Drive (SSD)
Explanation:-General Purpose (SSD) volumes are generally the right choice for databases that have bursts of activity.
⚪ Magnetic storage
⚪ Storage Area Network (SAN)-attached

Q33) You are designing an e-commerce web application that will scale to potentially hundreds of thousands of concurrent users. Which database technology is best suited to hold the session state for large numbers of concurrent users?

⚪ Data warehouse using Amazon Redshift
✅ NoSQL database table using Amazon DynamoDB
Explanation:-NoSQL databases like Amazon DynamoDB excel at scaling to hundreds of thousands of requests with key/value access to user profile and session.
⚪ Relational database using Amazon Relational Database Service (Amazon RDS)
⚪ Amazon Simple Storage Service (Amazon S3)

Q34) Which of the following techniques can you use to help you meet Recovery Point Objective (RPO) and Recovery Time Objective (RTO) requirements? (Choose 3 answers)

✅ Multi-AZ deployment
Explanation:-DB snapshots allow you to back up and recover your data, while read replicas and a Multi-AZ deployment allow you to replicate your data and reduce the time to failover.
⚪ DB option groups
✅ Read replica
Explanation:-DB snapshots allow you to back up and recover your data, while read replicas and a Multi-AZ deployment allow you to replicate your data and reduce the time to failover.
✅ DB snapshots
Explanation:-DB snapshots allow you to back up and recover your data, while read replicas and a Multi-AZ deployment allow you to replicate your data and reduce the time to failover.

Q35) When using Amazon Relational Database Service (Amazon RDS) Multi-AZ, how can you offload read requests from the primary? (Choose 2 answers)

✅ Create a caching environment using ElastiCache to cache frequently used data. Update the application logic to read/write from the cache.
Explanation:-Amazon RDS allows for the creation of one or more read-replicas for many engines that can be used to handle reads. Another common pattern is to create a cache using Memcached and Amazon ElastiCache to store frequently used queries. The secondary slave DB Instance is not accessible and cannot be used to offload queries.

⚪ Configure the connection string of the clients to connect to the secondary node and perform reads while the primary is used for writes.

⚪ Amazon RDS automatically sends writes to the primary and sends reads to the secondary.

✅ Add a read replica DB instance, and configure the client's application logic to use a read-replica.
Explanation:-Amazon RDS allows for the creation of one or more read-replicas for many engines that can be used to handle reads. Another common pattern is to create a cache using Memcached and Amazon ElastiCache to store frequently used queries. The secondary slave DB Instance is not accessible and cannot be used to offload queries.

Q36) You are building a large order processing system and are responsible for securing the database. Which actions will you take to protect the data? (Choose 3 answers)

✅ Configure database users, and grant permissions to database objects.
Explanation:-Protecting your database requires a multilayered approach that secures the infrastructure, the network, and the database itself. Amazon RDS is a managed service and direct access to the OS is not available.

✅ Configure security groups and network Access Control Lists (ACLs) to limit network access.
Explanation:-Protecting your database requires a multilayered approach that secures the infrastructure, the network, and the database itself. Amazon RDS is a managed service and direct access to the OS is not available.

✅ Adjust AWS Identity and Access Management (IAM) permissions for administrators.
Explanation:-Protecting your database requires a multilayered approach that secures the infrastructure, the network, and the database itself. Amazon RDS is a managed service and direct access to the OS is not available.

⚪ Install anti-virus software on the Amazon RDS DB Instance.

Q37)

Your team manages a popular website running Amazon Relational Database Service (Amazon RDS) MySQL back end. The Marketing department has just informed you about an upcoming television commercial that will drive thousands of new visitors to the website.

How can you prepare your database to handle the load? (Choose 3 answers)

✅ Upgrade the storage from Magnetic volumes to General Purpose Solid State Drive (SSD) volumes.
Explanation:-Vertically scaling up is one of the simpler options that can give you additional processing power without making any architectural changes. Read replicas require some application changes but let you scale processing power horizontally. Finally, busy databases are often I/O-bound, so upgrading storage to General Purpose (SSD) or Provisioned IOPS (SSD) can often allow for additional request processing.

✅ Create read replicas to offload read requests and update your application.
Explanation:-Vertically scaling up is one of the simpler options that can give you additional processing power without making any architectural changes. Read replicas require some application changes but let you scale processing power horizontally. Finally, busy databases are often I/O-bound, so upgrading storage to General Purpose (SSD) or Provisioned IOPS (SSD) can often allow for additional request processing.

✅ Vertically scale the DB Instance by selecting a more powerful instance class.
Explanation:-Vertically scaling up is one of the simpler options that can give you additional processing power without making any architectural changes. Read replicas require some application changes but let you scale processing power horizontally. Finally, busy databases are often I/O-bound, so upgrading storage to General Purpose (SSD) or Provisioned IOPS (SSD) can often allow for additional request processing.

⚪ Upgrade to Amazon Redshift for faster columnar storage.

Q38)

You are building a photo management application that maintains metadata on millions of images in an Amazon DynamoDB table. When a photo is retrieved, you want to display the metadata next to the image.

Which Amazon DynamoDB operation will you use to retrieve the metadata attributes from the table?

✅ Query operation
Explanation:-Query is the most efficient operation to find a single item in a large table.

⚪ Search operation

⚪ Scan operation

⚪ Find operation

Q39)

You are creating an Amazon DynamoDB table that will contain messages for a social chat application. This table will have the following attributes: Username (String), Timestamp (Number), Message (String).

Which attribute should you use as the partition key?

The sort key?

⚪ Timestamp, Message

⚪ Username, Message

✅ Username, Timestamp
Explanation:-Using the Username as a partition key will evenly spread your users across the partitions. Messages are often filtered down by time range, so Timestamp makes sense as a sort key.

⚪ Message, Timestamp

Q40) Which of the following statements about Amazon DynamoDB tables are true? (Choose 2 answers)

⚪ You can only have one global secondary index.

✅ You can only have one local secondary index.

Explanation:-You can only have a single local secondary index, and it must be created at the same time the table is created. You can create many global secondary indexes after the table has been created.

⚪ Global secondary indexes can only be created when the table is being created.

✅ Local secondary indexes can only be created when the table is being created.

Explanation:-You can only have a single local secondary index, and it must be created at the same time the table is created. You can create many global secondary indexes after the table has been created.

Q41) Which of the following workloads are a good fit for running on Amazon Redshift? (Choose 2 answers)

⚪ Manage session state and user profile data for thousands of concurrent users

✅ Data warehouse used to aggregate multiple disparate data sources

Explanation:-Amazon Redshift is an Online Analytical Processing (OLAP) data warehouse designed for analytics, Extract, Transform, Load (ETL), and high-speed querying. It is not well suited for running transactional applications that require high volumes of small inserts or updates.

✅ Reporting database supporting back-office analytics

Explanation:-Amazon Redshift is an Online Analytical Processing (OLAP) data warehouse designed for analytics, Extract, Transform, Load (ETL), and high-speed querying. It is not well suited for running transactional applications that require high volumes of small inserts or updates.

⚪ Transactional database supporting a busy e-commerce order processing website

---

Q42)

Each AWS region is composed of two or more locations that offer organizations the ability to operate production systems that are more highly available, fault tolerant, and scalable than would be possible using a single data center.

What are these locations called?

⚪ Replication areas

✅ Availability Zones

Explanation:-An Availability Zone is a distinct location within a region that is insulated from failures in other Availability Zones and provides inexpensive, low-latency network connectivity to other Availability Zones in the same region. Replication areas, geographic districts, and compute centers are not terms used to describe AWS data center locations.

⚪ Geographic districts

⚪ Compute centers

Q43) What is the deployment term for an environment that extends an existing on-premises infrastructure into the cloud to connect cloud resources to internal systems?

⚪ On-premises deployment

✅ Hybrid deployment

Explanation:-A hybrid deployment is a way to connect infrastructure and applications between cloud-based resources and existing resources that are not located in the cloud. An all-in deployment refers to an environment that exclusively runs in the cloud. An on-premises deployment refers to an environment that runs exclusively in an organization's data center.

⚪ All-in deployment

⚪ Scatter deployment

Q44) Which AWS Cloud service allows organizations to gain system-wide visibility into resource utilization, application performance, and operational health?

⚪ Amazon Simple Notification Service (Amazon SNS)

✅ Amazon CloudWatch

Explanation:-Amazon CloudWatch is a monitoring service for AWS Cloud resources and the applications organizations run on AWS. It allows organizations to collect and track metrics, collect and monitor log files, and set alarms. AWS IAM, Amazon SNS, and AWS CloudFormation do not provide visibility into resource utilization, application performance, and the operational health of your AWS resources.

⚪ AWS Identity and Access Management (IAM)

⚪ AWS CloudFormation

Q45) Which of the following AWS Cloud services is a fully managed NoSQL database service?

⚪ Amazon ElastiCache

✅ Amazon DynamoDB

Explanation:-. Amazon DynamoDB is a fully managed, fast, and flexible NoSQL database service for all applications that need consistent, single-digit millisecond latency at any scale. Amazon SQS, Amazon ElastiCache, and Amazon RDS do not provide a NoSQL database service. Amazon SQS is a managed message queuing service. Amazon ElastiCache is a service that provides in-memory cache in the cloud. Finally, Amazon RDS provides managed relational databases.

⚪ Amazon Simple Queue Service (Amazon SQS)

⚪ Amazon Relational Database Service (Amazon RDS)

Q46) Your company experiences fluctuations in traffic patterns to their e-commerce website based on flash sales. What service can help your company dynamically match the required compute capacity to the spike in traffic during flash sales?

⚪ Amazon Virtual Private Cloud (Amazon VPC)

⚪ Amazon Simple Notification Service (Amazon SNS)

⚪ Amazon Glacier

✅ Auto Scaling

Explanation:-Auto Scaling helps maintain application availability and allows organizations to scale Amazon Elastic Compute Cloud (Amazon EC2) capacity up or down automatically according to conditions defined for the particular workload. Not only can it be used to help ensure that the desired number of Amazon EC2 instances are running, but it also allows resources to scale in and out to match the demands of dynamic workloads. Amazon

Glacier, Amazon SNS, and Amazon VPC do not provide services to scale compute

---

Q47)

Your company provides an online photo sharing service. The development team is looking for ways to deliver image files with the lowest latency to end users so the website content is delivered with the best possible performance.

What service can help speed up distribution of these image files to end users around the world?

- ◯ Amazon Elastic Compute Cloud (Amazon EC2)
- ◯ Amazon Route 53
- ◯ AWS Storage Gateway
- ✅ Amazon CloudFront

Explanation:-Amazon CloudFront is a web service that provides a CDN to speed up distribution of your static and dynamic web content—for example, .html , .css , .php , image, and media files—to end users. Amazon CloudFront delivers content through a worldwide network of edge locations. Amazon EC2, Amazon Route 53, and AWS Storage Gateway do not provide CDN services that are required to meet the needs for the photo sharing service.

Q48)

Your company runs an Amazon Elastic Compute Cloud (Amazon EC2) instance periodically to perform a batch processing job on a large and growing filesystem. At the end of the batch job, you shut down the Amazon EC2 instance to save money but need to persist the filesystem on the Amazon EC2 instance from the previous batch runs.

What AWS Cloud service can you leverage to meet these requirements?

- ◯ Amazon Glacier
- ◯ Amazon DynamoDB
- ✅ Amazon Elastic Block Store (Amazon EBS)

Explanation:-Amazon EBS provides persistent block-level storage volumes for use with Amazon EC2 instances on the AWS Cloud. Amazon DynamoDB, Amazon Glacier, and AWS CloudFormation do not provide persistent block-level storage for Amazon EC2 instances. Amazon DynamoDB provides managed NoSQL databases. Amazon Glacier provides low- cost archival storage. AWS CloudFormation gives developers and systems administrators an easy way to create and manage a collection of related AWS resources.

- ◯ AWS CloudFormation

Q49) What AWS Cloud service provides a logically isolated section of the AWS Cloud where organizations can launch AWS resources in a virtual network that they define?

- ◯ Amazon Route 53
- ✅ Amazon Virtual Private Cloud (Amazon VPC)

Explanation:-Amazon VPC lets organizations provision a logically isolated section of the AWS Cloud where they can launch AWS resources in a virtual network that they define. Amazon SWF, Amazon Route 53, and AWS CloudFormation do not provide a virtual network. Amazon SWF helps developers build, run, and scale background jobs that have parallel or sequential steps. Amazon Route 53 provides a highly available and scalable cloud Domain Name System (DNS) web service. Amazon CloudFormation gives developers and sys

- ◯ Amazon Simple Workflow Service (Amazon SWF)
- ◯ AWS CloudFormation

Q50) Your company provides a mobile voting application for a popular TV show, and 5 to 25 million viewers all vote in a 15-second timespan. What mechanism can you use to decouple the voting application from your back-end services that tally the votes?

- ◯ Amazon Redshift
- ✅ Amazon Simple Queue Service (Amazon SQS)

Explanation:-Amazon SQS is a fast, reliable, scalable, fully managed message queuing service that allows organizations to decouple the components of a cloud application. With Amazon SQS, organizations can transmit any volume of data, at any level of throughput, without losing messages or requiring other services to be always available. AWS CloudTrail records AWS API calls, and Amazon Redshift is a data warehouse, neither of which would be useful as an architecture component for decoupling components. Amazon

- ◯ AWS CloudTrail
- ◯ Amazon Simple Notification Service (Amazon SNS)

Q51) In what ways does Amazon Simple Storage Service (Amazon S3) object storage differ from block and file storage? (Choose 2 answers)

- ✅ Objects are stored in buckets.

Explanation:-Objects are stored in buckets, and objects contain both data and metadata

- ◯ Objects can be any size.
- ✅ Objects contain both data and metadata.

Explanation:-Objects are stored in buckets, and objects contain both data and metadata

- ◯ Objects are identified by a numbered address.
- ◯ Amazon S3 stores data in fixed size blocks.

Q52) Which of the following are not appropriates use cases for Amazon Simple Storage Service (Amazon S3)? (Choose 2 answers)

- ◯ Storing backups for a relational database
- ✅ Primary storage for a database

Explanation:-Amazon S3 cannot be mounted to an Amazon EC2 instance like a file system and should not serve as primary database storage.

- ✅ Storing a file system mounted to an Amazon Elastic Compute Cloud (Amazon EC2) instance

Explanation:-Amazon S3 cannot be mounted to an Amazon EC2 instance like a file system and should not serve as primary database storage.

○ Storing web content

○ Storing logs for analytics

Q53) What are some of the key characteristics of Amazon Simple Storage Service (Amazon S3)? (Choose 3 answers)

○ Objects are world-readable by default.

✅ Amazon S3 uses a REST (Representational State Transfer) Application Program Interface (API).

✅ Amazon S3 can store unlimited amounts of data.

✅ All objects have a URL.

Explanation:-Objects are private by default, and storage in a bucket does not need to be pre-allocated.

○ You must pre-allocate the storage in a bucket.

Q54) Which features can be used to restrict access to Amazon Simple Storage Service (Amazon S3) data? (Choose 3 answers)

✅ Use an Amazon S3 bucket policy.

Explanation:-Static website hosting does not restrict data access, and neither does an Amazon S3 lifecycle policy.

○ Use a lifecycle policy.

✅ Use an Amazon S3 Access Control List (ACL) on a bucket or object.

Explanation:-Static website hosting does not restrict data access, and neither does an Amazon S3 lifecycle policy.

○ Enable static website hosting on the bucket.

✅ Create a pre-signed URL for an object.

Explanation:-Static website hosting does not restrict data access, and neither does an Amazon S3 lifecycle policy.

Q55)

Your application stores critical data in Amazon Simple Storage Service (Amazon S3), which must be protected against inadvertent or intentional deletion.

How can this data be protected? (Choose 2 answers)

○ Use a lifecycle policy to migrate data to Amazon Glacier.

✅ Enable MFA Delete on the bucket.

Explanation:-Versioning protects data against inadvertent or intentional deletion by storing all versions of the object, and MFA Delete requires a one-time code from a Multi-Factor Authentication (MFA) device to delete objects. Cross-region replication and migration to the Amazon Glacier storage class do not protect against deletion. Vault locks are a feature of Amazon Glacier, not a feature of Amazon S3.

○ Use cross-region replication to copy data to another bucket automatically.

○ Set a vault lock.

✅ Enable versioning on the bucket.

Explanation:-Versioning protects data against inadvertent or intentional deletion by storing all versions of the object, and MFA Delete requires a one-time code from a Multi-Factor Authentication (MFA) device to delete objects. Cross-region replication and migration to the Amazon Glacier storage class do not protect against deletion. Vault locks are a feature of Amazon Glacier, not a feature of Amazon S3.

Q56)

Your company stores documents in Amazon Simple Storage Service (Amazon S3), but it wants to minimize cost. Most documents are used actively for only about a month, then much less frequently. However, all data needs to be available within minutes when requested.

How can you meet these requirements?

✅ Migrate the data to Amazon S3 Standard – Infrequent Access (IA) after 30 days.

Explanation:-Migrating the data to Amazon S3 Standard-IA after 30 days using a lifecycle policy is correct. Amazon S3 RRS should only be used for easily replicated data, not critical data. Migration to Amazon Glacier might minimize storage costs if retrievals are infrequent, but documents would not be available in minutes when needed.

○ Migrate the data to Amazon Glacier after 30 days.

○ Migrate the data to Amazon S3 Reduced Redundancy Storage (RRS) after 30 days.

○ Turn on versioning, then migrate the older version to Amazon Glacier.

Q57) Amazon Simple Storage Service (S3) bucket policies can restrict access to an Amazon S3 bucket and objects by which of the following? (Choose 3 answers)

○ Country of origin

✅ AWS account

○ Company name

✅ IP address range

Explanation:-Amazon S3 bucket policies cannot specify a company name or a country or origin, but they can specify request IP range, AWS account, and a prefix for objects that can be accessed.

✅ Objects with a specific prefix

Q58) Amazon Simple Storage Service (Amazon S3) is an eventually consistent storage system. For what kinds of operations is it possible to get stale data as a result of eventual consistency? (Choose 2 answers)

○ DELETE after PUT of new object

✅ GET after overwrite PUT (PUT to an existing key)

Explanation:-Amazon S3 provides read-after-write consistency for PUTs to new objects (new key), but eventual consistency for GETs and DELETEs of existing objects (existing key).

✅ GET or LIST after a DELETE

Explanation:-Amazon S3 provides read-after-write consistency for PUTs to new objects (new key), but eventual consistency for GETs and DELETEs of existing objects (existing key).

⬤ GET after PUT of a new object

Q59) What must be done to host a static website in an Amazon Simple Storage Service (Amazon S3) bucket? (Choose 3 answers)

✅ Make the objects in the bucket world-readable.
⬤ Enable File Transfer Protocol (FTP) on the bucket.
✅ Create a bucket with the same name as the website.
✅ Configure the bucket for static hosting and specify an index and error document.

Explanation:-The three options are required and normally you also set a friendly CNAME to the bucket URL. Amazon S3 does not support FTP transfers, and HTTP does not need to be enabled.

⬤ Enable HTTP on the bucket.

Q60)

You have valuable media files hosted on AWS and want them to be served only to authenticated users of your web application. You are concerned that your content could be stolen and distributed for free.

How can you protect your content?

⬤ Use logging to track your content.
⬤ Use AWS Identity and Access Management (IAM) policies to restrict access.
✅ Generate pre-signed URLs for content in the web application.

Explanation:-Pre-signed URLs allow you to grant time-limited permission to download objects from an Amazon Simple Storage Service (Amazon S3) bucket. Static web hosting generally requires world-read access to all content. AWS IAM policies do not know who the authenticated users of the web app are. Logging can help track content loss, but not prevent it.

⬤ Use static web hosting.

Q61) Amazon Glacier is well-suited to data that is which of the following? (Choose 2 answers)

⬤ Is frequently erased within 30 days
✅ Is available after a three- to five-hour restore period
⬤ Must be immediately available when needed
✅ Is infrequently or rarely accessed