Question 1 (Single Choice)

A company is developing a two-tier web application on AWS. The developers have deployed the application on Amazon EC2 instances that are directly connected to a backend Amazon RDS database. The company must not hardcode database credentials in the application and must implement a solution for regularly and automatically rotating database credentials. Which solution can meet these requirements with the least operational overhead?

A: Store database credentials in instance metadata. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to run a scheduled AWS Lambda function that updates both the RDS credentials and the instance metadata.

B: Store database credentials in an encrypted configuration file in an Amazon S3 bucket. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to run a scheduled AWS Lambda function that updates both the RDS credentials and the credentials in the configuration file. Use S3 versioning to ensure rollback to previous values.

C: Store database credentials as a secret in AWS Secrets Manager. Enable automatic rotation of the secret. Attach the required permissions to the EC2 role to grant access to the secret.

D: Store database credentials as an encrypted parameter in AWS Systems Manager Parameter Store. Enable automatic rotation for the encrypted parameter. Attach the required permissions to the EC2 role to grant access to the encrypted parameter.

Question 2 (Single Choice)

A company needs to store data in Amazon S3 and must prevent the data from being modified. The company wants new objects uploaded to Amazon S3 to remain unchanged for an unspecified amount of time until the company decides to modify the objects. Only specific users within the company's AWS account should have the ability to delete the objects. What should a solutions architect do to meet these requirements?

A: Create an S3 Glacier Vault and apply a Write Once, Read Many (WORM) Vault Lock policy to the objects.

B: Create an S3 bucket with S3 Object Lock enabled. Enable versioning. Set a retention period of 100 years. Use governance mode as the default retention mode for new objects in the bucket.

C: Create an S3 bucket. Use AWS CloudTrail to track any S3 API events that modify objects. Upon receiving a notification, restore modified objects from any backup versions owned by the company.

D: Create an S3 bucket with S3 Object Lock enabled. Enable versioning. Add a legal hold to the objects. Add the s3:PutObjectLegalHold permission to the IAM policy for the users who need the ability to delete objects.

Question 3 (Single Choice)

A company has implemented a self-managed DNS solution on three Amazon EC2 instances behind a Network Load Balancer (NLB) in the us-west-2 Region. Most of the company's users are located in the United States and Europe. The company wants to improve the performance and availability of the solution. It launches and configures three EC2 instances in the eu-west-1 Region and adds these EC2 instances as targets for a new NLB. What solution can the company use to route traffic to all EC2 instances?

A: Create an Amazon Route 53 geolocation routing policy to route requests to one of the two NLBs. Create an Amazon CloudFront distribution. Use Route 53 records as the origin for the distribution.

B: Create a standard accelerator in AWS Global Accelerator. Create endpoint groups in us-west-2 and eu-west-1. Add the two NLBs as endpoints for the endpoint groups.

C: Attach Elastic IP addresses to the six EC2 instances. Create an Amazon Route 53 geolocation routing policy to route requests to one of the six EC2 instances. Create an Amazon CloudFront distribution. Use Route 53 records as the origin for the distribution.

D: Replace the two NLBs with two Application Load Balancers (ALBs). Create an Amazon Route 53 latency routing policy to route requests to one of the two ALBs. Create an Amazon CloudFront distribution. Use Route 53 records as the origin for the distribution.

Question 4 (Single Choice)

A company is running its e-commerce application on AWS. Each new order is published as a message to a RabbitMQ queue running on an Amazon EC2 instance in a single Availability Zone. These messages are processed by different application instances running on separate EC2 instances. The application stores details in a PostgreSQL database running on another EC2 instance. All EC2 instances are in the same Availability Zone. The company needs to redesign its architecture to provide the highest availability with the least operational overhead. What should a solutions architect do to meet these requirements?

A: Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon MQ. Create a multi-AZ Auto Scaling group for EC2 instances hosting the application. Create another multi-AZ Auto Scaling group for the EC2 instances hosting the PostgreSQL database.

B: Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon MQ. Create a multi-AZ Auto Scaling group for EC2 instances hosting the application. Migrate the database to an Amazon RDS deployment with multi-AZ for PostgreSQL.

C: Create a multi-AZ Auto Scaling group for EC2 instances hosting the RabbitMQ queue. Create another multi-AZ Auto Scaling group for EC2 instances hosting the application. Migrate the database to an Amazon RDS deployment with multi-AZ for PostgreSQL.

D: Create a multi-AZ Auto Scaling group for EC2 instances hosting the RabbitMQ queue. Create another multi-AZ Auto Scaling group for EC2 instances hosting the application. Create a third multi-AZ Auto Scaling group for EC2 instances hosting the PostgreSQL database.

Question 5 (Single Choice)

A company sells ringtones created from clips of popular songs. The files containing the ringtones are stored in Amazon S3 Standard and are at least 128 KB in size. The company has millions of files, but ringtones that are over 90 days old are rarely downloaded. The company needs to reduce storage costs while ensuring that users can access the most frequently accessed files at any time. What should the company do to meet these requirements in the most cost-effective way?

A: Configure S3 Standard-Infrequent Access (S3 Standard-IA) storage as the initial storage tier for the objects.

B: Move the files to S3 Intelligent-Tiering and configure it to transition objects to a lower-cost storage tier after 90 days.

C: Configure an S3 Inventory to manage the objects and transition them to S3 Standard-Infrequent Access (S3 Standard-IA) after 90 days.

D: Implement an S3 Lifecycle policy to transition objects from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) after 90 days.

Question 6 (Single Choice)

A company needs to save the results of medical trials in an Amazon S3 repository. The repository must allow a small group of scientists to add new files and restrict all other users to read-only access. No user should be able to modify or delete any files in the repository. Each file in the repository must be retained for at least one year after its creation date. Which solution will meet these requirements?

A: Use S3 Object Lock in governance mode with a legal hold for one year.

B: Use S3 Object Lock in compliance mode with a retention period of 365 days.

C: Use IAM roles to restrict all users from deleting or modifying objects in the S3 bucket. Use an S3 bucket policy to allow only the IAM roles.

D: Configure the S3 bucket to invoke an AWS Lambda function every time an object is added.

Question 7 (Multiple Choice)

A solutions architect is designing a shared storage solution for a web application deployed across multiple Availability Zones. The web application runs on Amazon EC2 instances in an Auto Scaling group. The company plans to make frequent content changes. The solution must have strong consistency and return updated content immediately after changes occur. Which solutions meet these requirements?

A: Use an AWS Storage Gateway Volume Gateway with Internet Small Computer Systems Interface (iSCSI) block storage mounted on the EC2 instances.

B: Create an Amazon Elastic File System (Amazon EFS) file system and mount it on the EC2 instances.

C: Create a shared Amazon Elastic Block Store (Amazon EBS) volume and mount it on the EC2 instances.

D: Use AWS DataSync to continuously synchronize data between EC2 instances in the Auto Scaling group.

E: Create an Amazon S3 bucket to store the web content, set the Cache-Control metadata header to no-cache, and use Amazon CloudFront to deliver the content.

Question 8 (Single Choice)

A company has a three-tier web application deployed on AWS. The web servers are deployed in a public subnet of a VPC, while the application servers and database servers are deployed in private subnets of the same VPC. The company has deployed a third-party virtual firewall appliance from AWS Marketplace in the inspection VPC. The appliance is configured with an IP interface that can accept IP packets. A solutions architect needs to integrate the web application with the appliance to inspect all traffic before it reaches the web servers. Which solution meets these requirements with the least operational overhead?

A: Create a Network Load Balancer (NLB) in the public subnet of the application's VPC to route traffic to the appliance for packet inspection.

B: Create an Application Load Balancer (ALB) in the public subnet of the application's VPC to route traffic to the appliance for packet inspection.

C: Deploy a transit gateway in the inspection VPC and configure route tables to route incoming packets through the transit gateway.

D: Deploy a Gateway Load Balancer in the inspection VPC. Create a Gateway Load Balancer endpoint to receive incoming packets and forward them to the appliance.

Question 9 (Single Choice)

A company wants to improve its ability to clone large production datasets into a test environment within the same AWS Region. The data is stored on Amazon Elastic Block Store (Amazon EBS) volumes attached to Amazon EC2 instances. Modifications to the cloned data must not affect the production environment. The software accessing the data requires consistent high I/O performance. The solutions architect needs to minimize the time required to clone the production data to the test environment. Which solution can meet these requirements?

C: Take an EBS snapshot of the production EBS volume, create and initialize a new EBS volume, and attach the new EBS volume to the test environment EC2 instance before restoring the volume from the production EBS snapshot.

D: Take an EBS snapshot of the production EBS volume, enable EBS Fast Snapshot Restore on the snapshot, restore the snapshot to a new EBS volume, and attach the new EBS volume to the EC2 instance in the test environment.

Question 10 (Multiple Choice)

A company is developing an e-commerce application. The application consists of a load-balanced frontend, a container-based application, and a relational database. A solutions architect must create a highly available solution with minimal manual intervention. Which solutions meet these requirements?

A: Create an Amazon RDS database instance in multi-AZ mode.

B: Create an Amazon RDS database instance with one or more replicas in another Availability Zone.

C: Create a Docker cluster based on Amazon EC2 instances to handle dynamic application loads.

D: Create an Amazon Elastic Container Service (Amazon ECS) cluster with the Fargate launch type to handle dynamic application loads.

E: Create an Amazon Elastic Container Service (Amazon ECS) cluster with the Amazon EC2 launch type to handle dynamic application loads.

Question 11 (Single Choice)

An application allows users at a company's headquarters to access product data. The product data is stored in an Amazon RDS MySQL database instance. The operations team has identified application performance degradation and wants to separate read traffic from write traffic. A solutions architect needs to quickly optimize the application's performance. What should the solutions architect recommend?

A: Convert the existing database to a multi-AZ deployment. Serve read requests from the primary Availability Zone.

B: Convert the existing database to a multi-AZ deployment. Serve read requests from the secondary Availability Zone.

C: Create a read replica of the database. Configure the read replica with half the compute and storage resources of the source database.

D: Create a read replica of the database. Configure the read replica with the same compute and storage resources as the source database.

Question 12 (Single Choice)

A company hosts a static website on Amazon S3 and uses Amazon Route 53 for DNS. The website is experiencing increased demand from users worldwide. The company must reduce latency for users accessing the website. Which solution best meets these requirements?

A: Replicate the S3 bucket containing the website to all AWS Regions. Add Route 53 geolocation routing entries.

B: Provision an accelerator in AWS Global Accelerator, associate the provisioned IP addresses with the S3 bucket, and update the Route 53 entries to point to the accelerator’s IP addresses.

C: Add an Amazon CloudFront distribution in front of the S3 bucket and update the Route 53 entries to point to the CloudFront distribution.

D: Enable S3 Transfer Acceleration on the bucket and update the Route 53 entries to point to the new endpoint.

Question 13 (Single Choice)

An online retail company has over 50 million active customers and receives more than 25,000 orders daily. The company collects purchase data from customers and stores this data in Amazon S3. Additional customer data is stored in Amazon RDS. The company wants to make all data available to individual teams for analysis. The solution must provide fine-grained permissions for managing access to the data and minimize operational overhead. Which solution can meet these requirements?

A: Migrate purchase data to write directly into Amazon RDS and use RDS access controls to restrict access.

B: Schedule an AWS Lambda function to periodically copy data from Amazon RDS to Amazon S3. Create AWS Glue crawlers and use Amazon Athena to query the data. Use S3 bucket policies to restrict access.

C: Use AWS Lake Formation to create a data lake. Create an AWS Glue JDBC connection to Amazon RDS. Use the Lake Formation-managed S3 bucket and Lake Formation access controls to restrict access.

D: Create an Amazon Redshift cluster. Schedule an AWS Lambda function to periodically copy data from Amazon S3 and Amazon RDS to Amazon Redshift. Use Amazon Redshift access controls to restrict access.

Question 14 (Multiple Choice)

A company is running a publicly accessible serverless application that uses Amazon API Gateway and AWS Lambda. The application has recently experienced a surge in fraudulent requests originating from a botnet. What steps should the solutions architect take to block unauthorized requests?

A: Create a usage plan with an API key shared only with legitimate users.

B: Integrate logic in the Lambda function to ignore requests from fraudulent IP addresses.

C: Implement AWS WAF rules to target malicious requests and trigger actions to filter them out.

D: Convert the existing public API to a private API and update DNS records to redirect users to the new API endpoint.

E: Create an IAM role for each user attempting to access the API. Require users to assume the role when making API calls.

Question 15 (Multiple Choice)

A company is designing a cloud communication platform driven by APIs. The application is hosted on Amazon EC2 instances behind a Network Load Balancer (NLB). The company uses Amazon API Gateway to provide API access to external users. The company wants to protect the platform from SQL injection and other web attacks while also detecting and mitigating large and complex DDoS attacks. Which combination of solutions provides the most protection?

A: Use AWS WAF to protect the NLB.

B: Use AWS Shield Advanced with the NLB.

C: Use AWS WAF to protect Amazon API Gateway.

D: Combine Amazon GuardDuty with AWS Shield Standard.

E: Use AWS Shield Standard with Amazon API Gateway.

Question 16 (Single Choice)

A company has a web application with a sporadic usage pattern. There is high usage at the beginning of each month, moderate usage at the start of each week, and unpredictable usage during the week. The application currently consists of a web server and a MySQL database server running in a data center. The company wants to migrate the application to the AWS cloud and must choose a cost-effective database platform that requires no changes to the database. Which solution meets these requirements?

A: Amazon DynamoDB

B: Amazon RDS for MySQL

C: MySQL-compatible Amazon Aurora Serverless

D: MySQL deployed on Amazon EC2 instances in an Auto Scaling group

Question 17 (Single Choice)

A company wants to run hybrid workloads for data processing. The on-premises application needs to access data using the NFS protocol for local processing, and the data must also be accessible from the AWS cloud for further analysis and batch processing. Which solution meets these requirements?

A: Use AWS Storage Gateway File Gateway to provide file storage to AWS, then perform analysis on the data in the AWS cloud.

B: Use AWS Storage Gateway Tape Gateway to copy backups of on-premises data to AWS, then perform analysis on the data in the AWS cloud.

C: Use AWS Storage Gateway Volume Gateway in stored volume mode to periodically snapshot the on-premises data and copy it to AWS.

D: Use AWS Storage Gateway Volume Gateway in cached volume mode to back up all local storage to the AWS cloud, then perform analysis on the data in the cloud.

· AWS Storage Gateway File Gateway

· Amazon EFS（Elastic File System）

Question 18 (Single Choice)

A company has a small Python application that processes JSON documents and outputs results to a local SQL database. The application runs thousands of times daily. The company wants to migrate the application to the AWS cloud and requires a highly available solution that maximizes scalability and minimizes operational overhead. Which solution meets these requirements?

A: Store JSON documents in an Amazon S3 bucket, run Python code on multiple Amazon EC2 instances to process the documents, and store the results in an Amazon Aurora DB cluster.

B: Store JSON documents in an Amazon S3 bucket, create an AWS Lambda function to run Python code to process the documents as they arrive in the S3 bucket, and store the results in an Amazon Aurora DB cluster.

C: Store JSON documents on an Amazon Elastic Block Store (Amazon EBS) volume, use EBS Multi-Attach to attach the volume to multiple Amazon EC2 instances, and run Python code on the EC2 instances to process the documents. Store the results in an Amazon RDS DB instance.

D: Place JSON documents in an Amazon Simple Queue Service (Amazon SQS) queue, deploy the Python code as containers on an Amazon Elastic Container Service (Amazon ECS) cluster with the EC2 launch type, and process the SQS messages using the containers. Store the results in an Amazon RDS DB instance.

Question 19 (Single Choice)

A company hosts its application on AWS and uses Amazon Cognito to manage users. When users log in to the application, the application uses a REST API hosted in Amazon API Gateway to retrieve the required data from Amazon DynamoDB. The company wants an AWS-managed solution to control access to the REST API to reduce development effort. Which solution meets these requirements with minimal operational overhead?

A: Configure an AWS Lambda function as an API Gateway authorizer to validate which user made the request.

B: Create and assign an API key for each user that must be sent with each request. Use an AWS Lambda function to validate the key.

C: Send the user's email address in the header of each request and invoke an AWS Lambda function to validate that the user with the email address has the correct permissions.

D: Configure an Amazon Cognito user pool authorizer in API Gateway to allow Amazon Cognito to validate each request.

Question 20 (Single Choice)

A company uses Amazon S3 as its data lake. A new partner must upload data files using SFTP. A solutions architect needs to implement a highly available SFTP solution with minimal operational overhead. Which solution meets these requirements?

A: Use AWS Transfer Family to configure an SFTP-enabled server with a publicly accessible endpoint. Choose the S3 data lake as the destination.

B: Use Amazon S3 File Gateway as an SFTP server. Expose the S3 File Gateway endpoint URL to the new partner.

C: Launch an Amazon EC2 instance in a private subnet with a VPN. Instruct the new partner to upload files to the EC2 instance via the VPN. Run a cron job on the EC2 instance to upload files to the S3 data lake.

D: Launch an Amazon EC2 instance in a VPC private subnet. Place a Network Load Balancer (NLB) in front of the EC2 instance. Create an SFTP listener port for the NLB and share the NLB hostname with the new partner. Run a cron job on the EC2 instance to upload files to the S3 data lake.

Question 21 (Single Choice)

As part of budget planning, management wants a report that lists AWS billing items by user. The data will be used to create department budgets. A solutions architect needs to determine the most efficient way to obtain the report. Which solution meets these requirements?

A: Use Amazon Athena to run queries to generate the report.

B: Create and download a report in Cost Explorer.

C: Access billing details from the account dashboard and download the bill.

D: Modify a cost budget in AWS Budgets to trigger alerts through Amazon Simple Email Service (Amazon SES).

Question 22 (Single Choice)

An e-commerce company stores several terabytes of customer data in the AWS cloud. The data includes Personally Identifiable Information (PII) and is used by three applications. Only one application requires access to PII, and the PII must be removed before the other two applications process the data. Which solution meets these requirements with the least operational overhead?

A: Store the data in an Amazon DynamoDB table. Create a proxy application layer to intercept and process data requests for each application.

B: Store the data in an Amazon S3 bucket. Use S3 Object Lambda to process and transform the data before returning it to the requesting applications.

C: Process the data and store the transformed data in three separate Amazon S3 buckets, so each application has its own customized dataset. Point each application to its respective S3 bucket.

D: Process the data and store the transformed data in three separate Amazon DynamoDB tables, so each application has its own customized dataset. Point each application to its respective DynamoDB table.

Question 23 (Single Choice)

A company hosts a multi-tier web application that uses an Amazon Aurora MySQL DB cluster for storage. The application tier is hosted on Amazon EC2 instances. The company's IT security policy requires the database credentials to be encrypted and rotated every 14 days. What should a solutions architect do to meet this requirement?

A: Create a new AWS Key Management Service (AWS KMS) encryption key. Use AWS Secrets Manager to create a new secret with the KMS key and appropriate credentials. Associate the secret with the Aurora DB cluster and configure a 14-day custom rotation period.

B: In AWS Systems Manager Parameter Store, create two parameters: one for the username as a string parameter and another for the password as a SecureString parameter. Choose AWS Key Management Service (AWS KMS) encryption for the password parameter. Load these parameters in the application layer and implement an AWS Lambda function to rotate the password every 14 days.

C: Store the credentials file in an AWS Key Management Service (AWS KMS)-encrypted Amazon Elastic File System (Amazon EFS) file system. Mount the EFS file system on all EC2 instances in the application layer. Restrict access to the file system so the application can read the file and only superusers can modify it. Implement an AWS Lambda function to rotate the Aurora credentials every 14 days and write the new credentials to the file.

D: Store the credentials file in an AWS Key Management Service (AWS KMS)-encrypted Amazon S3 bucket. Have the application load the credentials from the bucket. Implement an AWS Lambda function to rotate the Aurora credentials every 14 days and upload the new credentials to the S3 bucket.

Question 24 (Single Choice)

A company has deployed a web application on AWS and hosts its backend database on Amazon RDS for MySQL. The database includes a primary instance and five read replicas to support scaling demands. The read replicas must lag behind the primary instance by no more than one second. The database regularly runs scheduled stored procedures. As website traffic increases, the replicas experience additional latency during peak loads. A solutions architect must minimize replication latency, maximize the use of existing code, and reduce operational overhead. Which solution meets these requirements?

A: Migrate the database to Amazon Aurora MySQL. Replace the read replicas with Aurora replicas and configure Aurora Auto Scaling. Replace the stored procedures with native Aurora MySQL functions.

B: Deploy an Amazon ElastiCache for Redis cluster in front of the database. Modify the application to check the cache before querying the database. Replace stored procedures with AWS Lambda functions.

C: Migrate the database to a MySQL database running on Amazon EC2 instances. Choose large, compute-optimized EC2 instances for all replica nodes. Maintain stored procedures on the EC2 instances.

D: Migrate the database to Amazon DynamoDB. Provision a high number of read capacity units (RCUs) to support the required throughput and configure on-demand capacity scaling. Replace stored procedures with DynamoDB Streams.

Question 25 (Multiple Choice)

A company uses a 100 GB Amazon RDS for Microsoft SQL Server Single-AZ DB instance in the US East Region to store customer transactions. The company needs high availability and automatic recovery for the DB instance. Additionally, the company must run reports on the RDS database several times a year. The reporting process causes transactional delays for customers. The company needs a solution that improves the performance of the reporting process. Which steps meet these requirements?

A: Modify the DB instance from a Single-AZ DB instance to a Multi-AZ deployment.

B: Take a snapshot of the current DB instance and restore it to a new RDS deployment in another Availability Zone.

C: Create a read replica of the DB instance in a different Availability Zone. Point all reporting requests to the read replica.

D: Migrate the database to RDS Custom.

E: Use RDS Proxy to restrict reporting requests to maintenance windows.

Question 26 (Single Choice)

A solutions architect is designing a new VPC architecture. The load balancer is placed in two public subnets, web servers in two private subnets, and MySQL databases in two other private subnets. The web servers only use HTTPS. The solutions architect has created a security group for the load balancer, allowing inbound traffic on port 443 from 0.0.0.0/0. Company policy requires each resource to have the least privileges while still performing its tasks. Which additional configuration should the solutions architect implement to meet these requirements?

A: Create a security group for the web servers allowing inbound traffic on port 443 from 0.0.0.0/0. Create a security group for MySQL servers allowing port 3306 from the web server security group.

B: Create network ACLs for the web servers allowing inbound traffic on port 443 from 0.0.0.0/0. Create network ACLs for MySQL servers allowing port 3306 from the web server security group.

C: Create a security group for the web servers allowing inbound traffic on port 443 from the load balancer. Create a security group for MySQL servers allowing port 3306 from the web server security group.

D: Create network ACLs for the web servers allowing inbound traffic on port 443 from the load balancer. Create network ACLs for MySQL servers allowing port 3306 from the web server security group.

load balancer -> web servers -> MySQL

Network ACL ：

Question 27 (Single Choice)

A payment processing company records all voice communications with customers and stores audio files in an Amazon S3 bucket. The company needs to capture text from the audio files and remove any Personally Identifiable Information (PII) from the text. How should the solutions architect meet these requirements?

A: Use Amazon Kinesis Video Streams to process the audio files. Use an AWS Lambda function to scan for known PII patterns.

B: When audio files are uploaded to the S3 bucket, invoke an AWS Lambda function to start an Amazon Textract job to analyze the transcripts.

C: Configure Amazon Transcribe jobs with PII redaction enabled. Invoke an AWS Lambda function to start transcription jobs when audio files are uploaded to the S3 bucket. Store the output in a separate S3 bucket.

D: Create an Amazon Connect contact flow that processes audio files with transcription enabled. Embed an AWS Lambda function to scan for known PII patterns. Use Amazon EventBridge (Amazon CloudWatch Events) to start the contact flow when audio files are uploaded to the S3 bucket.

Question 28 (Single Choice)

A company runs a multi-tier web application on AWS with an Amazon RDS for MySQL Multi-AZ DB instance. The RDS database is configured with the latest-generation DB instance and a 2,000 GB gp3 Amazon Elastic Block Store (EBS) volume. During peak demand, database performance affects the application. CloudWatch logs reveal that application performance degrades whenever read/write IOPS exceed 20,000. What should the solutions architect do to improve application performance?

A: Replace the volume with magnetic storage.

B: Increase the IOPS on the gp3 volume.

C: Replace the volume with a Provisioned IOPS SSD (io2) volume.

D: Replace the 2,000 GB gp3 volume with two 1,000 GB gp3 volumes.

EBS type：

Question 29 (Single Choice)

A company needs to transfer 600 TB of data from its on-premises network-attached storage (NAS) system to the AWS cloud within two weeks. The data is sensitive and must be encrypted during transit. The company's internet connection supports an upload speed of 100 Mbps. Which solution is the most cost-effective to meet these requirements?

A: Use Amazon S3 multipart upload to transfer the data over HTTPS.

B: Create a VPN connection between the on-premises NAS system and the nearest AWS Region. Transfer the data over the VPN connection.

C: Use the AWS Snow Family console to order multiple AWS Snowball Edge Storage Optimized devices. Transfer the data to Amazon S3 using these devices.

D: Establish a 10 Gbps AWS Direct Connect connection between the company location and the nearest AWS Region. Transfer the data over VPN to Amazon S3.

Question 30 (Multiple Choice)

A solutions architect wants to use the following JSON text as an identity-based policy to grant specific permissions. To which IAM principals can this policy be attached?

A: Roles

B: Groups

C: Organizations

D: Amazon ECS resources

E: Amazon EC2 resources

Question 31 (Single Choice)

A solutions architect is implementing a complex Java application with a MySQL database. The Java application must be deployed on Apache Tomcat and be highly available. What should the solutions architect do to meet these requirements?

A: Deploy the application in AWS Lambda. Configure an Amazon API Gateway API to connect to the Lambda function.

B: Use AWS Elastic Beanstalk to deploy the application. Configure a load-balanced environment with a rolling deployment strategy.

C: Migrate the database to Amazon ElastiCache. Configure ElastiCache security groups to allow access from the application.

D: Launch Amazon EC2 instances, install MySQL and Tomcat, and configure the application. Create an AMI and use it to launch an Auto Scaling group.

Question 32 (Single Choice)

A company wants to share accounting data with external auditors. The data is stored in an Amazon RDS database instance in a private subnet. The auditors have their own AWS accounts and require their own copy of the database. What is the most secure way for the company to share the database?

A: Create a read replica of the database. Configure IAM database authentication to grant auditors access.

B: Export the database contents to text files. Store the files in an Amazon S3 bucket. Create a new IAM user for the auditors and grant access to the S3 bucket.

C: Copy a snapshot of the database to an Amazon S3 bucket. Create an IAM user and share its credentials with the auditors to grant access to the bucket.

D: Create an encrypted snapshot of the database. Share the snapshot with the auditors and grant them access to the AWS Key Management Service (AWS KMS) encryption key.

Question 33 (Single Choice)

A company stores data in PDF format in an Amazon S3 bucket. To comply with legal requirements, the company must retain all new and existing data in Amazon S3 for seven years. Which solution meets these requirements with the least operational overhead?

A: Enable S3 Versioning for the bucket. Configure an S3 Lifecycle policy to delete data after seven years and require multi-factor authentication (MFA) for deletion.

B: Enable S3 Object Lock with governance mode for the bucket. Set the retention period to seven years. Re-upload all existing objects to comply with the requirement.

C: Enable S3 Object Lock with compliance mode for the bucket. Set the retention period to seven years. Re-upload all existing objects to comply with the requirement.

D: Enable S3 Object Lock with compliance mode for the bucket. Set the retention period to seven years. Use S3 Batch Operations to apply retention settings to existing data.

Question 34 (Single Choice)

A company wants to implement a backup strategy for Amazon EC2 data and multiple Amazon S3 buckets. Due to regulatory requirements, the company must retain backup files for a specific period, and files must not be altered during the retention period. Which solution meets these requirements?

A: Use AWS Backup to create a backup vault with a vault lock in governance mode. Create the required backup plans.

B: Use Amazon Data Lifecycle Manager to create the required automated snapshot policies.

C: Use Amazon S3 File Gateway to create backups and configure S3 lifecycle management.

D: Use AWS Backup to create a backup vault with a vault lock in compliance mode. Create the required backup plans.

Question 35 (Single Choice)

A company uses AWS Organizations to run workloads across multiple AWS accounts. When the company creates tags, tag policies add department tags to AWS resources. The accounting team needs to determine Amazon EC2 expenditures and identify which departments are responsible for the costs, regardless of the AWS account. The accounting team has access to AWS Cost Explorer for all accounts in the organization. What is the most efficient solution to meet these requirements?

A: From the organization’s management account billing console, activate a user-defined cost allocation tag called department. In Cost Explorer, create a cost report grouped by tag name and filter by EC2.

B: From the organization’s management account billing console, activate an AWS-defined cost allocation tag called department. In Cost Explorer, create a cost report grouped by tag name and filter by EC2.

C: From a member account billing console, activate a user-defined cost allocation tag called department. In Cost Explorer, create a cost report grouped by tag name and filter by EC2.

D: From a member account billing console, activate an AWS-defined cost allocation tag called department. In Cost Explorer, create a cost report grouped by tag name and filter by EC2.

Question 36 (Single Choice)

A company hosts an application on Amazon EC2 instances that saves orders to an Amazon Aurora database. Occasionally, during high traffic, the workload processes orders too slowly. What should the solutions architect do to reliably write orders to the database as quickly as possible?

A: During high traffic, increase the EC2 instance size and write orders to Amazon SNS. Subscribe the Aurora endpoint to the SNS topic.

B: Write orders to an Amazon SQS queue. Use EC2 instances in an Auto Scaling group behind an Application Load Balancer to process the orders from the SQS queue and write them to the database.

C: Write orders to Amazon SNS. Subscribe the Aurora endpoint to the SNS topic. Use EC2 instances in an Auto Scaling group behind an Application Load Balancer to read the SNS topic.

D: Write orders to an Amazon SQS queue when EC2 instances reach a CPU threshold. Use scheduled scaling for the Auto Scaling group to process the orders from the SQS queue.

Question 37 (Single Choice)

An IoT company is releasing a mattress with sensors to collect user sleep data. The sensors send data to an Amazon S3 bucket. Each mattress generates approximately 2 MB of data per night. The company needs to process and aggregate data for each mattress, with results published as quickly as possible. Data processing requires 1 GB of memory and completes within 30 seconds. What is the most cost-effective solution?

A: Use AWS Glue with a Scala job.

B: Use Amazon EMR with Apache Spark scripts.

C: Use AWS Lambda with Python scripts.

D: Use AWS Glue with a PySpark job.

Question 38 (Single Choice)

A solutions architect is designing an asynchronous application to process bank credit card data validation requests. The application must be secure and ensure at least once delivery of each request. What is the most cost-effective solution?

A: Use AWS Lambda event source mapping. Set an Amazon SQS Standard Queue as the event source. Use AWS Key Management Service (SSE-KMS) encryption. Add the KMS:Decrypt permission to the Lambda execution role.

B: Use AWS Lambda event source mapping. Set an Amazon SQS FIFO queue as the event source. Use SQS-managed encryption keys (SSE-SQS). Add the key permissions to the Lambda function.

C: Use AWS Lambda event source mapping. Set an Amazon SQS FIFO queue as the event source. Use AWS KMS keys (SSE-KMS). Add the KMS:Decrypt permission to the Lambda execution role.

D: Use AWS Lambda event source mapping. Set an Amazon SQS Standard Queue as the event source. Use AWS KMS keys (SSE-KMS). Add the key permissions to the Lambda function.

Question 39 (Single Choice)

A company is undergoing an internal audit. The company wants to ensure that its AWS Lake Formation data lake does not contain sensitive customer or employee data. The company wants to identify Personally Identifiable Information (PII) or financial data, including passport numbers and credit card numbers. Which solution meets these requirements?

A: Configure AWS Audit Manager for the account. Select the Payment Card Industry Data Security Standard (PCI DSS) for the audit.

B: Configure an Amazon S3 Inventory for the S3 bucket. Query the inventory using Amazon Athena.

C: Configure Amazon Macie to run a data discovery job using managed identifiers for the required data types.

D: Use Amazon S3 Select to run a report on the data in the S3 bucket.

Question 40 (Single Choice)

A company provides an API interface to its customers to retrieve financial information. The company expects increased requests during peak usage periods in the year. The API must consistently respond with low latency to ensure customer satisfaction. The company needs a compute host for the API. Which solution meets these requirements with the least operational overhead?

A: Use an Application Load Balancer with Amazon Elastic Container Service (Amazon ECS).

B: Use Amazon API Gateway with AWS Lambda functions and enable provisioned concurrency.

C: Use an Application Load Balancer with an Amazon Elastic Kubernetes Service (Amazon EKS) cluster.

D: Use Amazon API Gateway with AWS Lambda functions and reserved concurrency.

Question 41 (Single Choice)

A company needs to integrate with a third-party data source. When new data becomes available, the data source sends a webhook to notify external services. A developer has written an AWS Lambda function to retrieve the data when the company receives the webhook callback. The developer must make the Lambda function callable by the third party. Which solution will provide the MOST operational efficiency?

A: Create a function URL for the Lambda function and provide the function URL to the third party for the webhook.

B: Deploy an Application Load Balancer (ALB) in front of the Lambda function and provide the ALB URL to the third party for the webhook.

C: Create an Amazon Simple Notification Service (SNS) topic and attach it to the Lambda function. Provide the public hostname of the SNS topic to the third party for the webhook.

D: Create an Amazon Simple Queue Service (SQS) queue and connect it to the Lambda function. Provide the public hostname of the SQS queue to the third party for the webhook.

B (ALB + Lambda):

D (SQS + Lambda):

Question 42 (Single Choice)

An e-commerce company wants a disaster recovery solution for its Amazon RDS DB instance running Microsoft SQL Server Enterprise Edition. The company's recovery point objective (RPO) and recovery time objective (RTO) are 24 hours. Which solution will cost-effectively meet these requirements?

A: Create a cross-region read replica and promote it to the primary instance.

B: Use AWS Database Migration Service (AWS DMS) to create cross-region replication.

C: Use cross-region replication to copy native backups to an Amazon S3 bucket every 24 hours.

D: Copy automated snapshots to another region every 24 hours.

A (Cross-region read replica):

B (AWS DMS):

C (Cross-region replication to S3):

Question 43 (Single Choice)

A company is building a data analytics platform on AWS using AWS Lake Formation. The platform will ingest data from multiple sources, such as Amazon S3 and Amazon RDS. The company needs a secure solution to restrict access to sensitive portions of the data. Which solution will meet these requirements with the least operational overhead?

A: Create IAM roles that include permissions to access Lake Formation tables.

B: Create data filters to enforce row-level and cell-level security.

C: Create an AWS Lambda function to remove sensitive information before Lake Formation accesses the data.

D: Create an AWS Lambda function to query and delete sensitive information from Lake Formation tables regularly.

Question 44 (Single Choice)

A company uses Amazon Elastic Kubernetes Service (Amazon EKS) to run containerized applications. The EKS cluster stores sensitive information in Kubernetes secrets. The company wants to ensure that the information is encrypted. Which solution will meet these requirements with the least operational overhead?

A: Use AWS Key Management Service (AWS KMS) to encrypt the information within the containerized application.

B: Enable secrets encryption in the EKS cluster using AWS Key Management Service (AWS KMS).

C: Use AWS Key Management Service (AWS KMS) to implement an AWS Lambda function for encrypting the information.

D: Use AWS Systems Manager Parameter Store with AWS Key Management Service (AWS KMS) to encrypt the information.

A (KMS within the containerized application):

C (KMS + Lambda):

D (Systems Manager Parameter Store + KMS):

Question 45 (Single Choice)

A company wants to run a gaming application on Amazon EC2 instances in an Auto Scaling group in the AWS cloud. The application will use UDP packets to transmit data. The company wants to ensure that the application can scale up and down as traffic increases or decreases. What should the solutions architect do to meet these requirements?

A: Attach a Network Load Balancer to the Auto Scaling group.

B: Attach an Application Load Balancer to the Auto Scaling group.

C: Deploy an Amazon Route 53 weighted routing policy to direct traffic appropriately.

D: Deploy NAT instances configured with port forwarding to the EC2 instances in the Auto Scaling group.

B (Application Load Balancer):

C (Route 53 weighted routing policy):

D (NAT instances):

Question 46 (Single Choice)

A company operates multiple websites for its various brands on AWS. Each website generates tens of gigabytes of web traffic logs daily. A solutions architect must design a scalable solution for the company's developers to analyze traffic patterns for all websites. Developers will perform this analysis weekly on-demand over a few months. The solution must support SQL-based queries. Which solution will meet these requirements cost-effectively?

A: Store the logs in Amazon S3 and use Amazon Athena for analysis.

B: Store the logs in Amazon RDS and use a database client for analysis.

C: Store the logs in Amazon OpenSearch Service and use OpenSearch Service for analysis.

D: Store the logs in an Amazon EMR cluster and use a supported open-source framework for SQL-based analysis.

B (Amazon RDS):

C (Amazon OpenSearch Service):

D (Amazon EMR):

Question 47 (Multiple Choice)

A startup is serving its website to customers using Amazon EC2 instances. The website consists of a stateless Python application and a MySQL database. The website receives minimal traffic. The company is concerned about instance reliability and wants to migrate to a highly available architecture. The company cannot modify the application code. What combination of actions should the solutions architect take to achieve high availability for the website?

A: Provision an internet gateway in each available zone in use.

B: Migrate the database to an Amazon RDS for MySQL Multi-AZ DB instance.

C: Migrate the database to Amazon DynamoDB and enable DynamoDB auto-scaling.

D: Use AWS DataSync to synchronize database data between multiple EC2 instances.

E: Create an Application Load Balancer to distribute traffic to an Auto Scaling group of EC2 instances across two availability zones.

A (Provision an internet gateway in each available zone):

Question 48 (Single Choice)

A company uses Amazon EC2 instances and stores data on Amazon Elastic Block Store (Amazon EBS) volumes. The company must ensure that all data at rest is encrypted using AWS Key Management Service (AWS KMS) and must control the rotation of encryption keys. Which solution will meet these requirements with the least operational overhead?

A: Create a customer-managed key and use it to encrypt the EBS volumes.

B: Use AWS-managed keys to encrypt the EBS volumes and enable automatic key rotation.

C: Create an external KMS key with imported key material and use it to encrypt the EBS volumes.

D: Use AWS-owned keys to encrypt the EBS volumes.

B (AWS-managed keys):

C (External KMS key with imported key material):

D (AWS-owned keys):

Question 49 (Multiple Choice)

A company is migrating its multi-tier on-premises application to AWS. The application consists of a single-node MySQL database and a multi-node web tier. The company must minimize application changes during the migration and improve application resiliency afterward. What combination of steps will meet these requirements?

A: Migrate the web tier to Amazon EC2 instances in an Auto Scaling group behind an Application Load Balancer.

B: Migrate the database to Amazon EC2 instances in an Auto Scaling group behind a Network Load Balancer.

C: Migrate the database to an Amazon RDS Multi-AZ deployment.

D: Migrate the web tier to AWS Lambda functions.

E: Migrate the database to an Amazon DynamoDB table.

Question 50 (Single Choice)

An e-commerce website with unpredictable traffic uses AWS Lambda functions to directly access a private Amazon RDS for PostgreSQL DB instance. The company wants to maintain predictable database performance and ensure that Lambda invocations do not overload the database with too many connections. What should the solutions architect do to meet these requirements?

A: Point the client driver to the RDS custom endpoint and deploy the Lambda function inside the VPC.

B: Point the client driver to the RDS Proxy endpoint and deploy the Lambda function inside the VPC.

C: Point the client driver to the RDS custom endpoint and deploy the Lambda function outside the VPC.

D: Point the client driver to the RDS Proxy endpoint and deploy the Lambda function outside the VPC.

Question 51 (Single Choice)

A company wants to standardize its Amazon Elastic Block Store (Amazon EBS) volume encryption policy. The company also wants to minimize the cost and configuration effort required for checking encryption compliance. Which solution will meet these requirements?

A: Write API calls to describe EBS volumes and verify that they are encrypted. Use Amazon EventBridge to schedule an AWS Lambda function to run the API calls.

B: Write API calls to describe EBS volumes and verify that they are encrypted. Run the API calls in an AWS Fargate task.

C: Create an AWS Identity and Access Management (IAM) policy requiring tags for EBS volumes. Use AWS Cost Explorer to show untagged resources and manually encrypt untagged resources.

D: Create an AWS Config rule for Amazon EBS to evaluate whether volumes are encrypted and flag unencrypted volumes.

A (Lambda + EventBridge):

B (Fargate task):

C (IAM policy + Cost Explorer):

AWS Config provides

resource configuration monitoring,

compliance evaluation,

configuration history recording,

compliance reporting,

automated remediation triggering, (with AWS Systems Manager)

security auditing and compliance management.

Question 52 (Multiple Choice)

A company regularly uploads gigabyte-sized files to Amazon S3. After uploading the files, the company uses a set of Amazon EC2 Spot Instances to transcode the files. The company needs to scale throughput when uploading files from its on-premises data center to Amazon S3 and when downloading data from Amazon S3 to the EC2 instances. Which solutions will meet these requirements?

A: Use S3 bucket access points instead of direct access to the S3 bucket.

B: Upload files to multiple S3 buckets.

C: Use S3 multipart upload.

D: Perform parallel GET requests for byte ranges of objects.

E: Add a random prefix to each object when uploading files.

A (S3 bucket access points):

B (Multiple S3 buckets):

E (Add a random prefix):

Question 53 (Single Choice)

A company has a web application with an embedded NoSQL database. The application runs on Amazon EC2 instances behind an Application Load Balancer (ALB). The instances are part of an Amazon EC2 Auto Scaling group in a single Availability Zone. Recently, increased traffic has required the application to be highly available, with eventual consistency for the database. Which solution will meet these requirements with the least operational overhead?

A: Replace the ALB with a Network Load Balancer and maintain the embedded NoSQL database with its replication service on the EC2 instances.

B: Replace the ALB with a Network Load Balancer and migrate the embedded NoSQL database to Amazon DynamoDB using AWS Database Migration Service (AWS DMS).

C: Modify the Auto Scaling group to use EC2 instances across three Availability Zones and maintain the embedded NoSQL database with its replication service on the EC2 instances.

D: Modify the Auto Scaling group to use EC2 instances across three Availability Zones and migrate the embedded NoSQL database to Amazon DynamoDB using AWS Database Migration Service (AWS DMS).

Question 54 (Single Choice)

A company is building a microservices-based application that will be deployed on Amazon Elastic Kubernetes Service (Amazon EKS). The microservices will interact with each other. The company wants to ensure observability of the application to identify potential performance issues in the future. Which solution will meet these requirements?

A: Configure the application to use Amazon ElastiCache to reduce the number of requests sent to microservices.

B: Configure Amazon CloudWatch Container Insights to collect metrics from the EKS cluster. Configure AWS X-Ray to trace requests between the microservices.

C: Configure AWS CloudTrail to review API calls and build an Amazon QuickSight dashboard to observe microservice interactions.

D: Use AWS Trusted Advisor to gain insights into the performance of the application.

A (ElastiCache to reduce requests):

C (CloudTrail + QuickSight):

D (AWS Trusted Advisor):

Question 55 (Single Choice)

A solutions architect has created a VPC with two public subnets and two private subnets. Company security policy requires that all Amazon EC2 instances be launched in the private subnets. However, when the solutions architect launches EC2 instances running web servers on ports 80 and 443 in the private subnets, external internet traffic cannot reach the servers. What should the solutions architect do to resolve this issue?

A: Attach the EC2 instances to an Auto Scaling group in the private subnets and ensure the website's DNS record resolves to the Auto Scaling group identifier.

B: Deploy an internet-facing Application Load Balancer (ALB) in the public subnets. Add the EC2 instances to a target group associated with the ALB. Ensure the website's DNS record resolves to the ALB.

C: Launch a NAT gateway in the private subnets, update the private subnets' route table to add a default route to the NAT gateway, and attach a public Elastic IP address to the NAT gateway.

D: Ensure the security group attached to the EC2 instances allows HTTP traffic on port 80 and HTTPS traffic on port 443. Ensure the website's DNS record resolves to the EC2 instances' public IP addresses.

Question 56 (Single Choice)

A company has an on-premises application that uses Docker containers. The application runs on container hosts that store persistent data in volumes on the host machine. The containers access the persistent data stored on the volumes. The company wants to move the application to a fully managed service to avoid managing servers and storage infrastructure. Which solution will meet these requirements?

A: Use Amazon Elastic Kubernetes Service (Amazon EKS) with self-managed nodes. Create an Amazon Elastic Block Store (Amazon EBS) volume and attach it to the EC2 instances. Use the EBS volume as a persistent volume in the containers.

B: Use Amazon Elastic Container Service (Amazon ECS) with the AWS Fargate launch type. Create an Amazon Elastic File System (Amazon EFS) volume and attach it as persistent storage to the containers.

C: Use Amazon Elastic Container Service (Amazon ECS) with the AWS Fargate launch type. Create an Amazon S3 bucket and map it as persistent storage to the containers.

D: Use Amazon Elastic Container Service (Amazon ECS) with the Amazon EC2 launch type. Create an Amazon Elastic File System (Amazon EFS) volume and attach it as persistent storage to the containers.

Question 57 (Single Choice)

An online video gaming company must maintain ultra-low latency for its game servers. The game servers run on Amazon EC2 instances. The company needs a solution that can handle millions of UDP internet traffic requests per second. Which solution will meet these requirements cost-effectively?

A: Configure an Application Load Balancer with the required internet traffic protocols and ports. Specify the EC2 instances as targets.

B: Configure a Gateway Load Balancer for internet traffic protocols. Specify the EC2 instances as targets.

C: Configure a Network Load Balancer with the required internet traffic protocols and ports. Specify the EC2 instances as targets.

D: Launch a set of identical game servers in separate AWS Regions on EC2 instances. Route internet traffic to both sets of EC2 instances.

Question 58 (Multiple Choice)

A company runs a three-tier application in a private network. The database tier uses an Amazon RDS for MySQL DB instance. The company plans to migrate the RDS for MySQL database instance to an Amazon Aurora PostgreSQL DB cluster. The company needs a solution to replicate data changes that occur during the migration to the new database. Which combination of steps will meet these requirements?

A: Use AWS Database Migration Service (AWS DMS) schema conversion to convert database objects.

B: Use AWS Database Migration Service (AWS DMS) schema conversion to create an Aurora PostgreSQL read replica for the RDS for MySQL DB instance.

C: Configure an Aurora MySQL read replica for the RDS for MySQL DB instance.

D: Define an AWS Database Migration Service (AWS DMS) task with change data capture (CDC) to migrate the data.

E: Promote the Aurora PostgreSQL read replica to a standalone Aurora PostgreSQL DB cluster when replication lag is zero.

Question 59 (Single Choice)

A company hosts a database on an Amazon RDS instance deployed across multiple Availability Zones. The company periodically runs scripts against the database to report new entries added to the database. The scripts negatively affect the performance of critical applications using the database. The company needs a solution to improve application performance at the lowest cost. Which solution will meet these requirements with minimal operational overhead?

A: Add logic to the script to identify the least active instance. Configure the script to read from that instance to report the total number of new entries.

B: Create a read replica of the database. Configure the script to query only the read replica to report the total number of new entries.

C: Direct the development team to manually export new entries from the database at the end of each day.

D: Use Amazon ElastiCache to cache frequent queries run by the script against the database.

Question 60 (Single Choice)

A company is using an Application Load Balancer (ALB) to present its application to the internet. The company has identified abnormal traffic patterns accessing the application. A solutions architect needs to improve visibility into the infrastructure to help the company better understand these abnormalities. What is the MOST operationally efficient solution to meet these requirements?

A: Create a table in Amazon Athena for AWS CloudTrail logs. Query the logs for relevant information.

B: Enable ALB access logging to Amazon S3. Create a table in Amazon Athena and query the logs.

C: Enable ALB access logging to Amazon S3. Open each file in a text editor and search each line for relevant information.

D: Use Amazon EMR on dedicated Amazon EC2 instances to directly query the ALB traffic access logs for relevant information.

Question 61 (Single Choice)

A company wants to use a NAT gateway in its AWS environment. Amazon EC2 instances in a private subnet must connect to the public internet through the NAT gateway. Which solution will meet these requirements?

A: Create a public NAT gateway in the same private subnet as the EC2 instances.

B: Create a private NAT gateway in the same private subnet as the EC2 instances.

C: Create a public NAT gateway in a public subnet within the same VPC as the EC2 instances.

D: Create a private NAT gateway in a public subnet within the same VPC as the EC2 instances.

Question 62 (Single Choice)

An e-commerce company runs its application on AWS using an Amazon Aurora PostgreSQL cluster in Multi-AZ mode as the backend database. During a recent promotional event, the application experienced high read and write loads, causing users to encounter timeout issues. The solutions architect needs to make the application architecture more scalable and highly available with minimal downtime. Which solution will meet these requirements?

A: Create an Amazon EventBridge rule sourcing from the Aurora cluster, configure an AWS Lambda function to monitor Aurora status changes, and add read nodes for failover.

B: Modify the Aurora cluster and enable zero-downtime restart (ZDR) functionality. Use database activity streams to monitor cluster status.

C: Add additional read replicas to the Aurora cluster. Create an Amazon RDS Proxy target for the Aurora cluster.

D: Set up an Amazon ElastiCache Redis cluster for caching. Use AWS Database Migration Service (AWS DMS) to replicate data from Aurora to Redis.

Question 63 (Single Choice)

A manufacturing company runs a report-generating application on AWS. The application generates each report in about 20 minutes and runs as a monolithic application on a single Amazon EC2 instance. The application requires frequent updates to its tightly coupled modules. As the company adds new features, maintaining the application has become increasingly complex. Downtime occurs during software patching, and reports must restart from scratch after any interruptions. The company wants to redesign the application to make it flexible, scalable, and incrementally improvable, while minimizing downtime. Which solution will meet these requirements?

A: Run the application as a single function on AWS Lambda with maximum concurrency.

B: Run the application as microservices on Amazon EC2 Spot Instances with a Spot Fleet default allocation strategy.

C: Run the application as microservices on Amazon Elastic Container Service (Amazon ECS) with Service Auto Scaling.

D: Run the application on AWS Elastic Beanstalk as a single application environment with an all-at-once deployment strategy.

D: Run the application on AWS Elastic Beanstalk as a single application environment with an all-at-once deployment strategy.

Question 64 (Single Choice)

A company has an AWS Direct Connect connection from its on-premises location to its AWS account. The AWS account has 30 different VPCs in the same AWS Region, all using private virtual interfaces (VIFs). Each VPC has a unique CIDR block. The company wants to centralize network management while still allowing communication between VPCs and on-premises networks. Which solution will meet these requirements with minimal operational overhead?

A: Create a transit gateway and associate the Direct Connect connection with a new transit VIF. Enable route propagation on the transit gateway.

B: Create a Direct Connect gateway, reconfigure private VIFs to use the gateway, and associate each VPC by creating new virtual private gateways.

C: Create a transit VPC, connect Direct Connect to the transit VPC, create peering connections to all other VPCs in the Region, and update route tables.

D: Create site-to-site VPN connections from on-premises to each VPC, ensure both VPN tunnels per connection are active, and enable route propagation.

Question 65 (Single Choice)

A company is running containerized applications on Amazon Elastic Kubernetes Service (Amazon EKS). The workloads are inconsistent throughout the day. The solutions architect notices that when existing nodes in the cluster reach maximum capacity, the number of nodes does not automatically scale up, causing performance issues. Which solution will address this issue with minimal management overhead?

A: Scale nodes by monitoring memory usage.

B: Use the Kubernetes Cluster Autoscaler to manage the number of nodes in the cluster.

C: Use an AWS Lambda function to automatically resize the EKS cluster.

D: Use an Amazon EC2 Auto Scaling group to allocate workloads.

Question 66 (Single Choice)

The DNS provider hosting a company's domain records is experiencing downtime, causing service disruption for websites hosted on AWS. The company wants to migrate to a more resilient DNS hosting service that operates on AWS. What should the solutions architect do to quickly migrate DNS hosting?

A: Create an Amazon Route 53 public hosted zone for the domain and import the zone file containing the current provider’s domain records.

B: Create an Amazon Route 53 private hosted zone for the domain and import the zone file containing the current provider’s domain records.

C: Create a Simple AD directory in AWS. Enable zone transfers between the provider's DNS and AWS Directory Service for Microsoft Active Directory.

D: Create an Amazon Route 53 Resolver inbound endpoint in the VPC. Specify the provider's DNS to forward DNS queries to the endpoint's IP address and configure the provider to forward queries to Route 53 Resolver.

Question 67 (Single Choice)

A company is building an application on AWS that connects to an Amazon RDS database. The company wants to manage application configurations and securely store and retrieve database and other service credentials. Which solution will meet these requirements with the least management overhead?

A: Use AWS AppConfig to store and manage application configurations and AWS Secrets Manager to store and retrieve credentials.

B: Use AWS Lambda to store and manage application configurations and AWS Systems Manager Parameter Store to store and retrieve credentials.

C: Store encrypted application configuration files in Amazon S3 and use separate S3 files to store and retrieve credentials.

D: Use AWS AppConfig to store and manage application configurations and Amazon RDS to store and retrieve credentials.

Question 68 (Single Choice)

A company has an AWS Organization with 10 AWS accounts and thousands of employees. The company wants to provide employees access to the accounts using an existing identity provider (IdP). Which solution will meet these requirements?

A: Create IAM users for employees in the required AWS accounts and connect the IAM users to the existing IdP for federated authentication.

B: Use the email addresses and passwords synchronized from the existing IdP to set up AWS account root users.

C: Configure AWS IAM Identity Center (AWS Single Sign-On) and connect it to the existing IdP. Use the existing IdP to configure user and group access.

D: Use AWS Resource Access Manager (AWS RAM) to share access to AWS accounts with users in the existing IdP.

Question 69 (Single Choice)

A company has a global user base accessing an HTTP-based application hosted on Amazon EC2 instances in multiple AWS Regions. The company wants to improve the application's availability and performance while protecting it from common network attacks that could affect availability, security, or resource consumption. Static IP addresses are required. What should the solutions architect recommend?

A: Place the EC2 instances behind Network Load Balancers (NLBs) in each Region. Deploy AWS WAF on the NLBs. Use AWS Global Accelerator to create an accelerator and register the NLBs as endpoints.

B: Place the EC2 instances behind Application Load Balancers (ALBs) in each Region. Deploy AWS WAF on the ALBs. Use AWS Global Accelerator to create an accelerator and register the ALBs as endpoints.

C: Place the EC2 instances behind NLBs in each Region. Deploy AWS WAF on the NLBs. Create an Amazon CloudFront distribution with Route 53 latency-based routing pointing to the NLBs.

D: Place the EC2 instances behind ALBs in each Region. Create a CloudFront distribution with Route 53 latency-based routing pointing to the ALBs. Deploy AWS WAF on the CloudFront distribution.

Question 70 (Single Choice)

A company’s data platform uses an Amazon Aurora MySQL database with multiple read replicas and database instances across different Availability Zones. Users have recently reported database errors indicating too many connections. The company wants to reduce the failover time when promoting read replicas to the primary writer by 20%. Which solution will meet this requirement?

A: Switch from Aurora to Amazon RDS using Multi-AZ cluster deployment.

B: Use Amazon RDS Proxy in front of the Aurora database.

C: Switch to Amazon DynamoDB using DynamoDB Accelerator (DAX) for read connections.

D: Migrate to Amazon Redshift with relocation functionality.

Question 71 (Single Choice)

A development team is collaborating with another company to create an integrated product. The other company needs access to an Amazon Simple Queue Service (Amazon SQS) queue in the development team's account. The other company wants to poll the queue without relinquishing control of its own account permissions. How should the solutions architect provide access to the SQS queue?

A: Create an instance profile to provide the other company access to the SQS queue.

B: Create an IAM policy to provide the other company access to the SQS queue.

C: Create an SQS access policy to provide the other company access to the SQS queue.

D: Create an Amazon Simple Notification Service (Amazon SNS) access policy to provide the other company access to the SQS queue.

Question 72 (Single Choice)

A company’s application is deployed on Amazon EC2 instances and uses AWS Lambda functions for its event-driven architecture. The company uses a non-production development environment in a separate AWS account to test new features before deploying them to production. The production environment serves customers globally and is used continuously, while the non-production environment is used only during business hours on weekdays and is idle during weekends. The company wants to optimize costs for running its application on AWS. Which solution will be the most cost-effective?

A: Use On-Demand Instances for production and Dedicated Hosts for non-production during weekends.

B: Use Reserved Instances for both production and non-production and stop non-production instances when idle.

C: Use Compute Savings Plans for production and On-Demand Instances for non-production, stopping non-production instances when idle.

D: Use Dedicated Hosts for production and EC2 Instance Savings Plans for non-production.

Question 73 (Single Choice)

A company stores its data in an on-premises Oracle relational database and needs to make the data available for analysis in Amazon Aurora PostgreSQL. The company uses an AWS Site-to-Site VPN connection to connect its on-premises network to AWS. The company must capture changes that occur in the source database during migration to Aurora PostgreSQL. Which solution will meet these requirements?

A: Use the AWS Schema Conversion Tool (AWS SCT) to convert the Oracle schema to an Aurora PostgreSQL schema. Use an AWS Database Migration Service (AWS DMS) full-load migration task to migrate the data.

B: Use AWS DataSync to migrate the data to an Amazon S3 bucket. Use the aws_s3 extension in Aurora PostgreSQL to import the data from S3.

C: Use the AWS Schema Conversion Tool (AWS SCT) to convert the Oracle schema to an Aurora PostgreSQL schema. Use AWS Database Migration Service (AWS DMS) to migrate existing data and capture ongoing changes.

D: Use an AWS Snowball device to migrate the data to an Amazon S3 bucket. Use the aws_s3 extension in Aurora PostgreSQL to import the data from S3.

Question 74 (Single Choice)

An e-commerce company is conducting a seasonal online sale. The company hosts its website on Amazon EC2 instances spanning multiple Availability Zones. The company wants its website to handle sudden spikes in traffic during the sale efficiently. Which solution will meet these requirements cost-effectively?

A: Create an Auto Scaling group large enough to handle peak traffic loads and stop one Amazon EC2 instance. Configure the Auto Scaling group to scale using the stopped instance during traffic surges.

B: Create an Auto Scaling group for the website and set its minimum size high enough to handle peak traffic without scaling.

C: Use Amazon CloudFront and Amazon ElastiCache to cache dynamic content, and set the Auto Scaling group as the origin. Configure the Auto Scaling group to scale up only after the caches are fully populated.

D: Configure an Auto Scaling group to scale out as traffic increases. Create a launch template to start new instances from a pre-configured Amazon Machine Image (AMI).

Question 75 (Single Choice)

A solutions architect must implement an automated solution to enforce the company's compliance policy. The policy states that security groups must not allow SSH access from 0.0.0.0/0. If any violations occur, the company must be notified. What should the solutions architect do to meet these requirements with minimal operational overhead?

A: Write an AWS Lambda script to monitor security groups for open SSH access to 0.0.0.0/0 and create a notification each time it is found.

B: Apply the restricted SSH AWS Config managed rule and generate an Amazon Simple Notification Service (Amazon SNS) notification when the rule is non-compliant.

C: Create an IAM role that has permissions to globally open security groups and network ACLs. Create an Amazon Simple Notification Service (Amazon SNS) topic to generate notifications whenever the role is assumed.

D: Configure a service control policy (SCP) to prevent non-administrator users from creating or editing security groups. Generate a ticket system notification when users request rules requiring administrator access.

Question 148 (Single Choice)

Q1013

A company’s production environment consists of Amazon EC2 On-Demand Instances. These instances run continuously from Monday to Saturday and for only 12 hours on Sundays. Interruptions are not acceptable. The company wants to cost-optimize its production environment. What solution is the most cost-effective?

Options:

A. Purchase Scheduled Reserved Instances for the EC2 instances running only 12 hours on Sundays. Purchase Standard Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

B. Purchase Convertible Reserved Instances for the EC2 instances running only 12 hours on Sundays. Purchase Standard Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

C. Use Spot Instances for the EC2 instances running only 12 hours on Sundays. Purchase Standard Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

D. Use Spot Instances for the EC2 instances running only 12 hours on Sundays. Purchase Convertible Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

Question 149 (Multiple Choice)

Q1006

A company uses AWS Systems Manager to manage and patch Amazon EC2 instances daily. The EC2 instances are in an IP address-type target group behind an Application Load Balancer (ALB). A new security protocol requires the company to remove EC2 instances from service during patching. When the company followed this protocol during a patching window, it received errors. What combination of actions resolves the errors?

Options:

A. Change the target type of the target group from IP address type to instance type.

B. Continue using the existing Systems Manager documents without any changes, as they are optimized for instances in IP address-type target groups behind an ALB.

C. Implement the AWSEC2-PatchLoadBalancerInstance Systems Manager Automation document to manage the patching process.

D. Use Systems Manager Maintenance Windows to automatically remove instances from service for patching.

E. Configure Systems Manager State Manager to remove instances from service and manage the patching schedule. Use ALB health checks to reroute traffic.

AWS Systems Manager Documents (SSM Documents)

AWS Systems Manager Maintenance Windows

AWS Systems Manager State Manager

AWS Systems Manager Automation Documents (e.g., AWSEC2-PatchLoadBalancerInstance)

Target Groups (IP Address Type)

Question 150 (Single Choice)

Q1001

A company provides food delivery services. Due to recent growth, its order processing system experiences scaling issues during peak periods. The current architecture includes an Auto Scaling group of Amazon EC2 instances that collect orders. A second Auto Scaling group of EC2 instances processes orders. Order collection occurs quickly, but order fulfillment can take longer. Data must not be lost during scaling events. The solutions architect must ensure both the order collection and fulfillment processes scale adequately during peak traffic periods. What solution meets these requirements?

Options:

A. Monitor the CPUUtilization metric of each instance in both Auto Scaling groups using Amazon CloudWatch. Configure the minimum capacity of each Auto Scaling group to meet peak workload values.

B. Monitor the CPUUtilization metric of each instance in both Auto Scaling groups using Amazon CloudWatch. Configure CloudWatch alarms to invoke an Amazon Simple Notification Service (Amazon SNS) topic to create additional Auto Scaling groups as needed.

C. Use two Amazon Simple Queue Service (Amazon SQS) queues. Use one SQS queue for order collection and another for order fulfillment. Configure EC2 instances to poll their respective queues. Scale Auto Scaling groups based on notifications sent by the queues.

D. Use two Amazon Simple Queue Service (Amazon SQS) queues. Use one SQS queue for order collection and another for order fulfillment. Configure EC2 instances to poll their respective queues. Scale Auto Scaling groups based on the number of messages in each queue.

Question 76 (Single Choice)

Q825

A company has hired an external vendor to perform work in the company’s AWS account. The vendor uses its automation tools hosted in its own AWS account. The vendor has requested access to the company’s AWS account to complete their tasks. Which solution most securely meets these requirements?

Options:

A. Create an IAM role in the company's account to allow access to the vendor's IAM role. Attach the appropriate IAM policies to the role for the permissions required by the vendor.

B. Create an IAM user in the company's account with a password that meets complexity requirements. Attach the appropriate IAM policies to the user for the permissions required by the vendor.

C. Create an IAM role in the company's account. Add the automation tool’s IAM user from the vendor account to a group. Attach the appropriate IAM policies to the group for the permissions required by the vendor.

D. Create an IAM user in the company’s account with a permissions boundary to restrict access. Attach the appropriate IAM policies to the user for the permissions required by the vendor.

Question 77 (Single Choice)

Q826

A company wants to run its lab workloads in the AWS Cloud. The company has a cloud spending budget. The company's CFO is concerned about accountability for cloud spending in each department. The CFO wants to receive a notification when spending exceeds 60% of the budget. What solution should the architect recommend to meet these requirements?

Options:

A. Tag resources on AWS with cost allocation tags to identify owners. Create usage budgets in AWS Budgets and set up an alert threshold to receive a notification when spending exceeds 60% of the budget.

B. Use AWS Cost Explorer to forecast resource usage and identify resource owners. Use AWS Cost Anomaly Detection to create alert notifications when spending exceeds 60% of the budget.

C. Tag resources on AWS with cost allocation tags to identify owners. Use the AWS Support API with AWS Trusted Advisor to create alert notifications when spending exceeds 60% of the budget.

D. Use AWS Cost Explorer to forecast resource usage and identify resource owners. Create usage budgets in AWS Budgets and set up an alert threshold to receive a notification when spending exceeds 60% of the budget.

Question 78 (Multiple Choice)

Q827

A company's web application hosted on AWS is becoming increasingly popular. The web application is currently on a single Amazon EC2 instance in a single public subnet. The web application cannot handle the growing web traffic demand. The company needs a solution to provide high availability and scalability to meet increasing customer demands without rewriting the web application or coupling multiple steps to meet these requirements.

Options (Choose two):

A. Replace the EC2 instance with a larger compute-optimized instance.

B. Configure an Amazon EC2 Auto Scaling group with multiple Availability Zones in a private subnet.

C. Configure a NAT gateway in a public subnet to handle web requests.

D. Replace the EC2 instance with a larger memory-optimized instance.

E. Configure an Application Load Balancer in a public subnet to distribute web traffic.

Question 79 (Single Choice)

Q828

A company uses AWS Lambda functions with environment variables. The company wants to ensure that developers cannot see the environment variables in plain text. What solution will meet these requirements?

Options:

A. Deploy the code to Amazon EC2 instances instead of using Lambda functions.

B. Configure SSL encryption on the Lambda function to encrypt environment variables using the AWS CloudHSM repository.

C. Create a certificate in AWS Certificate Manager (ACM) and configure the Lambda function to use the certificate to encrypt environment variables.

D. Create an AWS Key Management Service (AWS KMS) key. Enable encryption helpers on the Lambda function to store and encrypt environment variables using the KMS key.

Question 80 (Single Choice)

Q829

A company needs a solution to prevent photos with unwanted content from being uploaded to its website application. The solution must not involve machine learning (ML) models. What solution will meet these requirements?

Options:

A. Use Amazon SageMaker Autopilot to create a pipeline model and a real-time endpoint. Configure the web application to call the endpoint when photos are uploaded.

B. Create an AWS Lambda function that uses Amazon Rekognition to detect unwanted content. Create a Lambda function URL that the web application calls when photos are uploaded.

C. Create an Amazon CloudFront function that uses Amazon Comprehend to detect unwanted content and associate it with the web application.

D. Create an AWS Lambda function that uses Amazon Rekognition Video to detect unwanted content. Create a Lambda function URL that the web application calls when photos are uploaded.

Question 81 (Single Choice)

Q830

A company uses AWS for its e-commerce platform, which is critical to its operations. The platform handles high traffic and transaction volumes. The company has configured a multi-factor authentication (MFA) device to protect the root user credentials of the AWS account. The company wants to ensure it does not lose access to the root user account if the MFA device is lost. What solution will meet this requirement?

Options:

A. Set up a backup administrator account that the company can use to log in if the MFA device is lost.

B. Add multiple MFA devices to the root user account for disaster scenarios.

C. Create a new administrator account if the company cannot access the root account.

D. Attach an administrator policy to another IAM user if the company cannot access the root account.

Question 82 (Single Choice)

Q831

A company needs to create an AWS Lambda function that will run in the VPC of the company's primary AWS account. The Lambda function must access an Elastic File System (Amazon EFS) file store located in the VPC of a secondary account. The solution must scale to meet demand. What solution will efficiently meet these requirements?

Options:

A. Create a new EFS file system in the primary account. Use AWS DataSync to copy the data from the original EFS file system to the new file system.

B. Establish a VPC peering connection between the VPCs in the primary and secondary accounts.

C. Create a second Lambda function in the secondary account with file system permissions. Use the Lambda function in the primary account to invoke the Lambda function in the secondary account.

D. Move the contents of the file system to a Lambda layer and configure the layer permissions to allow the secondary account to use it.

Question 83 (Single Choice)

Q832

A solutions architect is designing a user authentication solution for a company. The solution must provide enhanced security authentication for users logging in from consistent geographical locations, IP addresses, or devices. The solution must also provide support for user authentication in a fault-tolerant manner. What solution will meet these requirements?

Options:

A. Configure Amazon Cognito user pools for user authentication. Use risk-based adaptive authentication.

B. Configure Amazon Cognito identity pools for user authentication. Use static multi-factor authentication (MFA).

C. Configure AWS Identity and Access Management (IAM) for user authentication. Attach an IAM policy with the AllowManageOwnUserMFA action.

D. Configure AWS IAM Identity Center (AWS Single Sign-On) for user authentication. Configure permission sets to require MFA.

Question 84 (Single Choice)

Q833

A company has an Amazon S3 data lake. The company needs a solution to transform data from the data lake daily and load it into a data warehouse. The data warehouse must support massively parallel processing (MPP). Data analysts then need to use SQL commands to create and train machine learning (ML) models. The solution must use serverless AWS services with no maintenance required. What solution will meet these requirements?

Options:

A. Run an Amazon EMR job daily to transform and load data into Amazon Redshift. Use Amazon Redshift ML to create and train ML models.

B. Run an Amazon EMR job daily to transform and load data into Amazon Redshift. Use Amazon Aurora Serverless with Amazon Aurora ML to create and train ML models.

C. Run an AWS Glue job daily to transform data and load it into Amazon Redshift Serverless. Use Amazon Redshift ML to create and train ML models.

D. Run an AWS Glue job daily to transform data and load it into Amazon Athena tables. Use Amazon Athena ML to create and train ML models.

Question 85 (Single Choice)

Q834

A company runs servers in a Kubernetes environment in its on-premises data center. The company wants to use Amazon's managed Kubernetes service (Amazon EKS) and other AWS-managed services. Data must remain on-premises in the company's data center and cannot be stored at any remote site or in the cloud to maintain compliance. What solution will meet these requirements?

Options:

A. Deploy an AWS Local Zone in the company's data center.

B. Use AWS Snowmobile in the company's data center.

C. Install an AWS Outposts rack in the company's data center.

D. Install an AWS Snowball Edge Storage Optimized node in the data center.

Question 86 (Single Choice)

Q850

A company has a workload that collects and processes data. The workload stores the data in on-premises AWS S3 storage. The growth rate of data storage cannot meet the company's scaling requirements. The company needs to transfer its existing data to AWS. What solution will cost-effectively meet these requirements?

Options:

A. Set up an AWS Storage Gateway Volume Gateway. Use Amazon S3 lifecycle policies to transition data to the appropriate storage class.

B. Set up an AWS Transfer Gateway between Amazon S3 and the workload. Use Amazon S3 lifecycle policies to transition data to the appropriate storage class.

C. Use the Amazon Elastic File System (Amazon EFS) Standard-Infrequent Access (Standard-IA) storage class and activate lifecycle policies for infrequent access.

D. Use the Amazon Elastic File System (Amazon EFS) One Zone-Infrequent Access (One Zone-IA) storage class and activate lifecycle policies for infrequent access.

Question 87 (Single Choice)

Q851

A company uses AWS Batch jobs to run its daily sales reports. When an AWS Batch job succeeds, the solution architect must publish the job completion event to a third-party application. The third-party application has an HTTP API interface that uses username and password credentials. What solution will meet these requirements?

Options:

A. Configure an Amazon EventBridge rule to match incoming AWS Batch job SUCCEEDED events. Configure the third-party API as a target for the EventBridge rule, using the username and password credentials.

B. Configure Amazon EventBridge Scheduler to match incoming AWS Batch job SUCCEEDED events. Configure an AWS Lambda function to call the third-party API with the username and password credentials, and set the Lambda function as the target of the EventBridge rule.

C. Configure AWS Batch jobs to publish job completion events to an AWS API Gateway REST API. Configure an HTTP proxy integration on the API Gateway REST API to call the third-party API with the username and password credentials.

D. Configure AWS Batch jobs to publish job completion events to an AWS API Gateway REST API. Configure the API Gateway REST API with either proxy integration or a Lambda function. Configure the Lambda function to call the third-party API with the username and password credentials.

Question 88 (Multiple Choice)

Q852

A company receives data from suppliers for collection and processing. The suppliers store their data in an Amazon RDS for MySQL database in their own AWS account. The company's private network does not have an internet gateway, AWS Direct Connect, or an AWS Site-to-Site VPN connection. The company needs to access data in the suppliers' databases. What solutions will meet these requirements?

Options (Choose two):

A. Configure an AWS-managed accelerator connection plan on the supplier's end. Use private network peering to connect the company's private network to the supplier's private network.

B. Configure a client VPN connection between the company's private network and the supplier's private network. Use private network peering to connect the two networks.

C. Configure a Network Load Balancer (NLB) on the supplier's end in front of the Amazon RDS for MySQL database. Use AWS PrivateLink to integrate the company's private network and the supplier's private network.

D. Use an AWS Transit Gateway to integrate the company's private network and the supplier's private network. Use private network peering to connect the two networks.

Question 89 (Single Choice)

Q853

A company hosts its platform on Amazon EC2 instances behind Network Load Balancers (NLB) in multiple AWS Regions. The NLB routes requests from the internet to the target instances. The company wants to reduce latency and improve response times for its global users to enhance the customer experience. What solution will meet these requirements?

Options:

A. Create Application Load Balancers (ALBs) in each Region to replace the existing NLBs. Register the existing EC2 instances as targets for the ALBs in each Region.

B. Configure Amazon Route 53 to route traffic to NLBs in each Region with equal weighting.

C. Create additional NLBs and ECS instances in other Regions where the company has significant customer bases.

D. Create a Global Accelerator in AWS Global Accelerator. Configure the existing NLBs as target group endpoints for the accelerator.

Question 90 (Single Choice)

Q854

A company has an on-premises application that uses SFTP to collect financial data from multiple suppliers. The company is migrating to the AWS Cloud. The company has created an application that uses Amazon S3 APIs and secure transfer protocols. Some suppliers operate legacy applications that do not support SFTP. Suppliers want to continue using their SFTP-based applications to upload files. The company wants to minimize management and operational overhead. What solution will meet these requirements?

Options:

A. Create an AWS Database Migration Service (AWS DMS) instance to replicate data from the suppliers' storage to Amazon S3. Provide the AWS DMS instance's URL to the suppliers.

B. Create AWS Transfer Family endpoints for suppliers that use legacy applications.

C. Configure an Amazon EC2 instance to run an SFTP server. Instruct suppliers using legacy applications to upload data to the SFTP server.

D. Configure an Amazon S3 File Gateway to allow suppliers to upload files to an SMB file share using their legacy applications.

Question 91 (Single Choice)

Q903

A marketing team wants to create an event for multiple upcoming sports events. The team has PDF-format news reports from the past five years. The team needs a solution to extract insights about the content and sentiment of the news reports. The solution must use Amazon Textract to process the reports. What solution will meet these requirements with minimal operational overhead?

Options:

A. Provide extracted insights to Amazon Athena for analysis. Store the insights and analysis in an Amazon S3 bucket.

B. Store the extracted insights in an Amazon DynamoDB table. Use Amazon SageMaker to build sentiment models.

C. Provide extracted insights to Amazon Comprehend for analysis. Save the analysis results in an Amazon S3 bucket.

D. Store the extracted insights in an Amazon S3 bucket. Use Amazon QuickSight to visualize and analyze the data.

Question 92 (Single Choice)

Q904

A company is migrating a legacy application from an on-premises data center to AWS. The application relies on hundreds of cron jobs that run on varying schedules throughout the day, ranging from 1 to 20 minutes. The company wants a solution to schedule and run cron jobs on AWS with minimal refactoring. The solution must also support future events. What solution will meet these requirements?

Options:

A. Create container images for the cron jobs. Use Amazon EventBridge Scheduler to create periodic schedules. Run cron job tasks as AWS Lambda functions.

B. Create container images for the cron jobs. Use AWS Batch on Amazon Elastic Container Service (Amazon ECS) with scheduling policies to run the cron jobs.

C. Create container images for the cron jobs. Use Amazon EventBridge Scheduler to create periodic schedules. Run the cron job tasks on AWS Fargate.

D. Create container images for the cron jobs. Create workflows in AWS Step Functions with Wait states to run the cron jobs at specified times. Use the RunTask operation to run the cron jobs on AWS Fargate.

Question 93 (Single Choice)

Q1

A company has 15 employees. The company stores the employees' start dates in an Amazon DynamoDB table. The company wants to send an email to each employee on their work anniversary. What solution will meet these requirements with the MOST operational efficiency?

Options:

A. Create a script that scans the DynamoDB table and uses Amazon Simple Notification Service (Amazon SNS) to send emails to employees as needed. Run the script daily on an Amazon EC2 instance using a cron job.

B. Create a script that scans the DynamoDB table and uses Amazon Simple Queue Service (Amazon SQS) to send emails to employees as needed. Run the script daily on an Amazon EC2 instance using a cron job.

C. Create an AWS Lambda function that scans the DynamoDB table and uses Amazon Simple Notification Service (Amazon SNS) to send emails to employees as needed. Schedule the Lambda function to run daily.

D. Create an AWS Lambda function that scans the DynamoDB table and uses Amazon Simple Queue Service (Amazon SQS) to send emails to employees as needed. Schedule the Lambda function to run daily.

Question 94 (Single Choice)

Q2

An application running on an Amazon EC2 instance in VPC-A needs to access files on another EC2 instance in VPC-B. The two VPCs are in separate AWS accounts. A network administrator needs to design a solution to ensure secure access from VPC-A to the EC2 instance in VPC-B. The connection should have no single point of failure or bandwidth limitations. What solution will meet these requirements?

Options:

A. Establish a VPC peering connection between VPC-A and VPC-B.

B. Set up a VPC gateway endpoint for the EC2 instance running in VPC-B.

C. Establish a Site-to-Site VPN connection to VPC-B from VPC-A.

D. Set up routing to create a private virtual interface (VIF) to the EC2 instance running in VPC-B and add appropriate routes from VPC-A.

Question 95 (Single Choice)

Q3

Over the past 3 months, a company has migrated several applications to AWS. The company wants to know the cost breakdown for these applications and receive regular reports containing this information. What solution will most cost-effectively meet these requirements?

Options:

A. Use AWS Budgets to download data from the past 3 months into a CSV file and find the necessary information.

B. Load the AWS Cost and Usage Report into an Amazon RDS DB instance and run SQL queries to retrieve the necessary information.

C. Tag all AWS resources with cost keys and application name values. Activate cost allocation tags and use Cost Explorer to obtain the necessary information.

D. Tag all AWS resources with cost keys and application name values. Use the past 3 months' AWS Billing and Cost Management console invoices to find the necessary information.

Question 96 (Single Choice)

Q4

A company has two VPCs located in the same AWS account and within the us-west-2 Region. The company needs to allow network traffic between these VPCs. Approximately 500 GB of data will be transferred between the VPCs each month. What is the most cost-effective solution to connect these VPCs?

Options:

A. Implement an AWS Transit Gateway to connect the VPCs. Update each VPC’s route table to use the transit gateway for inter-VPC communication.

B. Implement an AWS Site-to-Site VPN tunnel between the VPCs. Update each VPC’s route table to use the VPN tunnel for inter-VPC communication.

C. Establish a VPC peering connection between the VPCs. Update each VPC’s route table to use the VPC peering connection for inter-VPC communication.

D. Set up a 1 Gbps AWS Direct Connect connection between the VPCs. Update each VPC’s route table to use the Direct Connect connection for inter-VPC communication.

Question 97 (Single Choice)

Q5

A company runs its production workloads on an Amazon Aurora MySQL database cluster with six Aurora Replicas. The company wants one department’s near real-time reporting queries to be automatically distributed to three specific Aurora Replicas. The compute and memory specifications of these three replicas differ from the other replicas in the cluster. What solution meets these requirements?

Options:

A. Create and use a custom endpoint for the workload.

B. Create a three-node cluster clone and use the reader endpoint.

C. Use the instance endpoints of any of the three selected nodes.

D. Use the reader endpoint to automatically distribute the read-only workload.

Question 98 (Single Choice)

Q5

A company runs applications within an organization in AWS Organizations. The company outsources operational support for the applications. The company needs to provide external support engineers with access in a secure manner. External support engineers need access to the AWS Management Console and operating system access to Amazon Linux EC2 instances running in a private subnet. What solution most securely meets these requirements?

Options:

A. Ensure that the AWS Systems Manager Agent (SSM Agent) is installed on all instances. Assign the necessary policies to the instance profile to connect to Systems Manager. Use AWS IAM Identity Center to provide console access to the external support engineers and assign the required permissions using Systems Manager Session Manager.

B. Ensure that the AWS Systems Manager Agent (SSM Agent) is installed on all instances. Assign the necessary policies to the instance profile to connect to Systems Manager. Provide each external support engineer with local IAM user credentials in each AWS account for console access.

C. Ensure all instances have a security group that allows SSH access only from the external support engineers' source IP address range. Provide each external support engineer with local IAM user credentials for console access and an SSH key pair for logging into application instances.

D. Create a bastion host in a public subnet. Set up the bastion host's security group to allow access only from the external engineers' IP address range. Ensure all instances have a security group allowing SSH access from the bastion host. Provide each external support engineer with an SSH key pair for logging into application instances and local IAM user credentials for console access.

Question 99 (Single Choice)

Q6

A solutions architect needs to connect the company’s enterprise network to its VPC to enable on-premises access to AWS resources. The solution must encrypt all traffic between the company’s network and the VPC at the network and session layers. It must also provide security controls to prevent unrestricted access between AWS and on-premises systems. What solution meets these requirements?

Options:

A. Configure AWS Direct Connect to connect to the VPC. Configure VPC route tables to allow and deny traffic between AWS and on-premises as needed.

B. Create an IAM policy that allows access to the AWS Management Console only from a defined set of company IP addresses. Use IAM policies and roles to restrict user access based on job roles.

C. Configure AWS Site-to-Site VPN to connect to the VPC. Configure route table entries and security groups to allow on-premises traffic and enforce access controls.

D. Configure an AWS Transit Gateway to connect to the VPC. Configure route table entries and security groups to allow on-premises traffic and enforce access controls.

Question 100 (Single Choice)

Q7

A company has a portal where employees log in to view payroll and other information. The company is developing a new system to allow employees to upload scanned documents for reimbursement. The company runs a program that extracts text-based data from the documents and attaches the extracted information to each employee's reimbursement for processing. The employee portal must have 100% uptime. The document extraction program runs infrequently during the day. The company wants to build a scalable and cost-effective solution with minimal changes to the existing portal. What solution meets these requirements?

Options:

A. Run the portal in an Auto Scaling group of Amazon EC2 On-Demand instances. Use an AWS Lambda function for the document extraction program and invoke it when employees upload reimbursement documents.

B. Run the portal in an Auto Scaling group of Amazon EC2 Spot Instances. Run the document extraction program on the Spot Instances and invoke the program when employees upload reimbursement documents.

C. Purchase a Savings Plan for running the portal and the document extraction program. Run both the portal and the document extraction program in an Auto Scaling group.

D. Host the portal in an Amazon S3 bucket. Use Amazon API Gateway and AWS Lambda functions for existing functionality. Use a Lambda function for the document extraction program and invoke it when an API call for a new document upload is made.

Question 101 (Single Choice)

Q8

A company in the Asia-Pacific region has thousands of AWS Outposts servers deployed at remote locations worldwide. These servers regularly download software updates consisting of 100 files. There is a noticeable opportunity for cost savings if the servers are stopped during periods of inactivity. What steps should the company take to minimize cost and delay while meeting the requirement?

Options:

A. Create an Amazon S3 bucket in ap-northeast-1. Set up an Amazon CloudFront distribution with CachingDisabled as a policy attribute. Configure the S3 bucket as the origin and use signed URLs to download the software.

B. Create an Amazon S3 bucket in ap-northeast-1. Configure cross-bucket replication and set up a CloudFront distribution with ap-northeast-1 as the primary source and us-east-1 as the secondary source. Use signed URLs to download the software.

C. Create an Amazon S3 bucket in ap-northeast-1. Configure Amazon S3 Transfer Acceleration and use the Transfer Acceleration endpoint to download the software.

D. Create an Amazon S3 bucket in ap-northeast-1. Configure a CloudFront distribution and use the S3 bucket as the origin. Use signed URLs to download the software.

Question 102 (Single Choice)

Q9

A company has a multi-tier web application. The internal service components of the application are deployed on Amazon EC2 instances. The internal services need to securely connect to a third-party Software-as-a-Service (SaaS) API hosted on AWS. The company must ensure minimal public internet exposure. What solution meets these requirements?

Options:

A. Implement an AWS Site-to-Site VPN connection to establish secure connectivity to the third-party SaaS provider.

B. Use AWS Transit Gateway to manage and route communication between the application’s VPC and the third-party SaaS provider.

C. Use AWS PrivateLink to allow only outbound traffic from the VPC while blocking inbound connections from the SaaS provider.

D. Use AWS PrivateLink to create a private connection between the application’s VPC and the third-party SaaS provider.

Question 103 (Single Choice)

Q10

A company uses Amazon DynamoDB to store customer order data. The DynamoDB table supports a customer-facing website that displays the latest activity on customer orders. The company has configured the table with provisioned write and read throughput. The company wants to aggregate customer sales data daily for performance metrics without impacting the provisioned throughput. What solution meets these requirements?

Options:

A. Use Amazon Athena with the DynamoDB connector to run SQL queries to calculate performance metrics on a recurring schedule.

B. Use AWS Glue with the DynamoDB export connector to calculate performance metrics on a recurring schedule.

C. Use the Amazon Redshift COPY command to calculate performance metrics on a recurring schedule.

D. Use an Amazon EMR job with an Apache Hive external table to calculate performance metrics on a recurring schedule.

Question 104 (Single Choice)

Q11

A company recently performed a lift-and-shift migration of its on-premises Oracle database workload to Amazon EC2. The database runs on a storage-optimized Linux EC2 instance with 64,000 IOPS provisioned IOPS SSD (io1) EBS volumes. After the migration, the database storage performance is lower than the on-premises performance. What solution can improve storage performance?

Options:

A. Add more provisioned IOPS SSD (io1) EBS volumes and stripe them using Logical Volume Manager (LVM).

B. Increase the provisioned IOPS for the existing SSD (io1) EBS volumes beyond 64,000 IOPS.

C. Increase the size of the existing SSD (io1) EBS volumes to more than 2 TB.

D. Change the EC2 instance to another storage-optimized instance type without modifying the EBS volumes.

Question 105 (Single Choice)

Q12

A company has built a multi-tier application for its e-commerce website. The website uses application servers in a public subnet behind a load balancer. Web servers in the public subnet host the application, and a MySQL cluster hosted on Amazon EC2 instances resides in a private subnet. The MySQL database needs to retrieve product catalog and pricing information from a third-party provider hosted on the internet. The solutions architect must design a strategy to maximize security without increasing operational overhead. What should the architect do to meet these requirements?

Options:

A. Deploy a NAT instance in the VPC. Route all internet-bound traffic through the NAT instance.

B. Deploy a NAT gateway in the public subnet. Modify the private subnet's route table to route internet-bound traffic to the NAT gateway.

C. Attach an internet gateway to the VPC and modify the private subnet's route table to route internet-bound traffic to the internet gateway.

D. Attach a virtual private gateway to the VPC and modify the private subnet's route table to route internet-bound traffic to the virtual private gateway.

Question 106 (Single Choice)

Q13

A company is migrating its monolithic web application hosted on Amazon EC2 to a serverless microservices architecture. The company wants to use AWS services that support event-driven and loosely coupled architectures. The company also wants to use a publish/subscribe (pub/sub) model. What is the most cost-effective solution that meets these requirements?

Options:

A. Configure an Amazon API Gateway REST API to invoke AWS Lambda functions. Use the Lambda functions to publish events to an Amazon SQS queue. Configure one or more subscribers to read events from the SQS queue.

B. Configure an Amazon API Gateway REST API to invoke AWS Lambda functions. Use the Lambda functions to publish events to an Amazon SNS topic. Configure one or more subscribers to receive events from the SNS topic.

C. Configure an Amazon API Gateway WebSocket API to write data to an Amazon Kinesis data stream using enhanced fan-out. Configure one or more subscribers to receive events from the data stream.

D. Configure an Amazon API Gateway HTTP API to invoke AWS Lambda functions. Use the Lambda functions to publish events to an Amazon SNS topic. Configure one or more subscribers to receive events from the topic.

Question 107 (Single Choice)

Q14

A company needs to retain its AWS CloudTrail logs for 3 years. The company performs CloudTrail across a group of AWS accounts using AWS Organizations and stores the logs in a target S3 bucket with versioning enabled. The S3 bucket has a lifecycle policy to delete current objects after 3 years. After the 4th year, S3 bucket metrics indicate a growing number of objects, although the number of new CloudTrail logs remains consistent. What is the most cost-effective way to delete objects older than 3 years?

Options:

A. Configure centralized CloudTrail logging in AWS Organizations so that objects expire after 3 years.

B. Update the S3 lifecycle policy to delete both previous and current object versions.

C. Create an AWS Lambda function to enumerate and delete objects older than 3 years in Amazon S3.

D. Configure the parent account to take ownership of all objects delivered to the S3 bucket.

Question 108 (Single Choice)

Q15

A company hosts a video streaming web application in a VPC. The company uses a Network Load Balancer (NLB) to handle TCP traffic for real-time data processing. There have been unauthorized attempts to access the application. The company wants to improve the application’s security with minimal architecture changes to prevent unauthorized access. What solution will meet these requirements?

Options:

A. Implement a set of AWS WAF rules directly on the NLB to filter unauthorized traffic.

B. Recreate the NLB using security groups that allow access only from trusted IP addresses.

C. Deploy a second NLB in parallel with the existing one and configure it with a strict IP address allow list.

D. Use AWS Shield Advanced to provide enhanced DDoS protection to prevent unauthorized access attempts.

Question 109 (Single Choice)

Q16

A company is using AWS DataSync to migrate millions of files from on-premises systems to AWS. The average file size is 10 KB. The company wants to use Amazon S3 for file storage. During the first year after migration, files will be accessed once or twice and must be immediately available. After one year, files must be archived for at least seven years. What solution is the most cost-effective to meet these requirements?

Options:

A. Use an archiving tool to group files into large objects. Use DataSync to migrate the objects. Store the objects in S3 Glacier Instant Retrieval for the first year. Use a lifecycle configuration to transition the files to S3 Glacier Deep Archive after one year, with a retention period of seven years.

B. Use an archiving tool to group files into large objects. Use DataSync to copy the objects to S3 Standard-IA. Use a lifecycle configuration to transition the files to S3 Glacier Instant Retrieval after one year, with a retention period of seven years.

C. Configure the target storage class as S3 Glacier Instant Retrieval. Use a lifecycle policy to transition the files to S3 Glacier Flexible Retrieval after one year, with a retention period of seven years.

D. Configure the DataSync task to transfer files to S3 Standard-IA. Use a lifecycle configuration to transition the files to S3 Glacier Deep Archive after one year, with a retention period of seven years.

Question 110 (Single Choice)

Q17

A company is migrating its on-premises Oracle database to Amazon RDS for Oracle. The company needs to retain data for 90 days to meet regulatory requirements. The company must also be able to recover data to a specific point in time, up to 14 days. What solution will meet these requirements with minimal operational overhead?

Options:

A. Create Amazon RDS automated backups with a retention period of 90 days.

B. Create daily manual snapshots of Amazon RDS. Delete snapshots older than 90 days.

C. Use Oracle's Amazon Aurora Clone feature to perform point-in-time recovery and delete clones older than 90 days.

D. Use AWS Backup for Amazon RDS to create a backup plan with a retention period of 90 days.

Question 111 (Single Choice)

Q18

A company is using Amazon EC2 instances to run its applications. The company wants to ensure quick service recovery in the event of a failure. What solution meets this requirement?

Options:

A. Place all EC2 instances in an Auto Scaling group.

B. Place all EC2 instances in the same AWS Region.

C. Place all EC2 instances in the same Availability Zone.

D. Place all EC2 instances in private subnets across multiple Availability Zones.

Question 112 (Single Choice)

Q19

A company stores user data on AWS. The data experiences peak usage during working hours and has varying access patterns. Some data remains unused for months at a time. The solutions architect must choose a cost-effective solution that maintains high availability while ensuring maximum durability. What storage solution meets these requirements?

Options:

A. Amazon S3 Standard

B. Amazon S3 Intelligent-Tiering

C. Amazon S3 Glacier Deep Archive

D. Amazon S3 One Zone-IA

Question 113 (Single Choice)

Q20

A company wants to replicate existing and ongoing data changes from an on-premises Oracle database to Amazon RDS for Oracle. The amount of data to replicate varies daily. The company wants to use AWS Database Migration Service (AWS DMS) for replication. The solution must allocate only the necessary capacity for the replication instance. What solution meets these requirements?

Options:

A. Configure the AWS DMS replication instance with Multi-AZ deployment across multiple Availability Zones.

B. Create AWS DMS Serverless replication tasks to analyze and replicate data with the required capacity.

C. Use Amazon EC2 Auto Scaling to scale the size of the AWS DMS replication instance up or down based on the amount of data to replicate.

D. Configure AWS DMS replication capacity using Amazon ECS with the AWS Fargate launch type to analyze and replicate data with the required capacity.

Question 114 (Single Choice)

Q21

A company has GPS trackers recording the migration patterns of thousands of turtles. Each tracker checks every five minutes to see if the turtle has moved more than 100 yards (91.4 meters). If a turtle moves, its tracker sends new coordinates to a web application running on three Amazon EC2 instances in multiple Availability Zones within one AWS Region. Recently, the web application became overwhelmed and lost data while processing an unexpected number of tracker updates. The solutions architect must prevent this from happening again and provide a solution with minimal operational overhead. What should the architect do to meet these requirements?

Options:

A. Create an Amazon S3 bucket to store the data. Configure the application to scan the bucket for new data to process.

B. Create an Amazon API Gateway endpoint to handle incoming coordinates. Use AWS Lambda functions to process each item concurrently.

C. Create an Amazon Simple Queue Service (Amazon SQS) queue to store incoming data. Configure the application to poll the queue for new messages to process.

D. Create an Amazon DynamoDB table to store incoming coordinates. Configure the application to query the table for new data to process. Use TTL to delete processed data.

Question 115 (Single Choice)

Q22

A company plans to migrate a legacy application to AWS. The application currently uses NFS to communicate with an on-premises storage solution to store application data. The application cannot be modified to use any protocol other than NFS. What storage solution should the solutions architect recommend?

Options:

A. AWS DataSync

B. Amazon Elastic Block Store (Amazon EBS)

C. Amazon Elastic File System (Amazon EFS)

D. Amazon FSx for Lustre

Question 116 (Single Choice)

Q23

A company hosts its core network services, including directory services and DNS, in its on-premises data center. The data center is connected to the AWS Cloud using AWS Direct Connect (DX). The company plans to use additional AWS accounts, which will need consistent, cost-effective, and fast access to these network services. What should the solutions architect implement to meet these requirements with minimal operational overhead?

Options:

A. Create a DX connection in each new account. Route network traffic to the on-premises servers.

B. Configure VPC endpoints in the DX VPC for all required services. Route network traffic to the on-premises servers.

C. Create VPN connections between each new account and the DX VPC. Route network traffic to the on-premises servers.

D. Configure AWS Transit Gateway between the accounts and the DX VPC. Assign DX to the transit gateway and route network traffic to the on-premises servers.

Question 117 (Single Choice)

Q24

A company’s software development team needs an Amazon RDS Multi-AZ cluster. The RDS cluster will serve as the backend for a desktop client deployed on-premises. The desktop client needs direct connectivity to the RDS cluster. The company must allow the development team to connect to the cluster from their office securely. What solution provides the required connectivity most securely?

Options:

A. Create a VPC with two public subnets. Create the RDS cluster in the public subnets. Use AWS Site-to-Site VPN with the office's customer gateway.

B. Create a VPC with two private subnets. Create the RDS cluster in the private subnets. Use AWS Site-to-Site VPN with the office's customer gateway.

C. Create a VPC with two private subnets. Create the RDS cluster in the private subnets. Use RDS security groups to allow the office's IP range to access the cluster.

D. Create a VPC with two public subnets. Create the RDS cluster in the public subnets. Create a cluster user for each developer. Use RDS security groups to allow access to the cluster.

Question 118 (Multiple Choice)

Q25

A company is designing an architecture for a new mobile application using the AWS Cloud. The company uses AWS Organizations with organizational units (OUs) to manage its accounts. The company wants to tag Amazon EC2 instances with sensitive and non-sensitive values to indicate data sensitivity. IAM identities must not be able to delete the tags or create instances without tags. What combination of steps will meet these requirements? (Choose two.)

Options:

A. Create a new tag policy in the organization that specifies the data sensitivity tag key and required values. Enforce the tagging of EC2 instances. Attach the tag policy to the appropriate OU.

B. Create a new service control policy (SCP) in the organization that specifies the data sensitivity tag key and required tag values. Enforce the tagging of EC2 instances. Attach the SCP to the appropriate OU.

C. Create a tag policy to deny instance creation without a specified tag key. Create another tag policy to prevent identities from deleting tags. Attach the tag policies to the appropriate OU.

D. Create an SCP that denies instance creation without a specified tag key. Create another SCP that prevents identities from deleting tags. Attach the SCPs to the appropriate OU.

E. Create AWS Config rules to check EC2 instances for data sensitivity tags with specified values. Configure an AWS Lambda function to delete resources that are non-compliant.

Question 119 (Single Choice)

Q26

A streaming company is rebuilding its infrastructure to meet increasing demand as users consume video content daily. The company needs to process terabytes of video to blur certain content in the videos. Video processing might take 20 minutes. The company requires a scalable and cost-effective solution. What solution meets these requirements?

Options:

A. Use AWS Lambda functions to process videos. Store video metadata in Amazon DynamoDB. Store video content in Amazon S3 Intelligent-Tiering.

B. Use Amazon Elastic Container Service (Amazon ECS) with AWS Fargate to implement microservices for video processing. Store video metadata in Amazon Aurora. Store video content in Amazon S3 Intelligent-Tiering.

C. Use Amazon EC2 instances in an Auto Scaling group behind an Application Load Balancer (ALB) to process videos. Store video content in Amazon S3 Standard. Use Amazon SQS for queuing and decoupling tasks.

D. Deploy a containerized video processing application on Amazon Elastic Kubernetes Service (Amazon EKS) on Amazon EC2. Store video metadata in Amazon RDS in a single Availability Zone. Store video content in Amazon S3 Glacier Deep Archive.

Question 120 (Single Choice)

Q27

A company runs Node.js functions on servers in its on-premises data center. The data center stores data in a PostgreSQL database, with credentials stored as connection strings in environment variables on the servers. The company wants to migrate its application to AWS and replace the Node.js application servers with AWS Lambda. The company also wants to migrate to Amazon RDS for PostgreSQL and ensure that database credentials are securely managed. What solution will meet these requirements with minimal operational overhead?

Options:

A. Store the database credentials as parameters in AWS Systems Manager Parameter Store, with automatic rotation every 30 days. Update the Lambda function to retrieve credentials from the parameters.

B. Store the database credentials as secrets in AWS Secrets Manager. Configure Secrets Manager to automatically rotate credentials every 30 days. Update the Lambda function to retrieve credentials from Secrets Manager.

C. Store the database credentials as encrypted Lambda environment variables. Write a custom Lambda function to rotate credentials and schedule it to run every 30 days.

D. Store the database credentials as keys in AWS Key Management Service (AWS KMS). Enable automatic key rotation. Update the Lambda function to retrieve credentials from KMS keys.

Question 121 (Single Choice)

Q28

A company is developing an application on the AWS Cloud. The application's HTTP API, hosted in Amazon API Gateway, includes key-value information. This key-value information must be accessible only from a limited set of trusted IP addresses belonging to the company's internal network. What solution will meet these requirements?

Options:

A. Set up API Gateway private integration to restrict access to a predefined set of IP addresses.

B. Create a resource policy for the API to deny access to any IP address not explicitly allowed.

C. Deploy the API in a private subnet. Create network ACL rules to allow traffic only from specific IP addresses.

D. Modify the security group attached to API Gateway to allow inbound traffic only from trusted IP addresses.

Question 122 (Single Choice)

Q29

A company is deploying a new application on AWS. The application will run on multiple Amazon EC2 instances across multiple Availability Zones in multiple AWS Regions. The application will be accessed over the internet by users worldwide. The company wants to ensure that each user accessing the application is directed to the EC2 instance closest to their location. What solution meets these requirements?

Options:

A. Use Amazon Route 53 Geolocation routing. Use an internet-facing Application Load Balancer to distribute traffic within the same Region’s Availability Zones.

B. Use Amazon Route 53 Geoproximity routing. Use an internet-facing Network Load Balancer to distribute traffic within the same Region’s Availability Zones.

C. Use Amazon Route 53 Multivalue Answer routing. Use an internet-facing Application Load Balancer to distribute traffic within the same Region’s Availability Zones.

D. Use Amazon Route 53 Weighted routing. Use an internet-facing Network Load Balancer to distribute traffic within the same Region’s Availability Zones.

Question 123 (Single Choice)

Q30

A company needs to provide global distributed development teams with secure access to the company's AWS resources in compliance with security policies. The company currently uses an on-premises Active Directory for internal authentication and AWS Organizations to manage multiple AWS accounts for multiple projects. The company needs a solution that integrates with the existing infrastructure to provide centralized identity management and access control. What solution will meet these requirements with minimal operational overhead?

Options:

A. Set up AWS Directory Service to create an AWS-managed Microsoft Active Directory on AWS. Establish a trust relationship with the on-premises Active Directory. Use IAM roles assigned to Active Directory groups to access AWS resources in the company's accounts.

B. Create an IAM user for each developer. Manually manage each IAM user's permissions based on their involvement in each project. Enforce multi-factor authentication (MFA) for an additional security layer.

C. Use AD Connector in AWS Directory Service to connect to the on-premises Active Directory. Integrate the AD Connector with AWS IAM Identity Center. Configure permissions for each AD group to access specific AWS accounts and resources.

D. Use Amazon Cognito to deploy a federated identity solution. Integrate the federated identity solution with the on-premises Active Directory. Use Amazon Cognito to provide developers with access tokens to AWS accounts and resources.

Question 124 (Single Choice)

Q31

A solutions architect is designing a storage architecture for a new web application to store and view engineering drawings. All application components will be deployed on AWS infrastructure. The design must support caching to minimize user wait time when loading engineering drawings. The application must support storing petabytes of data. What combination of storage and caching solutions should the architect use?

Options:

A. Amazon S3 with Amazon CloudFront

B. Amazon S3 Glacier with Amazon ElastiCache

C. Amazon Elastic Block Store (Amazon EBS) volumes with Amazon CloudFront

D. AWS Storage Gateway with Amazon ElastiCache

Question 125 (Single Choice)

Q32

A company has a multi-tier web application. The application’s internal service components are deployed on Amazon EC2 instances. The internal services need secure private connectivity to a third-party Software-as-a-Service (SaaS) API hosted on AWS. The company must minimize public internet exposure. What solution meets these requirements?

Options:

A. Implement AWS Site-to-Site VPN to establish secure connectivity with the third-party SaaS provider.

B. Deploy AWS Transit Gateway to manage and route traffic between the application’s VPC and the third-party SaaS provider.

C. Use AWS PrivateLink to allow only outbound traffic from the VPC and prevent inbound connections from the third-party SaaS provider.

D. Use AWS PrivateLink to create a private connection between the application’s VPC and the third-party SaaS provider.

Question 126 (Single Choice)

Q33

A financial services company plans to launch a new application on AWS to process sensitive financial transactions. The company will deploy the application on Amazon EC2 instances and use Amazon RDS for MySQL as the database. The company's security policy requires encryption of data at rest and in transit. What solution will meet these requirements with minimal operational overhead?

Options:

A. Use AWS KMS-managed keys to configure encryption at rest for Amazon RDS for MySQL. Use AWS Certificate Manager (ACM) SSL/TLS certificates to configure encryption in transit.

B. Use AWS KMS-managed keys to configure encryption at rest for Amazon RDS for MySQL. Configure IPsec tunnels for encryption in transit.

C. Implement third-party application-level data encryption before storing data in Amazon RDS for MySQL. Use AWS Certificate Manager (ACM) SSL/TLS certificates for encryption in transit.

D. Use AWS KMS-managed keys to configure encryption at rest for Amazon RDS for MySQL. Configure a VPN connection to enable private connectivity for encryption in transit.

Question 127 (Single Choice)

Q34

A company tracks customer satisfaction through surveys on its website. These surveys sometimes reach thousands of customers per hour. Survey results are currently sent via email to the company for manual review and sentiment analysis. The company wants to automate the survey process and must store the results for the past 12 months. What solution will meet these requirements most scalably?

Options:

A. Send survey result data to an Amazon API Gateway endpoint connected to an Amazon Simple Queue Service (Amazon SQS) queue. Create an AWS Lambda function to poll the SQS queue, call Amazon Comprehend for sentiment analysis, and store results in an Amazon DynamoDB table with a TTL of 365 days.

B. Send survey result data to an API running on Amazon EC2 instances. Configure the API to store survey results as new records in an Amazon DynamoDB table, call Amazon Comprehend for sentiment analysis, and save results in a second DynamoDB table with a TTL of 365 days.

C. Write survey result data to an Amazon S3 bucket. Use S3 event notifications to invoke an AWS Lambda function to read the data and call Amazon Rekognition for sentiment analysis. Store the sentiment analysis results in a second S3 bucket. Use S3 lifecycle policies to expire objects after 365 days.

D. Send survey result data to an Amazon API Gateway endpoint connected to an Amazon SQS queue. Configure the SQS queue to invoke an AWS Lambda function to call Amazon Lex for sentiment analysis and store results in an Amazon DynamoDB table with a TTL of 365 days.

Question 128 (Single Choice)

Q35

A company runs database workloads on AWS to support its customer portal backend. The company uses an Amazon RDS for PostgreSQL Multi-AZ database cluster and needs to implement a 30-day backup retention policy. The company currently uses both automated RDS backups and manual RDS backups and wants to retain both types of backups for less than 30 days. What is the most cost-effective solution to meet these requirements?

Options:

A. Configure the RDS backup retention policy to 30 days for automated backups using AWS Backup. Manually delete manual backups older than 30 days.

B. Disable RDS automated backups. Delete automated and manual backups older than 30 days. Configure the RDS backup retention policy to 30 days for automated backups.

C. Configure the RDS backup retention policy to 30 days for automated backups. Manually delete manual backups older than 30 days.

D. Disable RDS automated backups. Use AWS CloudFormation to automate the deletion of automated and manual backups older than 30 days. Configure the RDS backup retention policy to 30 days for automated backups.

Question 129 (Single Choice)

Q36

A company currently stores 5 TB of data on an on-premises block storage system. The current solution has limited space for additional data. Applications running on-premises must be able to retrieve frequently accessed data with low latency. The company needs a cloud-based storage solution. What solution will meet these requirements with the MOST operational efficiency?

Options:

A. Use Amazon S3 File Gateway. Integrate S3 File Gateway with on-premises applications to store and retrieve files using the SMB file system.

B. Use AWS Storage Gateway Volume Gateway with cached volumes as an iSCSI target.

C. Use AWS Storage Gateway Volume Gateway with stored volumes as an iSCSI target.

D. Use AWS Storage Gateway Tape Gateway. Integrate Tape Gateway with on-premises applications to store virtual tapes in Amazon S3.

Question 130 (Single Choice)

Q37

A company’s image hosting website allows users worldwide to upload, view, and download images from their mobile devices. The website hosts static content in an Amazon S3 bucket. As the website has grown in popularity, performance has declined. Users report delays when uploading and downloading images. The company must improve the website’s performance with minimal implementation effort. What solution meets these requirements?

Options:

A. Configure an Amazon CloudFront distribution for the S3 bucket to improve download performance. Enable S3 Transfer Acceleration to improve upload performance.

B. Provision appropriately sized Amazon EC2 instances in multiple AWS Regions. Migrate the application to the EC2 instances. Use an Application Load Balancer to distribute website traffic across the EC2 instances. Configure AWS Global Accelerator to meet global demand with low latency.

C. Configure an Amazon CloudFront distribution with the S3 bucket as the origin to improve download performance. Configure the application to use CloudFront for uploads to improve upload performance. Create S3 buckets in multiple AWS Regions and configure replication rules to copy user data across buckets based on user location. Redirect downloads to the S3 bucket closest to each user’s location.

D. Configure AWS Global Accelerator for the S3 bucket to improve network performance. Create an endpoint for the application to use Global Accelerator instead of the S3 bucket.

Question 131 (Single Choice)

Q38

An online gaming company is transitioning its user data storage to Amazon DynamoDB to support its growing user base. The current architecture includes DynamoDB tables containing user profiles, achievements, and in-game transactions. The company needs to design a robust, highly available, and resilient DynamoDB architecture to provide a seamless gaming experience for users. What solution is the most cost-effective to meet these requirements?

Options:

A. Create DynamoDB tables in a single AWS Region. Use On-Demand capacity mode. Use Global Tables to replicate data across multiple Regions.

B. Use DynamoDB Accelerator (DAX) to cache frequently accessed data. Deploy tables in a single AWS Region and enable auto-scaling. Manually configure cross-Region replication to other Regions.

C. Create DynamoDB tables in multiple AWS Regions. Use On-Demand capacity mode. Perform cross-Region replication using DynamoDB tables.

D. Use DynamoDB Global Tables for automatic multi-Region replication. Deploy tables across multiple AWS Regions. Use Provisioned capacity mode and enable auto-scaling.

Question 132 (Single Choice)

Q39

A company is migrating its application from an on-premises location to Amazon Elastic Kubernetes Service (Amazon EKS). The company must use custom subnets for Pods within its VPC to meet compliance requirements. It also needs to ensure that Pods can securely communicate within the VPC. What solution meets these requirements?

Options:

A. Configure AWS Transit Gateway to directly manage custom subnet configurations for Pods in Amazon EKS.

B. Create an AWS Direct Connect connection from the company’s on-premises IP address range to EKS Pods.

C. Use the Amazon VPC CNI plugin for Kubernetes to allocate custom subnets in the VPC for Pods.

D. Implement a Kubernetes network policy with Pod anti-affinity rules. Restrict Pod placement to specific nodes within custom subnets.

Question 133 (Single Choice)

Q106

A company runs a customer-facing web application on containers. The workload uses Amazon Elastic Container Service (Amazon ECS) on AWS Fargate. The web application is resource-intensive and needs to serve customers 24/7. The company expects brief periods of high traffic. The workload must be highly available. What solution is the most cost-effective to meet these requirements?

Options:

A. Configure ECS capacity providers with Fargate. Use a third-party tool for load testing. Adjust the size of Fargate tasks appropriately in Amazon CloudWatch.

B. Configure ECS capacity providers with Fargate for steady-state workloads and Fargate Spot for burst traffic.

C. Configure ECS capacity providers with Fargate Spot for steady-state workloads and Fargate for burst traffic.

D. Configure ECS capacity providers with Fargate. Use AWS Compute Optimizer to size Fargate tasks appropriately.

Question 134 (Single Choice)

Q104

A company manages a data lake in an Amazon S3 bucket. Several applications access the bucket. The S3 bucket contains unique prefixes for each application. The company wants to restrict each application to its specific prefix and enforce fine-grained access control over objects under each prefix. What solution meets these requirements with minimal operational overhead?

Options:

A. Create dedicated S3 access points with access point policies for each application.

B. Create an S3 Batch Operations job to set ACL permissions on each object in the S3 bucket.

C. Copy the objects in the S3 bucket to a new S3 bucket for each application. Create replication rules by prefix.

D. Copy the objects in the S3 bucket to a new S3 bucket for each application. Create dedicated S3 access points for each application.

Question 135 (Single Choice)

Q103

A company wants to migrate its application to AWS. The company wants to improve the current availability of the application and use AWS WAF in the architecture. What solution meets these requirements?

Options:

A. Create an Auto Scaling group with multiple Amazon EC2 instances. Host the application across two Availability Zones. Configure an Application Load Balancer (ALB) and set the Auto Scaling group as the target. Attach WAF to the ALB.

B. Create a cluster placement group with multiple Amazon EC2 instances hosting the application. Configure an Application Load Balancer (ALB) and set the EC2 instances as targets. Attach WAF to the placement group.

C. Create two Amazon EC2 instances hosting the application across two Availability Zones. Configure the EC2 instances as targets for an Application Load Balancer (ALB). Attach WAF to the ALB.

D. Create an Auto Scaling group with multiple Amazon EC2 instances. Host the application across two Availability Zones. Configure an Application Load Balancer (ALB) and set the Auto Scaling group as the target. Attach WAF to the Auto Scaling group.

Question 136 (Multiple Choice)

Q1037

A company wants to use Amazon Elastic Container Service (Amazon ECS) to run its on-premises applications in a hybrid environment. The applications currently run on on-premises containers. The company needs a single container solution that can scale across on-premises, hybrid, or cloud environments. The company must run new application containers in the AWS Cloud and must use a load balancer for HTTP traffic. What combination of actions will meet these requirements? (Choose two.)

Options:

A. Set up an ECS cluster with the AWS Fargate launch type for cloud application containers. Use Amazon ECS Anywhere external launch type for on-premises application containers.

B. Set up an Application Load Balancer for the ECS services running in the cloud.

C. Set up a Network Load Balancer for the ECS services running in the cloud.

D. Set up an ECS cluster with the AWS Fargate launch type for both cloud and on-premises application containers.

E. Set up an ECS cluster with the Amazon EC2 launch type for cloud application containers. Use Amazon ECS Anywhere with the AWS Fargate launch type for on-premises application containers.

Question 137 (Single Choice)

Q1036

A company is migrating five on-premises applications to the AWS Cloud into a VPC. Each application is currently deployed in isolated virtual networks on-premises and must be deployed similarly in AWS. The applications need access to a shared services VPC. All applications must be able to communicate with each other. If the migration is successful, the company plans to repeat the process for more than 100 applications. What solution meets these requirements with the least management overhead?

Options:

A. Deploy software VPN tunnels between the application VPCs and the shared services VPC. Add routes in the shared services VPC to the subnets in the application VPCs.

B. Deploy VPC peering between the application VPCs and the shared services VPC. Add routes in the shared services VPC to the subnets in the application VPCs via the peering connections.

C. Deploy AWS Direct Connect connections between the application VPCs and the shared services VPC. Add routes to the subnets in the shared services VPC and application VPCs.

D. Deploy a Transit Gateway associated with the application VPCs and the shared services VPC. Add routes to the subnets in the shared services VPC via the Transit Gateway.

Question 138 (Single Choice)

Q1035

A company runs workloads on the AWS Cloud. The company wants to centralize the collection of security data to evaluate company-wide security posture and improve workload protection. What solution meets these requirements with minimal development effort?

Options:

A. Configure a data lake in AWS Lake Formation. Use AWS Glue crawlers to ingest security data into the data lake.

B. Configure an AWS Lambda function to collect security data in .csv format. Upload the data to an Amazon S3 bucket.

C. Configure a data lake in Amazon Security Lake to collect security data. Upload the data to an Amazon S3 bucket.

D. Configure an AWS Database Migration Service (AWS DMS) replication instance to load security data into an Amazon RDS cluster.

Question 139 (Single Choice)

Q1034

A company performs critical data analysis jobs on the first working day of the week. The job requires at least one hour to complete and must not tolerate interruptions. The company needs a solution to run the job on AWS. What solution meets these requirements?

Options:

A. Create a container for the job. Use Amazon EventBridge Scheduler to schedule the job to run as an AWS Fargate task on an Amazon Elastic Container Service (Amazon ECS) cluster.

B. Configure the job to run in an AWS Lambda function. Create a schedule rule in Amazon EventBridge to invoke the Lambda function.

C. Configure an Auto Scaling group of Amazon EC2 Spot Instances running Amazon Linux. Use crontab entries to run the job on the instances.

D. Configure an AWS DataSync task to run the job. Use a cron expression to schedule the task.

Question 140 (Single Choice)

Q1033

A company is designing the disaster recovery (DR) strategy for its production application. The application is supported by an Amazon Aurora MySQL database cluster in the us-east-1 Region. The company has selected us-west-1 as its DR Region. The company's recovery point objective (RPO) is 5 minutes, and its recovery time objective (RTO) is 20 minutes. The company wants to minimize configuration changes. What solution meets these requirements with the MOST operational efficiency?

Options:

A. Create an Aurora read replica in us-west-1 sized similarly to the writer instance of the production Aurora MySQL cluster.

B. Convert the Aurora cluster to an Aurora Global Database. Configure managed failover.

C. Create a new Aurora cluster in us-west-1 with cross-Region replication enabled.

D. Create a new Aurora cluster in us-west-1. Use AWS Database Migration Service (AWS DMS) to synchronize the two clusters.

Question 141 (Single Choice)

Q1029

A company is migrating its data center from an on-premises location to AWS. The company has several legacy applications hosted on individual virtual servers, and no changes can be made to the application design. Each virtual server currently runs as its own EC2 instance. The solutions architect needs to ensure that the applications are reliable and fault-tolerant after the migration to AWS. These applications will run on Amazon EC2 instances. What solution meets these requirements?

Options:

A. Create an Auto Scaling group with a minimum and maximum size of 1. Create an Amazon Machine Image (AMI) for each application instance. Use the AMI to launch EC2 instances in the Auto Scaling group. Configure an Application Load Balancer (ALB) in front of the Auto Scaling group.

B. Use AWS Backup to create hourly backups of the EC2 instances hosting each application. Store the backups in Amazon S3 in a separate Availability Zone. Configure a disaster recovery process to restore EC2 instances from the latest backup for each application.

C. Create an Amazon Machine Image (AMI) for each application instance. Launch two new EC2 instances from the AMI and place them in separate Availability Zones. Configure a Network Load Balancer to target these EC2 instances.

D. Use AWS Migration Hub to re-architect each application into separate components and migrate the applications from EC2 instances to AWS Fargate on Amazon ECS using a containerized approach.

Question 142 (Single Choice)

Q1025

An e-commerce company wants to collect user clickstream data from its website for real-time analysis. The website has varying traffic patterns throughout the day. The company needs a scalable solution to handle different levels of traffic. What solution meets these requirements?

Options:

A. Use a data stream in Amazon Kinesis Data Streams with On-Demand mode to capture clickstream data. Use AWS Lambda to process the data in real time.

B. Use Amazon Kinesis Data Firehose to capture clickstream data. Use AWS Glue to process the data in real time.

C. Use Amazon Kinesis Video Streams to capture clickstream data. Use AWS Glue to process the data in real time.

D. Use Amazon Managed Service for Apache Flink to capture clickstream data. Use AWS Lambda to process the data in real time.

Question 143 (Multiple Choice)

Q1024

A company plans to re-host its application to Amazon EC2 instances with attached Amazon Elastic Block Store (Amazon EBS) volumes. The solutions architect must design a solution to ensure all newly created EBS volumes are encrypted by default. The solution must also prevent the creation of unencrypted EBS volumes. What combination of actions meets these requirements?

Options:

A. Configure the EC2 account attribute to always encrypt new EBS volumes.

B. Use AWS Config to configure the Encrypted Volume indicator and apply the default AWS Key Management Service (AWS KMS) key.

C. Configure AWS Systems Manager to create encrypted copies of EBS volumes. Reconfigure EC2 instances to use encrypted volumes.

D. Create a customer-managed key in AWS Key Management Service (AWS KMS). Configure AWS Migration Hub to use the key when migrating workloads.

Question 144 (Multiple Choice)

Q1023

A company uses Microsoft SQL Server databases. The company's applications are connected to these databases. The company wants to migrate to Amazon Aurora PostgreSQL with minimal changes to the application code. What combination of steps meets these requirements?

Options:

A. Use AWS Schema Conversion Tool (AWS SCT) to rewrite SQL queries in the application.

B. Enable Babelfish for Aurora PostgreSQL to run the application's SQL queries.

C. Use AWS Schema Conversion Tool (AWS SCT) and AWS Database Migration Service (AWS DMS) to migrate the database schema and data.

D. Use Amazon RDS Proxy to connect the application to Aurora PostgreSQL.

E. Use AWS Database Migration Service (AWS DMS) to rewrite SQL queries in the application.

Question 145 (Multiple Choice)

Q1022

A company has released a new version of its production application. The company uses Amazon EC2, AWS Lambda, AWS Fargate, and Amazon SageMaker for compute workloads. The company wants to cost-optimize its workloads as usage remains steady. The company wants to cover the most services with savings plans using minimal configurations. What combination of savings plans meets these requirements?

Options:

A. Purchase an EC2 Instance Savings Plan for Amazon EC2 and SageMaker.

B. Purchase a Compute Savings Plan for Amazon EC2, Lambda, and SageMaker.

C. Purchase a SageMaker Savings Plan.

D. Purchase a Compute Savings Plan for Lambda, Fargate, and Amazon EC2.

E. Purchase an EC2 Instance Savings Plan for Amazon EC2 and Fargate.

Question 146 (Multiple Choice)

Q1021

A solutions architect is designing a three-tier web application. The architecture consists of an internet-facing Application Load Balancer (ALB) and a web tier hosted on Amazon EC2 instances in private subnets. The application tier runs business logic on EC2 instances in private subnets. The database tier consists of Microsoft SQL Server running on EC2 instances in private subnets. Security is a top priority for the company. What combination of security group configurations meets these requirements?

Options:

A. Configure the security group for the web tier to allow inbound HTTPS traffic from the ALB’s security group.

B. Configure the security group for the web tier to allow outbound HTTPS traffic to 0.0.0.0/0.

C. Configure the security group for the database tier to allow inbound Microsoft SQL Server traffic from the application tier’s security group.

D. Configure the security group for the database tier to allow outbound HTTPS and Microsoft SQL Server traffic to the web tier’s security group.

E. Configure the security group for the application tier to allow inbound HTTPS traffic from the web tier’s security group.

Question 147 (Single Choice)

Q1020

A company has deployed a multi-account strategy using AWS Control Tower. Each developer has their own AWS account. The company wants to implement controls to limit the AWS resource costs incurred by developers. What solution meets these requirements with minimal operational overhead?

Options:

A. Instruct developers to tag all their resources with a CostCenter key and their name as the value. Use an AWS Config managed rule to check for the required tags. Create an AWS Lambda function to terminate resources without tags. Configure AWS Cost Explorer to send daily reports to developers to monitor their spending.

B. Use AWS Budgets to create a budget for each developer account. Set budget alerts for actual and forecasted values to notify developers when they exceed or are predicted to exceed their budget. Use AWS Budgets actions to apply a DenyAll policy to developers' IAM roles to prevent launching additional resources when the budget is exceeded.

C. Use AWS Cost Explorer to monitor and report the costs of each developer account. Configure Cost Explorer to send daily reports to developers to monitor their spending. Use AWS Cost Anomaly Detection to detect and alert for unusual spending.

D. Use AWS Service Catalog to allow developers to launch resources within a limited cost range. Create AWS Lambda functions in each AWS account to stop running resources at the end of each workday and restart them at the beginning of each workday.

Question 148 (Single Choice)

Q1013

A company’s production environment consists of Amazon EC2 On-Demand Instances. These instances run continuously from Monday to Saturday and for only 12 hours on Sundays. Interruptions are not acceptable. The company wants to cost-optimize its production environment. What solution is the most cost-effective?

Options:

A. Purchase Scheduled Reserved Instances for the EC2 instances running only 12 hours on Sundays. Purchase Standard Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

B. Purchase Convertible Reserved Instances for the EC2 instances running only 12 hours on Sundays. Purchase Standard Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

C. Use Spot Instances for the EC2 instances running only 12 hours on Sundays. Purchase Standard Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

D. Use Spot Instances for the EC2 instances running only 12 hours on Sundays. Purchase Convertible Reserved Instances for the EC2 instances running continuously from Monday to Saturday.

Question 149 (Multiple Choice)

Q1006

A company uses AWS Systems Manager to manage and patch Amazon EC2 instances daily. The EC2 instances are in an IP address-type target group behind an Application Load Balancer (ALB). A new security protocol requires the company to remove EC2 instances from service during patching. When the company followed this protocol during a patching window, it received errors. What combination of actions resolves the errors?

Options:

A. Change the target type of the target group from IP address type to instance type.

B. Continue using the existing Systems Manager documents without any changes, as they are optimized for instances in IP address-type target groups behind an ALB.

C. Implement the AWSEC2-PatchLoadBalancerInstance Systems Manager Automation document to manage the patching process.

D. Use Systems Manager Maintenance Windows to automatically remove instances from service for patching.

E. Configure Systems Manager State Manager to remove instances from service and manage the patching schedule. Use ALB health checks to reroute traffic.

Question 150 (Single Choice)

Q1001

A company provides food delivery services. Due to recent growth, its order processing system experiences scaling issues during peak periods. The current architecture includes an Auto Scaling group of Amazon EC2 instances that collect orders. A second Auto Scaling group of EC2 instances processes orders. Order collection occurs quickly, but order fulfillment can take longer. Data must not be lost during scaling events. The solutions architect must ensure both the order collection and fulfillment processes scale adequately during peak traffic periods. What solution meets these requirements?

Options:

A. Monitor the CPUUtilization metric of each instance in both Auto Scaling groups using Amazon CloudWatch. Configure the minimum capacity of each Auto Scaling group to meet peak workload values.

B. Monitor the CPUUtilization metric of each instance in both Auto Scaling groups using Amazon CloudWatch. Configure CloudWatch alarms to invoke an Amazon Simple Notification Service (Amazon SNS) topic to create additional Auto Scaling groups as needed.

C. Use two Amazon Simple Queue Service (Amazon SQS) queues. Use one SQS queue for order collection and another for order fulfillment. Configure EC2 instances to poll their respective queues. Scale Auto Scaling groups based on notifications sent by the queues.

D. Use two Amazon Simple Queue Service (Amazon SQS) queues. Use one SQS queue for order collection and another for order fulfillment. Configure EC2 instances to poll their respective queues. Scale Auto Scaling groups based on the number of messages in each queue.

Question 151 (Single Choice)

Q938

A company runs media storage on multiple Amazon EC2 instances distributed across multiple Availability Zones within a single VPC. The company wants a high-performance solution to share data among all EC2 instances and prefers to keep the data within the VPC. What should the solutions architect recommend?

Options:

A. Create an Amazon S3 bucket and call the service API from the application on each instance.

B. Create an Amazon S3 bucket and configure all instances to access it as a mounted volume.

C. Configure an Amazon Elastic Block Store (Amazon EBS) volume and mount it across all instances.

D. Configure an Amazon Elastic File System (Amazon EFS) file system and mount it across all instances.

Question 152 (Single Choice)

Q709

A company runs an application on AWS that connects to an Amazon RDS database. The application scales during weekends and peak times of the year. The company wants to scale the database more efficiently for the application with minimal operational overhead. What solution meets these requirements?

Options:

A. Use Amazon DynamoDB with a connection pool configured for the database. Update the application to use the DynamoDB endpoint.

B. Use Amazon RDS Proxy with a connection pool configured for the database. Update the application to use the RDS Proxy endpoint.

C. Use a custom proxy running on Amazon EC2 as a mediator for the database. Update the application to use the custom proxy endpoint.

D. Use an AWS Lambda function to provide a connection pool configured for the database. Update the application to use the Lambda function.