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# AMAZON SOA-C03

## AWS CERTIFIED SYSOPS ADMINISTRATOR - ASSOCIATE

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QUESTION: 1

A company uses AWS CloudFormation templates to deploy cloud infrastructure. An analysis of all the company's templates shows that the company has declared the same components in multiple templates. A SysOps administrator needs to create dedicated templates that have their own parameters and conditions for these common components.

Which solution will meet this requirement?

- A. Develop a CloudFormation change set.
- B. Develop CloudFormation macros.
- C. Develop CloudFormation nested stacks.
- D. Develop CloudFormation stack sets.

QUESTION: 2

An errant process is known to use an entire processor and run at 100%. A SysOps administrator wants to automate restarting an Amazon EC2 instance when the problem occurs for more than 2 minutes.

How can this be accomplished?

- A. Create an Amazon CloudWatch alarm for the EC2 instance with basic monitoring. Add an action to restart the instance.
- B. Create an Amazon CloudWatch alarm for the EC2 instance with detailed monitoring. Add an action to restart the instance.
- C. Create an AWS Lambda function to restart the EC2 instance, invoked on a scheduled basis every 2 minutes.
- D. Create an AWS Lambda function to restart the EC2 instance, invoked by EC2 health checks.

QUESTION: 3

A SysOps administrator has an AWS CloudFormation template that is used to deploy an encrypted Amazon Machine Image (AMI). The CloudFormation template will be used in a second account, so the SysOps administrator copies the encrypted AMI to the second account. When launching the new CloudFormation stack in the second account, it fails.

Which action should the SysOps administrator take to correct the issue?

- A. Change the AMI permissions to mark the AMI as public.
- B. Deregister the AMI in the source account.
- C. Re-encrypt the destination AMI with an AWS Key Management Service (AWS KMS) key from the destination account.

D. Update the CloudFormation template with the ID of the AMI in the destination account.

QUESTION: 4

A SysOps administrator has created an AWS Service Catalog portfolio and has shared the portfolio with a second AWS account in the company. The second account is controlled by a different administrator.

Which action will the administrator of the second account be able to perform?

- A. Add a product from the imported portfolio to a local portfolio.
- B. Add new products to the imported portfolio.
- C. Change the launch role for the products contained in the imported portfolio.
- D. Customize the products in the imported portfolio.

QUESTION: 5

A SysOps administrator is required to monitor free space on Amazon EBS volumes attached to Microsoft Windows-based Amazon EC2 instances within a company's account. The administrator must be alerted to potential issues.

What should the administrator do to receive email alerts before low storage space affects EC2 instance performance?

- A. Use built-in Amazon CloudWatch metrics, and configure CloudWatch alarms and an Amazon SNS topic for email notifications.
- B. Use AWS CloudTrail logs and configure the trail to send notifications to an Amazon SNS topic.
- C. Use the Amazon CloudWatch agent to send disk space metrics, then set up CloudWatch alarms using an Amazon SNS topic.
- D. Use AWS Trusted Advisor and enable email notification alerts for EC2 disk space.

QUESTION: 6

A SysOps administrator has enabled AWS CloudTrail in an AWS account. If CloudTrail is disabled, it must be re-enabled immediately.

What should the SysOps administrator do to meet these requirements WITHOUT writing custom code?

- A. Add the AWS account to AWS Organizations. Enable CloudTrail in the management account.
- B. Create an AWS Config rule that is invoked when CloudTrail configuration changes. Apply the AWS-ConfigureCloudTrailLogging automatic remediation action.

C. Create an AWS Config rule that is invoked when CloudTrail configuration changes. Configure the rule to invoke an AWS Lambda function to enable CloudTrail.

D. Create an Amazon EventBridge hourly rule with a schedule pattern to run an AWS Systems Manager Automation runbook to enable CloudTrail.

QUESTION: 7

A company has an application that collects notifications from thousands of alarm systems. The notifications include alarm notifications and information notifications. The information notifications include the system arming processes, disarming processes, and sensor status.

All notifications are kept as messages in an Amazon Simple Queue Service (Amazon SQS) queue. Amazon EC2 instances that are in an Auto Scaling group process the messages. A SysOps administrator needs to implement a solution that prioritizes alarm notifications over information notifications.

Which solution will meet these requirements?

- A. Adjust the Auto Scaling group to scale faster when a high number of messages is in the queue.
- B. Use the Amazon Simple Notification Service (Amazon SNS) fanout feature with Amazon SQS to send the notifications in parallel to all the EC2 instances.
- C. Add an Amazon DynamoDB stream to accelerate the message processing.
- D. Create a queue for alarm notifications and a queue for information notifications. Update the application to collect messages from the alarm notifications queue first.

QUESTION: 8

A SysOps administrator has an AWS CloudFormation template of the company's existing infrastructure in us-west-2. The administrator attempts to use the template to launch a new stack in eu-west-1, but the stack only partially deploys, receives an error message, and then rolls back.

Why would this template fail to deploy? (Select TWO.)

- A. The template referenced an IAM user that is not available in eu-west-1.
- B. The template referenced an Amazon Machine Image (AMI) that is not available in eu-west-1.
- C. The template did not have the proper level of permissions to deploy the resources.
- D. The template requested services that do not exist in eu-west-1.
- E. CloudFormation templates can be used only to update existing services

QUESTION: 9

A SysOps administrator has many Windows Amazon EC2 instances that need to share a file system between nodes. The SysOps administrator creates an Amazon Elastic File System (Amazon EFS) file share. After creation of the file share, the SysOps administrator is having trouble mounting the file share to the EC2 instances.

Which action should the SysOps administrator take so that the EC2 instances can share the files?

- A. Delete the EFS file share. Create an Amazon FSx for Windows File Server file share for the EC2 instances.
- B. Use the correct IAM credentials to mount the EFS file share.
- C. Configure NFSv4 support on the Windows operating system that is running on the EC2 instances.
- D. Allow the correct port for NFS through the security group and network ACL.

QUESTION: 10

A company with multiple AWS accounts needs to obtain recommendations for AWS Lambda functions and identify optimal resource configurations for each Lambda function.

How should a SysOps administrator provide these recommendations?

- A. Create an AWS Serverless Application Repository and export the Lambda function recommendations.
- B. Enable AWS Compute Optimizer and export the Lambda function recommendations.
- C. Enable all features of AWS Organizations and export the recommendations from AWS CloudTrail Insights.
- D. Run AWS Trusted Advisor and export the Lambda function recommendations.

QUESTION: 11

A SysOps administrator is responsible for a legacy, CPU-heavy application. The application can only be scaled vertically. Currently, the application is deployed on a single t3. large Amazon EC2 instance. The system is showing 90% CPU usage and significant performance latency after a few minutes.

What change should be made to alleviate the performance problem?

- A. Change the Amazon EBS volume to Provisioned IOPs.
- B. Upgrade to a compute-optimized instance.
- C. Add additional t3. large instances to the application.
- D. Purchase Reserved Instances.

QUESTION: 12

A SysOps administrator manages policies for many AWS member accounts in an AWS Organizations structure. Administrators on other teams have access to the account root user credentials of the member accounts. The SysOps administrator must prevent all teams, including their administrators, from using Amazon DynamoDB. The solution must not affect the ability of the teams to access other AWS services.

Which solution will meet these requirements?

- A. In all member accounts, configure IAM policies that deny access to all DynamoDB resources for all users, including the root user.
- B. Create a service control policy (SCP) in the management account to deny all DynamoDB actions. Apply the SCP to the root of the organization.**
- C. In all member accounts, configure IAM policies that deny AmazonDynamoDBFullAccess to all users, including the root user.
- D. Remove the default service control policy (SCP) in the management account. Create a replacement SCP that includes a single statement that denies all DynamoDB actions.

QUESTION: 13

A company has a memory-intensive application that runs on a fleet of Amazon EC2 instances behind an Elastic Load Balancer (ELB). The instances run in an Auto Scaling group. A SysOps administrator must ensure that the application can scale based on the number of users that connect to the application.

Which solution will meet these requirements?

- A. Create a scaling policy that will scale the application based on the ActiveConnectionCount Amazon CloudWatch metric that is generated from the ELB.**
- B. Create a scaling policy that will scale the application based on the mem\_used Amazon CloudWatch metric that is generated from the ELB.
- C. Create a scheduled scaling policy to increase the number of EC2 instances in the Auto Scaling group to support additional connections.
- D. Create and deploy a script on the ELB to expose the number of connected users as a custom Amazon CloudWatch metric. Create a scaling policy that uses the metric.

QUESTION: 14

A database is running on an Amazon RDS Multi-AZ DB instance. A recent security audit found the database to be out of compliance because it was not encrypted.

Which approach will resolve the encryption requirement?

- A. Log in to the RDS console and select the encryption box to encrypt the database.
- B. Create a new encrypted Amazon EBS volume and attach it to the instance.
- C. Encrypt the standby replica in the secondary Availability Zone and promote it to the primary instance.
- D. Take a snapshot of the RDS instance, copy and encrypt the snapshot, and then restore to the new RDS instance.**

QUESTION: 15

A company using AWS Organizations requires that no Amazon S3 buckets in its production accounts should ever be deleted.

What is the SIMPLEST approach the SysOps administrator can take to ensure S3 buckets in those accounts can never be deleted?

- A. Set up MFA Delete on all the S3 buckets to prevent the buckets from being deleted.
- B. Use service control policies to deny the s3: DeleteBucket action on all buckets in production accounts.**
- C. Create an IAM group that has an IAM policy to deny the s3: DeleteBucket action on all buckets in production accounts.
- D. Use AWS Shield to deny the s3: DeleteBucket action on the AWS account instead of all S3 buckets.

QUESTION: 16

A SysOps administrator needs to monitor a process that runs on Linux Amazon EC2 instances. If the process stops, the process must restart automatically. The Amazon CloudWatch agent is already installed on all the EC2 instances.

Which solution will meet these requirements?

- A. Add a procstat monitoring configuration to the CloudWatch agent for the process. Create an Amazon EventBridge event rule that initiates an AWS Systems Manager Automation runbook to restart the process after the process stops.
- B. Add a StatsD monitoring configuration to the CloudWatch agent for the process. Create a CloudWatch alarm that initiates an AWS Systems Manager Automation runbook to restart the process after the process stops.
- C. Add a StatsD monitoring configuration to the CloudWatch agent for the process. Create an Amazon EventBridge event rule that initiates an AWS Systems Manager Automation runbook to restart the process after the process stops.

**D. Add a procstat monitoring configuration to the CloudWatch agent for the process. Create a CloudWatch alarm that initiates an AWS Systems Manager Automation runbook to restart the process after the process stops.**

QUESTION: 17

A company is migrating its production file server to AWS. All data that is stored on the file server must remain accessible if an Availability Zone becomes unavailable or when system maintenance is performed. Users must be able to interact with the file server through the SMB protocol. Users also must have the ability to manage file permissions by using Windows ACLs.

Which solution will meet these requirements?

- A. Create a single AWS Storage Gateway file gateway.
- B. Create an Amazon FSx for Windows File Server Multi-AZ file system.**
- C. Deploy two AWS Storage Gateway file gateways across two Availability Zones. Configure an Application Load Balancer in front of the file gateways.
- D. Deploy two Amazon FSx for Windows File Server Single-AZ 2 file systems. Configure Microsoft Distributed File System Replication (DFSR).

QUESTION: 18

A company is expanding globally and needs to back up data on Amazon Elastic Block Store (Amazon EBS) volumes to a different AWS Region. Most of the EBS volumes that store the data are encrypted, but some of the EBS volumes are unencrypted. The company needs the backup data from all the EBS volumes to be encrypted.

Which solution will meet these requirements with the LEAST management overhead?

- A. Configure a lifecycle policy in Amazon Data Lifecycle Manager (Amazon DLM) to create the EBS volume snapshots with cross-Region backups enabled. Encrypt the snapshot copies by using AWS Key Management Service (AWS KMS).**
- B. Create a point-in-time snapshot of the EBS volumes. When the snapshot status is COMPLETED, copy the snapshots to another Region and set the Encrypted parameter to False.
- C. Create a point-in-time snapshot of the EBS volumes. Copy the snapshots to an Amazon S3 bucket that uses server-side encryption. Turn on S3 Cross-Region Replication on the S3 bucket.
- D. Schedule an AWS Lambda function with the Python runtime. Configure the Lambda function to create the EBS volume snapshots, encrypt the unencrypted snapshots, and copy the snapshots to another Region.

QUESTION: 19

A company uploaded its website files to an Amazon S3 bucket that has S3 Versioning enabled. The company uses an Amazon CloudFront distribution with the S3 bucket as the origin. The company recently modified the files, but the object names remained the same. Users report that old content is still appearing on the website.

How should a SysOps administrator remediate this issue?

- A. Create a CloudFront invalidation, and add the path of the updated files.
- B. Create a CloudFront signed URL to update each object immediately.
- C. Configure an S3 origin access identity (OAI) to display only the updated files to users.
- D. Disable S3 Versioning on the S3 bucket so that the updated files can replace the old files.

QUESTION: 20

A company has two VPC networks named VPC A and VPC B. The VPC A CIDR block is 10.0.0.0/16 and the VPC B CIDR block is 172.31.0.0/16. The company wants to establish a VPC peering connection named pcx-12345 between both VPCs.

Which rules should appear in the route table of VPC A after configuration? (Select TWO.)

- A. Destination: 10.0.0.0/16, Target: Local
- B. Destination: 172.31.0.0/16, Target: Local
- C. Destination: 10.0.0.0/16, Target: pcx-12345
- D. Destination: 172.31.0.0/16, Target: pcx-12345
- E. Destination: 10.0.0.0/16, Target: 172.31.0.0/16

QUESTION: 21

A company wants to use only IPv6 for all its Amazon EC2 instances. The EC2 instances must not be accessible from the internet, but the EC2 instances must be able to access the internet. The company creates a dual-stack VPC and IPv6-only subnets.

How should a SysOps administrator configure the VPC to meet these requirements?

- A. Create and attach a NAT gateway. Create a custom route table that includes an entry to point all IPv6 traffic to the NAT gateway. Attach the custom route table to the IPv6-only subnets.
- B. Create and attach an internet gateway. Create a custom route table that includes an entry to point all IPv6 traffic to the internet gateway. Attach the custom route table to the IPv6-only subnets.

C. Create and attach an egress-only internet gateway. Create a custom route table that includes an entry to point all IPv6 traffic to the egress-only internet gateway. Attach the custom route table to the IPv6-only subnets.

D. Create and attach an internet gateway and a NAT gateway. Create a custom route table that includes an entry to point all IPv6 traffic to the internet gateway and all IPv4 traffic to the NAT gateway. Attach the custom route table to the IPv6-only subnets.

#### QUESTION: 22

A company hosts a production MySQL database on an Amazon Aurora single-node DB cluster. The database is queried heavily for reporting purposes. The DB cluster is experiencing periods of performance degradation because of high CPU utilization and maximum connections errors. A SysOps administrator needs to improve the stability of the database.

Which solution will meet these requirements?

A. Create an Aurora Replica node. Create an Auto Scaling policy to scale replicas based on CPU utilization. Ensure that all reporting requests use the read-only connection string.

B. Create a second Aurora MySQL single-node DB cluster in a second Availability Zone. Ensure that all reporting requests use the connection string for this additional node.

C. Create an AWS Lambda function that caches reporting requests. Ensure that all reporting requests call the Lambda function.

D. Create a multi-node Amazon ElastiCache cluster. Ensure that all reporting requests use the ElastiCache cluster. Use the database if the data is not in the cache.

#### QUESTION: 23

A company hosts an internal application on Amazon EC2 On-Demand Instances behind an Application Load Balancer (ALB). The instances are in an Amazon EC2 Auto Scaling group. Employees use the application to provide product prices to potential customers. The Auto Scaling group is configured with a dynamic scaling policy and tracks average CPU utilization of the instances.

Employees have noticed that sometimes the application becomes slow or unresponsive. A SysOps administrator finds that some instances are experiencing a high CPU load. The Auto Scaling group cannot scale out because the company is reaching the EC2 instance service quota.

The SysOps administrator needs to implement a solution that provides a notification when the company reaches 70% or more of the EC2 instance service quota.

Which solution will meet these requirements in the MOST operationally efficient manner?

- A. Create an AWS Lambda function that lists the EC2 instances, counts the EC2 instances, and compares the total number against the applied quota value by using the Service Quotas API. Configure the Lambda function to publish an Amazon Simple Notification Service (Amazon SNS) notification if the quota utilization is equal to or greater than 70%. Create an Amazon EventBridge rule to invoke the Lambda function.
- B. Create an AWS Lambda function that lists the EC2 instances, counts the EC2 instances, and compares the total number against the applied quota value by using the Amazon CloudWatch Metrics API. Configure the Lambda function to publish an Amazon Simple Notification Service (Amazon SNS) notification if the quota utilization is equal to or greater than 70%. Create an Amazon EventBridge rule to invoke the Lambda function.
- C. Use the Service Quotas console to create an Amazon CloudWatch alarm for the EC2 instances. Configure the alarm with quota utilization equal to or greater than 70%. Configure the alarm to publish an Amazon Simple Notification Service (Amazon SNS) notification when the alarm enters ALARM state.
- D. Create an Amazon CloudWatch alarm. Configure the alarm with a threshold of 70% for the CPUUtilization metric for the EC2 instances. Configure the alarm to publish an Amazon Simple Notification Service (Amazon SNS) notification when the alarm enters ALARM state.

QUESTION: 24

An application accesses data through a file system interface. The application runs on Amazon EC2 instances in multiple Availability Zones, all of which must share the same data. While the amount of data is currently small, the company anticipates that it will grow to tens of terabytes over the lifetime of the application.

What is the MOST scalable storage solution to fulfill this requirement?

- A. Connect a large Amazon EBS volume to multiple instances and schedule snapshots.
- B. Deploy Amazon EFS in the VPC and create mount targets in multiple subnets.
- C. Launch an EC2 instance and share data using SMB/CIFS or NFS.
- D. Deploy an AWS Storage Gateway cached volume on Amazon EC2.

QUESTION: 25

A SysOps administrator uses AWS Systems Manager Session Manager to connect to instances. After the SysOps administrator launches a new Amazon EC2 instance, the EC2 instance does not appear in the Session Manager list of systems that are

available for connection. The SysOps administrator verifies that Systems Manager Agent is installed, updated, and running on the EC2 instance.

What is the reason for this issue?

- A. The SysOps administrator does not have access to the key pair that is required for connection.
- B. The SysOps administrator has not attached a security group to the EC2 instance to allow SSH on port 22.
- C. The EC2 instance does not have an attached IAM role that allows Session Manager to connect to the EC2 instance.
- D. The EC2 instance ID has not been entered into the Session Manager configuration.

QUESTION: 26

A company's SysOps administrator maintains a highly available environment. The environment includes Amazon EC2 instances and an Amazon RDS Multi-AZ database. The EC2 instances are in an Auto Scaling group behind an Application Load Balancer.

Recently, the company conducted a failover test. The SysOps administrator needs to decrease the failover time of the RDS database by at least 10%.

Which solution will meet this requirement?

- A. Increase the RDS instance size.
- B. Modify the RDS cluster to run in a single Availability Zone.
- C. Create a read replica in another AWS Region. Promote the read replica in case of failure.
- D. Create an RDS proxy. Point the application to the proxy endpoint.

QUESTION: 27

A company has users that deploy Amazon EC2 instances that have more disk performance capacity than is required. A SysOps administrator needs to review all Amazon Elastic Block Store (Amazon EBS) volumes that are associated with the instances and create cost optimization recommendations based on IOPS and throughput.

What should the SysOps administrator do to meet these requirements in the MOST operationally efficient way?

- A. Use the monitoring graphs in the EC2 console to view metrics for EBS volumes. Review the consumed space against the provisioned space on each volume. Identify any volumes that have low utilization.

B. Stop the EC2 instances from the EC2 console. Change the EC2 instance type to Amazon EBS-optimized. Start the EC2 instances.

C. Opt in to AWS Compute Optimizer. Allow sufficient time for metrics to be gathered. Review the Compute Optimizer findings for EBS volumes.

D. Install the fio tool onto the EC2 instances and create a .cfg file to approximate the required workloads. Use the benchmark results to gauge whether the provisioned EBS volumes are of the most appropriate type.

QUESTION: 28

A SysOps administrator is responsible for managing a fleet of Amazon EC2 instances. These EC2 instances upload build artifacts to a third-party service. The third-party service recently implemented a strict IP allow list that requires all build uploads to come from a single IP address.

What change should the systems administrator make to the existing build fleet to comply with this new requirement?

A. Move all of the EC2 instances behind a NAT gateway and provide the gateway IP address to the service.

B. Move all of the EC2 instances behind an internet gateway and provide the gateway IP address to the service.

C. Move all of the EC2 instances into a single Availability Zone and provide the Availability Zone IP address to the service.

D. Move all of the EC2 instances to a peered VPC and provide the VPC IP address to the service.

QUESTION: 29

A company uses AWS Organizations to host several applications across multiple AWS accounts. Several teams are responsible for building and maintaining the infrastructure of the applications across the AWS accounts.

A SysOps administrator must implement a solution to ensure that user accounts and permissions are centrally managed. The solution must be integrated with the company's existing on-premises Active Directory environment. The SysOps administrator already has enabled AWS IAM Identity Center (AWS Single Sign-On) and has set up an AWS Direct Connect connection.

What is the MOST operationally efficient solution that meets these requirements?

A. Create a Simple AD domain, and establish a forest trust relationship with the on-premises Active Directory domain. Set the Simple AD domain as the identity source for IAM Identity Center. Create the required role-based permission sets. Assign each group of users to the AWS accounts that the group will manage.

B. Create an Active Directory domain controller on an Amazon EC2 instance that is joined to the on-premises Active Directory domain. Set the Active Directory domain controller as the identity source for IAM Identity Center. Create the required role-based permission sets. Assign each group of users to the AWS accounts that the group will manage.

C. Create an AD Connector that is associated with the on-premises Active Directory domain. Set the AD Connector as the identity source for IAM Identity Center. Create the required role-based permission sets. Assign each group of users to the AWS accounts that the group will manage.

D. Use the built-in SSO directory as the identity source for IAM Identity Center. Copy the users and groups from the on-premises Active Directory domain. Create the required role-based permission sets. Assign each group of users to the AWS accounts that the group will manage.

QUESTION: 30

A company uses an Amazon S3 bucket to store data files. The S3 bucket contains hundreds of objects. The company needs to replace a tag on all the objects in the S3 bucket with another tag.

What is the MOST operationally efficient way to meet this requirement?

A. Use S3 Batch Operations. Specify the operation to replace all object tags.

B. Use the AWS CLI to get the tags for each object. Save the tags in a list. Use S3 Batch Operations. Specify the operation to delete all object tags. Use the AWS CLI and the list to retag the objects.

C. Use the AWS CLI to get the tags for each object. Save the tags in a list. Use the AWS CLI and the list to remove the object tags. Use the AWS CLI and the list to retag the objects.

D. Use the AWS CLI to copy the objects to another S3 bucket. Add the new tag to the copied objects. Delete the original objects.

QUESTION: 31

A company is planning to expand into an additional AWS Region for disaster recovery purposes. The company uses AWS CloudFormation, and its infrastructure is well-defined as code. The company would like to reuse as much of its existing code as possible when deploying resources to additional Regions.

A SysOps administrator is reviewing how Amazon Machine Images (AMIs) are selected in AWS CloudFormation, but is having trouble making the same stack work in the new Region.

Which action would make it easier to manage multiple Regions?

- A. Name each AMI in the new Region exactly the same as the equivalent AMI in the first Region.
- B. Duplicate the stack so unique AMI names can be coded into the appropriate stack.
- C. Create an alias for each AMI so that an AMI can be referenced by a common name across Regions.
- D. Create a Mappings section in the stack, and define the Region to AMI associations.

QUESTION: 32

A company has attached the following policy to an IAM user:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "rds:Describe*",
      "Resource": "*"
    },
    {
      "Effect": "Allow",
      "Action": "ec2:*",
      "Resource": "*",
      "Condition": {
        "StringEquals": {
          "ec2:Region": "us-east-1"
        }
      }
    },
    {
      "Effect": "Deny",
      "NotAction": [
        "ec2:*",
        "s3:GetObject"
      ],
      "Resource": "*"
    }
  ]
}
```

Which of the following actions are allowed for the IAM user?

- A. Amazon RDS Described Instances action in the us-east-1 Region
- B. Amazon S3 Put Object operation in a bucket named testbucket

- C. Amazon EC2 Describe instances action in the us-east-1 Region
- D. Amazon EC2 AttachNetworkInterface action in the eu-west-1 Region

QUESTION: 33

A SysOps administrator is provisioning an Amazon Elastic File System (Amazon EFS) file system to provide shared storage across multiple Amazon EC2 instances. The instances all exist in the same VPC across multiple Availability Zones. There are two instances in each Availability Zone. The SysOps administrator must make the file system accessible to each instance with the lowest possible latency.

Which solution will meet these requirements?

- A. Create a mount target for the EFS file system in the VPC. Use the mount target to mount the file system on each of the instances.
- B. Create a mount target for the EFS file system in one Availability Zone of the VPC. Use the mount target to mount the file system on the instances in that Availability Zone. Share the directory with the other instances.
- C. Create a mount target for each instance. Use each mount target to mount the EFS file system on each respective instance.
- D. Create a mount target in each Availability Zone of the VPC. Use the mount target to mount the EFS file system on the instances in the respective Availability Zone.**

QUESTION: 34

A company wants to monitor the number of Amazon EC2 instances that it is running. The company also wants to automate a service quota increase when the number of instances reaches a specific threshold.

Which solution meets these requirements?

- A. Create an Amazon CloudWatch alarm to monitor Service Quotas. Configure the alarm to invoke an AWS Lambda function to request a quota increase when the alarm reaches the threshold.**
- B. Create an AWS Config rule to monitor Service Quotas. Call an AWS Lambda function to remediate the action and increase the quota.
- C. Create an Amazon CloudWatch alarm to monitor the AWS Health Dashboard. Configure the alarm to invoke an AWS Lambda function to request a quota increase when the alarm reaches the threshold.
- D. Create an Amazon CloudWatch alarm to monitor AWS Trusted Advisor service quotas. Configure the alarm to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic to increase the quota.

QUESTION: 35

A company has deployed a serverless web application on AWS. The application uses Amazon S3 buckets and an Amazon CloudFront distribution for static content. The application also uses Amazon API Gateway HTTP APIs to store and retrieve dynamic data from a database in Amazon DynamoDB.

The company is considering expansion to new geographic regions. The company must gather statistics about the country of origin of the website's clients by analyzing the source IP addresses of the clients that access the application.

Which combination of steps should the company take to gather the source IP addresses? (Select TWO.)

- A. Configure S3 access logging for the S3 buckets that contain content.
- B. Configure CloudFront standard logging for the distribution.
- C. Configure S3 data events in AWS CloudTrail.
- D. Configure Amazon CloudWatch logging for the HTTP APIs in API Gateway.
- E. Create an AWS CloudTrail trail. Modify the client-side application to send telemetry data to the trail.

QUESTION: 36

A SysOps administrator wants to upload a file that is 1 TB in size from on-premises to an Amazon S3 bucket using multipart uploads.

What should the SysOps administrator do to meet this requirement?

- A. Upload the file using the S3 console.
- B. Use the `s3api copy-object` command.
- C. Use the `s3api put-object` command.
- D. Use the `s3 cp` command.

QUESTION: 37

A company has a stateful web application that is hosted on Amazon EC2 instances in an Auto Scaling group. The instances run behind an Application Load Balancer (ALB) that has a single target group. The ALB is configured as the origin in an Amazon CloudFront distribution. Users are reporting random logouts from the web application.

Which combination of actions should a SysOps administrator take to resolve this problem? (Select TWO.)

- A. Change to the least outstanding requests algorithm on the ALB target group.
- B. Configure cookie forwarding in the CloudFront distribution cache behavior.
- C. Configure header forwarding in the CloudFront distribution cache behavior.
- D. Enable group-level stickiness on the ALB listener rule.

**E. Enable sticky sessions on the ALB target group.**

QUESTION: 38

A SysOps administrator is maintaining a web application using an Amazon CloudFront web distribution, an Application Load Balancer (ALB), Amazon RDS, and Amazon EC2 in a VPC. All services have logging enabled. The administrator needs to investigate HTTP Layer 7 status codes from the web application.

Which log sources contain the status codes? (Select TWO.)

- A. VPC Flow Logs
- B. AWS CloudTrail logs
- C. ALB access logs**
- D. CloudFront access logs**
- E. RDS logs

QUESTION: 39

A SysOps administrator has an Amazon S3 website and wants to restrict access to a single Amazon CloudFront distribution. Visitors to the website should not be able to circumvent CloudFront or view the S3 website directly from the bucket.

Which AWS service or feature will meet these requirements?

- A. S3 bucket ACL
- B. AWS Firewall Manager
- C. Amazon Route 53 private hosted zone
- D. Origin access identity (OAI)**

QUESTION: 40

A company stores critical data in Amazon S3 buckets. A SysOps administrator must build a solution to record all S3 API activity.

Which action will meet this requirement?

- A. Configure S3 bucket metrics to record object access logs.
- B. Create an AWS CloudTrail trail to log data events for all S3 objects.**
- C. Enable S3 server access logging for each S3 bucket.
- D. Use AWS IAM Access Analyzer for Amazon S3 to store object access logs.

QUESTION: 41

A company has an AWS Lambda function in Account A. The Lambda function needs to read the objects in an Amazon S3 bucket in Account B. A SysOps administrator must create corresponding IAM roles in both accounts.

Which solution will meet these requirements?

**A. In Account A, create a Lambda execution role to assume the role in Account B. In Account B, create a role that the function can assume to gain access to the S3 bucket.**

B. In Account A, create a Lambda execution role that provides access to the S3 bucket. In Account B, create a role that the function can assume.

C. In Account A, create a role that the function can assume. In Account B, create a Lambda execution role that provides access to the S3 bucket.

D. In Account A, create a role that the function can assume to gain access to the S3 bucket. In Account B, create a Lambda execution role to assume the role in Account A.

QUESTION: 42

A SysOps administrator must create a solution that automatically shuts down any Amazon EC2 instances that have less than 10% average CPU utilization for 60 minutes or more.

Which solution will meet this requirement in the MOST operationally efficient manner?

A. Implement a cron job on each EC2 instance to run once every 60 minutes and calculate the current CPU utilization. Initiate an instance shutdown if CPU utilization is less than 10%.

**B. Implement an Amazon CloudWatch alarm for each EC2 instance to monitor average CPU utilization. Set the period at 1 hour, and set the threshold at 10%. Configure an EC2 action on the alarm to stop the instance.**

C. Install the unified Amazon CloudWatch agent on each EC2 instance, and enable the Basic level predefined metric set. Log CPU utilization every 60 minutes, and initiate an instance shutdown if CPU utilization is less than 10%.

D. Use AWS Systems Manager Run Command to get CPU utilization from each EC2 instance every 60 minutes. Initiate an instance shutdown if CPU utilization is less than 10%.

QUESTION: 43

A SysOps administrator configures an application to run on Amazon EC2 instances behind an Application Load Balancer (ALB) in a simple scaling Auto Scaling group with the default settings. The Auto Scaling group is configured to use the RequestCountPerTarget metric for scaling. The SysOps administrator notices that the RequestCountPerTarget metric exceeded the specified limit twice in 180 seconds.

How will the number of EC2 instances in this Auto Scaling group be affected in this scenario?

- A. The Auto Scaling group will launch an additional EC2 instance every time the RequestCountPerTarget metric exceeds the predefined limit.
- B. The Auto Scaling group will launch one EC2 instance and will wait for the default cooldown period before launching another instance.
- C. The Auto Scaling group will send an alert to the ALB to rebalance the traffic and not add new EC2 instances until the load is normalized.
- D. The Auto Scaling group will try to distribute the traffic among all EC2 instances before launching another instance.

QUESTION: 44

A company is deploying an ecommerce application to an AWS Region that is located in France. The company wants users from only France to be able to access the first version of the application. The company plans to add more countries for the next version of the application. A SysOps administrator needs to configure the routing policy in Amazon Route 53.

Which solution will meet these requirements?

- A. Use a geoproximity routing policy. Select France as the location in the record.
- B. Use a geolocation routing policy. Select France as the location in the record.
- C. Use an IP-based routing policy. Select all IP addresses that are allocated to France in the record.
- D. Use a geoproximity routing policy. Select all IP addresses that are allocated to France in the record.

QUESTION: 45

A SysOps administrator launches an Amazon EC2 instance in a private subnet of a VPC. When the SysOps administrator attempts a curl command from the command line of the EC2 instance, the SysOps administrator cannot connect to <https://www.example.com>.

What should the SysOps administrator do to resolve this issue?

- A. Ensure that there is an outbound security group for port 443 to 0.0.0.0/0.
- B. Ensure that there is an inbound security group for port 443 from 0.0.0.0/0.
- C. Ensure that there is an outbound network ACL for ephemeral ports 1024-66535 to 0.0.0.0/0.
- D. Ensure that there is an outbound network ACL for port 80 to 0.0.0.0/0.

QUESTION: 46

A company plans to run a public web application on Amazon EC2 instances behind an Elastic Load Balancer (ELB). The company's security team wants to protect the

website by using AWS Certificate Manager (ACM) certificates. The ELB must automatically redirect any HTTP requests to HTTPS.

Which solution will meet these requirements?

- A. Create an Application Load Balancer that has one HTTPS listener on port 80. Attach an SSL/TLS certificate to listener port 80. Create a rule to redirect requests from HTTP to HTTPS.
- B. Create an Application Load Balancer that has one HTTP listener on port 80 and one HTTPS protocol listener on port 443. Attach an SSL/TLS certificate to listener port 443. Create a rule to redirect requests from port 80 to port 443.**
- C. Create an Application Load Balancer that has two TCP listeners on port 80 and port 443. Attach an SSL/TLS certificate to listener port 443. Create a rule to redirect requests from port 80 to port 443.
- D. Create a Network Load Balancer that has two TCP listeners on port 80 and port 443. Attach an SSL/TLS certificate to listener port 443. Create a rule to redirect requests from port 80 to port 443.

QUESTION: 47

A company's security policy states that connecting to Amazon EC2 instances is not permitted through SSH and RDP. If access is required, authorized staff can connect to instances by using AWS Systems Manager Session Manager.

Users report that they are unable to connect to one specific Amazon EC2 instance that is running Ubuntu and has AWS Systems Manager Agent (SSM Agent) preinstalled. These users are able to use Session Manager to connect to other instances in the same subnet, and they are in an IAM group that has Session Manager permission for all instances.

What should a SysOps administrator do to resolve this issue?

- A. Add an inbound rule for port 22 in the security group associated with the Ubuntu instance.
- B. Assign the AmazonSSMManagedInstanceCore managed policy to the EC2 instance profile for the Ubuntu instance.**
- C. Configure the SSM Agent to log in with a user name of "ubuntu".
- D. Generate a new key pair, configure Session Manager to use this new key pair, and provide the private key to the users.

QUESTION: 48

A company uses AWS CloudFormation to deploy its application infrastructure. Recently, a user accidentally changed a property of a database in a CloudFormation template and performed a stack update that caused an interruption to the application. A SysOps administrator must determine how to modify the deployment

process to allow the DevOps team to continue to deploy the infrastructure, but prevent against accidental modifications to specific resources.

Which solution will meet these requirements?

- A. Set up an AWS Config rule to alert based on changes to any CloudFormation stack. An AWS Lambda function can then describe the stack to determine if any protected resources were modified and cancel the operation.
- B. Set up an Amazon EventBridge event with a rule to initiate based on any CloudFormation API call. An AWS Lambda function can then describe the stack to determine if any protected resources were modified and cancel the operation.
- C. Launch the CloudFormation templates using a stack policy with an explicit allow for all resources and an explicit deny of the protected resources with an action of Update: \*.
- D. Attach an IAM policy to the DevOps team role that prevents a CloudFormation stack from updating, with a condition based on the specific Amazon Resource Names (ARNs) of the protected resources.

QUESTION: 49

A company plans to migrate several of its high performance computing (HPC) virtual machines (VMs) to Amazon EC2 instances on AWS. A SysOps administrator must identify a placement group for this deployment. The strategy must minimize network latency and must maximize network throughput between the HPC VMs.

Which strategy should the SysOps administrator choose to meet these requirements?

- A. Deploy the instances in a cluster placement group in one Availability Zone.
- B. Deploy the instances in a partition placement group in two Availability Zones.
- C. Deploy the instances in a partition placement group in one Availability Zone.
- D. Deploy the instances in a spread placement group in two Availability Zones.

QUESTION: 50

A company migrates a write-once, read-many (WORM) drive to an Amazon S3 bucket that has S3 Object Lock configured in governance mode. During the migration, the company copies unneeded data to the S3 bucket.

A SysOps administrator attempts to delete the unneeded data from the S3 bucket by using the AWS CLI. However, the SysOps administrator receives an error.

Which combination of steps should the SysOps administrator take to successfully delete the unneeded data? (Select TWO.)

- A. Increase the Retain Until Date.

- B. Assume a role that has the s3: BypassLegalRetention permission.
- C. Assume a role that has the s3: BypassGovernanceRetention permission.
- D. Include the x-amz-bypass-governance-retention: true header in the request when issuing the delete command.
- E. Include the x-amz-bypass-legal-retention: true header in the request when issuing the delete command.

QUESTION: 51

A company needs to take an inventory of applications that are running on multiple Amazon EC2 instances. The company has configured users and roles with the appropriate permissions for AWS Systems Manager. An updated version of Systems Manager Agent has been installed and is running on every instance. While configuring an inventory collection, a SysOps administrator discovers that not all the instances in a single subnet are managed by Systems Manager.

What must the SysOps administrator do to fix this issue?

- A. Ensure that all the EC2 instances have the correct tags for Systems Manager access.
- B. Configure AWS Identity and Access Management Access Analyzer to determine and automatically remediate the issue.
- C. Ensure that all the EC2 instances have an instance profile with Systems Manager access.
- D. Configure Systems Manager to use an interface VPC endpoint.

QUESTION: 52

A development team created and deployed a new AWS Lambda function 15 minutes ago. Although the function was invoked many times, Amazon CloudWatch Logs are not showing any log messages.

What is one cause of this?

- A. The developers did not enable log messages for this Lambda function.
- B. The Lambda function's role does not include permissions to create CloudWatch Logs items.
- C. The Lambda function raises an exception before the first log statement has been reached.
- D. The Lambda functions creates local log files that have to be shipped to CloudWatch Logs first before becoming visible.

QUESTION: 53

A SysOps administrator has set up a new Amazon EC2 instance as a web server in a public subnet. The instance uses HTTP port 80 and HTTPS port 443.

The SysOps administrator has confirmed internet connectivity by downloading operating system updates and software from public repositories. However, the SysOps administrator cannot access the instance from a web browser on the internet.

Which combination of steps should the SysOps administrator take to troubleshoot this issue? (Select THREE.)

- A. Ensure that the inbound rules of the instance's security group allow traffic on ports 80 and 443.
- B. Ensure that the outbound rules of the instance's security group allow traffic on ports 80 and 443.
- C. Ensure that ephemeral ports 1024-65535 are allowed in the inbound rules of the network ACL that is associated with the instance's subnet.
- D. Ensure that ephemeral ports 1024-65535 are allowed in the outbound rules of the network ACL that is associated with the instance's subnet.
- E. Ensure that the filtering rules for any firewalls that are running on the instance allow inbound traffic on ports 80 and 443.
- F. Ensure that AWS WAF is turned on for the instance and is blocking web traffic.

QUESTION: 54

A company is running Amazon RDS for PostgreSQL Multi-AZ DB clusters. The company uses an AWS CloudFormation template to create the databases individually with a default size of 100 GB. The company creates the databases every Monday and deletes the databases every Friday.

Occasionally, the databases run low on disk space and initiate an Amazon CloudWatch alarm. A SysOps administrator must prevent the databases from running low on disk space in the future.

Which solution will meet these requirements with the FEWEST changes to the application?

- A. Modify the CloudFormation template to use Amazon Aurora PostgreSQL as the DB engine.
- B. Modify the CloudFormation template to use Amazon DynamoDB as the database. Activate storage auto scaling during creation of the tables.
- C. Modify the Cloud Formation template to activate storage auto scaling on the existing DB instances.
- D. Create a CloudWatch alarm to monitor DB instance storage space. Configure the alarm to invoke the VACUUM command.

QUESTION: 55

A company manages its production applications across several AWS accounts. The company hosts the production applications on Amazon EC2 instances that run Amazon Linux 2. The EC2 instances are spread across multiple VPCs. Each VPC uses its own Amazon Route 53 private hosted zone for private DNS.

A VPC from Account A needs to resolve private DNS records from a private hosted zone that is associated with a different VPC in Account B.

What should a SysOps administrator do to meet these requirements?

- A. In Account A, create an AWS Systems Manager document that updates the `/etc/resolv.conf` file across all EC2 instances to point to the AWS provided default DNS resolver for the VPC in Account B.
- B. In Account A, create an AWS CloudFormation template that associates the private hosted zone from Account B with the private hosted zone in Account A.
- C. In Account A, use the AWS CLI to create a VPC association authorization. When the association is created, use the AWS CLI in Account B to associate the VPC from Account A with the private hosted zone in Account B.
- D. In Account B, use the AWS CLI to create a VPC association authorization. When the association is created, use the AWS CLI in Account A to associate the VPC from Account B with the private hosted zone in Account A.

QUESTION: 56

A company has 50 AWS accounts and wants to create an identical Amazon VPC in each account. Any changes the company makes to the VPCs in the future must be implemented on every VPC.

What is the MOST operationally efficient method to deploy and update the VPCs in each account?

- A. Create an AWS CloudFormation template that defines the VPC. Sign in to the AWS Management Console under each account. Create a stack from the template.
- B. Create a shell script that configures the VPC using the AWS CLI. Provide a list of accounts to the shell script from a text file. Create the VPC in every account in the list.
- C. Create an AWS Lambda function that configures the VPC. Store the account information in Amazon DynamoDB. Grant Lambda access to the DynamoDB table. Create the VPC in every account in the list.
- D. Create an AWS CloudFormation template that defines the VPC. Create an AWS CloudFormation StackSet based on the template. Deploy the template to all accounts using the stack set.

QUESTION: 57

A company has an on-premises DNS solution and wants to resolve DNS records in an Amazon Route 53 private hosted zone for example.com. The company has set up an AWS Direct Connect connection for network connectivity between the on-premises network and the VPC. A SysOps administrator must ensure that an on-premises server can query records in the example.com domain.

What should the SysOps administrator do to meet these requirements?

- A. Create a Route 53 Resolver inbound endpoint. Attach a security group to the endpoint to allow inbound traffic on TCP/UDP port 53 from the on-premises DNS servers.
- B. Create a Route 53 Resolver inbound endpoint. Attach a security group to the endpoint to allow outbound traffic on TCP/UDP port 53 to the on-premises DNS servers.
- C. Create a Route 53 Resolver outbound endpoint. Attach a security group to the endpoint to allow inbound traffic on TCP/UDP port 53 from the on-premises DNS servers.
- D. Create a Route 53 Resolver outbound endpoint. Attach a security group to the endpoint to allow outbound traffic on TCP/UDP port 53 to the on-premises DNS servers.

QUESTION: 58

A company has an Amazon RDS for Microsoft SQL Server database that supports a serverless application. The database constantly has a high number of new database connections. A few times each week, the database reaches the maximum number of connections and experiences performance problems.

A SysOps administrator needs to improve the performance efficiency of the database.

Which solution will meet this requirement?

- A. Create an Amazon API Gateway API to pass connections to the database. Configure the application to connect to the database through the API instead of connecting directly to the database.
- B. Use RDS Proxy to create a proxy. Configure the application to connect to the database through the proxy instead of connecting directly to the database.
- C. Create an Amazon Aurora DB cluster. Turn on connection pooling on the DB cluster. Migrate the data to the DB cluster. Cut over the application to the new database.
- D. Create an RDS for SQL Server Multi-AZ database. Configure the application to connect to the Multi-AZ endpoint instead of directly to the database.

QUESTION: 59

A company has an Amazon EC2 instance that supports a production system. The EC2 instance is backed by an Amazon Elastic Block Store (Amazon EBS) volume. The EBS volume's drive has filled to 100% capacity, which is causing the application on the EC2 instance to experience errors.

Which solution will remediate these errors in the LEAST amount of time?

- A. Modify the EBS volume by adding additional drive space. Log on to the EC2 instance. Use the file system-specific commands to extend the file system.
- B. Create a snapshot of the existing EBS volume. When the snapshot is complete, create an EBS volume of a larger size from the snapshot in the same Availability Zone as the EC2 instance. Attach the new EBS volume to the EC2 instance. Mount the file system.
- C. Create a new EBS volume of a larger size in the same Availability Zone as the EC2 instance. Attach the EBS volume to the EC2 instance. Copy the data from the existing EBS volume to the new EBS volume.
- D. Stop the EC2 instance. Change the EC2 instance to a larger instance size that includes additional drive space. Start the EC2 instance.

QUESTION: 60

A company wants to apply an existing Amazon Route 53 private hosted zone to a new VPC to allow for customized resource name resolution within the VPC. The SysOps administrator created the VPC and added the appropriate resource record sets to the private hosted zone.

Which step should the SysOps administrator take to complete the setup?

- A. Associate the Route 53 private hosted zone with the VPC.
- B. Create a rule in the default security group for the VPC that allows traffic to the Route 53 Resolver.
- C. Ensure the VPC network ACLs allow traffic to the Route 53 Resolver.
- D. Ensure there is a route to the Route 53 Resolver in each of the VPC route tables.

QUESTION: 61

A company is testing a new version of a web application. The application is hosted on Amazon EC2 instances that run behind an Application Load Balancer (ALB). The company uses Amazon Route 53 for DNS service. In a Route 53 hosted zone, the company creates a `www.example.com` CNAME record that points to the ALB's DNS name.

A SysOps administrator must test the new version of the application while the current version of the application remains fully functional.

Which combination of actions should the SysOps administrator take to meet these requirements? (Select TWO.)

- A. Create a latency routing policy for the current version of the application and the new version of the application.
- B. Create a second ALB and additional EC2 instances to host the new version of the application.**
- C. Create a failover routing policy for the first ALB. Use the policy to test the new version of the application.
- D. Set up Route 53 health checks on the EC2 instances that run behind the first ALB.**
- E. Create a weighted routing policy for both ALBs. Gradually increase the traffic weight for the first ALB. Gradually decrease the traffic weight for the second ALB.

QUESTION: 62

A company that uses AWS Organizations recently implemented AWS Control Tower. The company now needs to centralize identity management. A SysOps administrator must federate AWS IAM Identity Center (AWS Single Sign-On) with an external SAML 2.0 identity provider (IdP) to centrally manage access to all the company's accounts and cloud applications.

Which prerequisites must the SysOps administrator have so that the SysOps administrator can connect to the external IdP? (Select TWO.)

- A. A copy of the IAM Identity Center SAML metadata**
- B. The IdP metadata, including the public X.509 certificate**
- C. The IP address of the IdP
- D. Root access to the management account
- E. Administrative permissions to the member accounts of the organization