

**Q1)**

You've just deployed an AWS Lambda function. The lambda function will be invoked via the API Gateway.

The API Gateway will need to control access to it.

Which of the following mechanisms is not supported for API Gateway?

- ☐ Lambda Authorizer
  - ☒ STS
  - ☐ IAM permissions with sigv4
  - ☐ Cognito User Pools
- 

**Q2)**

Your development team created a popular mobile app written for Android and are searching for a technology that can send messages to mobile devices using a mobile app.

Mobile app users will register and be given permission to access AWS resources.

Which technology would you recommend for subscribing users to messages?

- ☐ Kinesis
  - ☐ SQS
  - ☐ SES
  - ☒ SNS
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**Q3)**

You are working for a small organization that does not have a database administrator and are needing to install a database on the cloud quickly to support an accounting application used by thousands of users.

The application will act as a backend and will perform (CRUD) operations such as create, read, update and delete as well as inner joins.

Which database is best suited for this scenario?

- ☒ RDS
  - ☐ DynamoDB
  - ☐ Redshift
  - ☐ ElastiCache
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**Q4)**

You are a developer working on AWS Lambda functions that are triggered by Amazon API Gateway and would like to perform testing for new API versions.

Which of the following features will accomplish this task?

- ☐ Mapping Templates
  - ☐ Stage Variables
  - ☐ Custom Authorizers
  - ☒ Canary Deployment
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**Q5)**

When your company first created an AWS account, you began with a single sign-in principal called a root user account that had complete access to all AWS services and resources.

What should you do to adhere to best practices for using the root user account?

- ☒ It should be accessible by one admin only after enabling Multi-factor authentication
  - ☐ It should be accessible using the access\_key\_id and secret\_access\_key\_id
  - ☐ It should be accessible by 3 to 6 members of the IT team
  - ☐ It should be accessible by no one, throw away the passwords after creating the account
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**Q6)**

Your company is new to cloud computing and would like to host a static HTML5 website on the cloud and be able to access it via domain www.mycompany.com.

You have created a bucket in Amazon Simple Storage Service (S3), enabled website hosting and set the index.html as the default page.

Finally, you create an Alias record in Amazon Route 53 that points to the S3 website endpoint of your S3 bucket. When you test the domain www.mycompany.com you get the following error: 'HTTP response code 403 (Access Denied)'.

What can you do to resolve this error?

- ☒ Create a bucket policy

- ☐ Create an IAM role
  - ☐ Enable CORS
  - ☐ Enable Encryption
- 

**Q7)**

**You were assigned to a project that requires the use of the AWS CLI to build a project with AWS CodeBuild.**

**Your project's root directory includes the buildspec.yml file to run build commands and would like your build artifacts encrypted.**

**Which of the following will accomplish this?**

- ☐ Use the AWS Encryption SDK
  - ☐ Use an AWS Lambda Hook
  - ☒ Specify a KMS key to use
  - ☐ Use In Flight encryption (SSL)
- 

**Q8)**

**You are responsible for an application that runs on multiple Amazon EC2 instances. In front of the instances is an Internet-facing load balancer that takes requests from clients over the internet and distributes them to the EC2 instances.**

**A health check is configured to ping the index.html page found in the root directory for the health status.**

**When accessing the website via the internet visitors of the website receive timeout errors. What should be checked first to resolve the issue?**

- ☐ The application is down
  - ☐ IAM Roles
  - ☒ Security Groups
  - ☐ The ALB is warming up
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**Q9)**

**A security company is requiring all developers to perform server-side encryption with customer-provided encryption keys when performing operations in AWS S3.**

**Developers should write software with C# using the AWS SDK and implement the requirement in the PUT, GET, Head and Copy operations.**

**Which of the following encryption methods meets this requirement?**

- ☐ SSE-KMS
  - ☐ Client Side Encryption
  - ☒ SSE-C
  - ☐ SSE-S3
- 

**Q10)**

**You are a Developer consultant working on several client projects using cloud technology and spending less time managing resources and more time focusing on applications is a priority.**

**You have created AWS CloudFormation templates that are reusable by taking advantage of input parameters to name resources based on client names.**

**You would like to save your templates on the cloud, which storage option should you choose?**

- ☐ ECR
  - ☒ S3
  - ☐ EBS
  - ☐ EFS
- 

**Q11)**

**Your e-commerce company needs to improve its software delivery process and is moving away from the waterfall methodology. You decided that every application should be built using the best CI/CD practices and every application should be packaged and deployed as a Docker container.**

**The Docker images should be stored in ECR and pushed with AWS CodePipeline and AWS CodeBuild.**

**When you attempt to do this, the last step fails with an authorization issue. What is the most likely issue?**

- ☒ The IAM permissions are wrong for the CodeBuild service
  - ☐ The ECR repository is stale, you must delete and re-create it
  - ☐ CodeBuild cannot talk to ECR because of security group issues
  - ☐ The ECS instances are misconfigured and must contain additional data in /etc/ecs/ecs.config
- 

**Q12)**

**You are a DynamoDB developer for an aerospace company that requires you to write 6 objects per second of 4.5KB in size each.**

**What write capacity unit is needed for your project?**

- ☒ 30
- ☐ 15
- ☐ 24
- ☐ 46

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**Q13) Which of the following statements is not true for SNS?**

- ☒ SNS Messages can be retrieved at a later date
- ☐ Messages are sent to all subscribers
- ☐ Lambda can be a target of SNS
- ☐ SQS can be a target of SNS

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**Q14)**

**When you update your application versions, AWS Elastic Beanstalk performs an in-place update and your application becomes unavailable to users for a short period of time.**

**Instead, you would like to redirect traffic to the new version using a DNS switch. Which deployment method will allow you to do this?**

- ☐ rolling
- ☐ rolling with additional batches
- ☐ immutable
- ☒ blue/green

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**Q15)**

**You are a Developer working with AWS CloudFormation templates.**

**Your templates provision a VPC with one subnet and would like other stacks to use the output value of the subnet created.**

**What must you do to provide this information to another stack?**

- ☐ Import
- ☐ Output
- ☒ Export
- ☐ Expose

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**Q16)**

**You are a developer working at a cloud company that embraces serverless.**

**You have performed your initial deployment and would like to work towards adding API Gateway stages and associate them with existing deployments.**

**Your stages will include prod, test, and dev and will match AWS Lambda function aliases.**

**Which of the following features must you add to achieve this? (select two)**

- ☒ Lambda Aliases
- ☒ Stage Variables
- ☐ Lambda X-Ray integration
- ☐ Mapping Templates

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**Q17)**

**A company has AWS Lambda functions where each is invoked by other AWS services such as Amazon Kinesis Data Firehose, Amazon API Gateway, Amazon Simple Storage Service or Amazon CloudWatch Events.**

**What all functions have in common is that they all process heavy workloads such as big data analysis, large file processing, and statistical computations.**

**What should you do to improve the performance of your AWS Lambda functions without changing your code?**

- ☐ Change your function runtime to use Golang
- ☒ Increase the RAM assigned to your function
- ☐ Increase the instance type for your functions
- ☐ Increase the timeout

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**Q18)**

**Your security team is concerned that proper training on encryption was not given to the development team.**

**They have requested your help in determining which KMS API requests are being made, including both management requests such as create/disable keys to cryptographic requests such as encrypt/decrypt.**

**What AWS service should you use to get this information?**

- ☐ KMS policies
- ☒ CloudTrail

- VPC Flow Logs
- IAM

#### Q19)

**You are a Developer for a company that uses Amazon ECS container instances. You are revising agent configuration variables for tasks that were written by junior architects.**

**You find that a setting was missed and will need to include an option in the configuration to authorize IAM roles.**

**Which of the following options must you set?**

- ✔ ECS\_ENABLE\_TASK\_IAM\_ROLE
- ECS\_AVAILABLE\_LOGGING\_DRIVERS
- ECS\_ENGINE\_AUTH\_DATA
- ECS\_CLUSTER

#### Q20)

**A company that specializes in cloud communications platform as a service allows software developers to programmatically use their services to send and receive text messages.**

**The initial platform did not have a scalable architecture as all components were hosted on one server and should be redesigned for high availability and scalability.**

**Which of the following options can be used to implement the REST API? (select two)**

- CloudWatch + CloudFront
- SES + S3
- ✔ ALB + ECS
- ✔ API Gateway + Lambda

#### Q21)

**As a DynamoDB expert, companies in your area rely on your expertise to train their developers. You have been hired to consult with a company that uses the NoSQL database for mobile applications.**

**The developers are using DynamoDB to perform operations such as GetItem but are limited in knowledge. They would like to be more efficient with retrieving some attributes rather than all.**

**Which of the following recommendations would you provide?**

- Use the --query parameter
- ✔ Specify a ProjectionExpression
- Use a FilterExpression
- Use a Scan

#### Q22)

**A developer at a university is encrypting a large XML payload transferred over the network using AWS KMS and wants to test the application before going to production.**

**What is the maximum data size supported by AWS KMS?**

- 10MB
- 1MB
- 16KB
- ✔ 4KB

#### Q23)

**You are a Developer working for the food channel. Currently, there are 3 EC2 instances running behind an Application Load Balancer and have been asked to create a web application where web visitors enter ingredients and recipes will be generated.**

**No complex joins would be required and IAM policies should be created for each table. Which of the following database technologies meets these requirements?**

- ElastiCache
- RDS MySQL
- ✔ DynamoDB
- MongoDB

#### Q24)

**You are a Developer handling a deployment service that automates application deployments to Amazon EC2 instances.**

**Most of the deployments consist of code, but sometimes web and configuration files. One of your deployments failed and was rolled back by AWS CodeDeploy to the last known good application revision.**

**During rollback which of the following instances did AWS CodeDeploy deploy first to?**

- To new instances
- ✔ To the failed instances

- To the non-failed instances
- You cannot rollback CodeDeploy

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**Q25)**

**You are a developer working on an AWS CloudFormation template that will provision resources for a company's cloud infrastructure.**

**Your template is composed of three stacks which are Stack-A, Stack-B, and Stack-C. Stack-A will provision a VPC, a security group and subnets for public web applications that will be referenced in Stack-B and Stack-C.**

**After running the stacks you decide to delete them, in which order should you do it?**

- Stack A, Stack C then Stack B
- Stack A, then Stack B, then Stack C
- ✓ Stack B, then Stack C, then Stack A
- Stack C then Stack A then Stack B

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**Q26)**

**Your company has embraced cloud-native microservices architectures. New applications must be dockerized and stored in a registry service offered by AWS.**

**The architecture should support dynamic port mapping and support multiple tasks from a single service on the same container instance. All services should run on the same EC2 instance.**

**Which technology will best fit your company requirements?**

- Application Load Balancer + Beanstalk
- Classic Load Balancer + Beanstalk
- ✓ Application Load Balancer + ECS
- Classic Load Balancer + ECS

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**Q27)**

**Applications running on EC2 instances process messages from an SQS queue but sometimes they experience errors due to messages not being processed.**

**To isolate the messages, which option will help with further debugging?**

- Reduce the VisibilityTimeout
- Use DeleteMessage
- Increase the VisibilityTimeout
- ✓ Implement a DLQ

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**Q28)**

**A developer created an online shopping application that runs on EC2 instances behind load balancers.**

**The same web application version is hosted on several EC2 instances and the instances run in an Auto Scaling group. The application uses STS to request credentials but after an hour your application stops working.**

**What is the most likely cause of this?**

- A lambda function revokes your access every hour
- Your IAM policy is wrong
- The IAM service is experiencing downtime once an hour
- ✓ Your application needs to renew the credentials after 1 hour when they expire

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**Q29)**

**Your team lead has finished creating a build project in the management console. and a build spec has been defined for the project.**

**After the build is run, CodeBuild fails to pull a Docker image into the build environment.**

**What is the most likely cause?**

- CodeBuild cannot work with custom Docker images
- The Docker image is missing some tags
- The Docker image is too big
- ✓ Missing IAM permissions for the CodeBuild Service

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**Q30)**

**Your company stores security reports in Amazon Simple Storage Service (S3) but is worried that after storing 10 years' worth of documents they will have to migrate their data to another service provider due to storage limits.**

**Your team lead has asked you to look into this matter, what is the maximum storage limit per S3 buckets?**

- ✓ unlimited
- 10 TB

- 25 TB
- 5 TB

Q31)

You are a developer working on a web application written in Java and would like to use AWS Elastic Beanstalk for deployment because it would handle deployment, capacity provisioning, load balancing, auto-scaling, and application health monitoring.

In the past, you connected to your provisioned instances through SSH to issue configuration commands but instead would like a configuration file that automatically applies settings for you.

Which of the following options would help do this?

- ✔ Include config files in .ebextensions/ at the root of your source code
- Deploy a CloudFormation wrapper
- Use SSM parameter store as an input to your Elastic Beanstalk Configurations
- Use an AWS Lambda hook

Q32)

You are the owner of a small company running workloads on AWS and recently lost all your developers.

You need to provision more resources for a client and while going through existing AWS CloudFormation templates you decide that you need to change several major sections to fulfill a request.

Which of the following sections in an AWS CloudFormation template is not valid?

- ✔ Groups
- Mappings
- Parameters
- Metadata

Q33)

You are a Developer for a company that has multiple AWS accounts managed with AWS Organizations.

You are in the process of creating an Amazon Simple Storage Service (S3) bucket named 'prod' in one account that will contain log files from EC2 instances in production.

When creating the bucket an error message displays 'Bucket name already exists'.

You check your current account for a duplicate name and none exists. What is the most likely reason for this?

- The bucket name is too short
- You have the wrong IAM permissions
- ✔ Someone else in the world already created a bucket named 'prod'
- 'prod' is a reserved bucket name

Q34)

You are an administrator for a video on demand web application where content creators upload videos directly into S3. Recent support requests from customers state that uploading video files near 500GB size causes the website to break.

After doing some investigation you find the following error: 'Your proposed upload exceeds the maximum allowed size'. What must you do to solve this error?

- ✔ You need to use multi-part upload for large files
- The maximum file size is 5 GB
- Your IAM permissions are incorrect
- You need to place a service limit request increase with AWS

Q35)

You are the administrator for a software development company specializing in medical algorithms. and have created an AWS CodePipeline pipeline through the AWS Management Console.

You would like to view a list of API calls performed by your pipeline because many changes have been made by you and other administrators.

Which AWS service will provide this information?

- IAM
- CodePipeline Logs
- CloudWatch Logs
- ✔ CloudTrail

Q36)

Recently in your organization, the AWS X-Ray SDK was bundled into each function to record outgoing calls for tracing purposes.

When your team lead goes to the X-Ray service in the AWS Management Console to get an overview of the information collected, they discover that no data is available.

What is the most likely reason for this?

- ☒ Fix the IAM Role
  - ☐ Enable X-Ray sampling
  - ☐ X-Ray only works with AWS Lambda aliases
  - ☐ Change the security groups rules
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**Q37)**

**You are an administrator setting permissions to other IAM users with limited permissions.**

**On the AWS Management Console, you created a dev group where new developers will be added to and on your workstation you configured a developer profile.**

**You would like to test that this user cannot terminate instances. Which of the following options would you execute?**

- ☐ Retrieve the policy using the EC2 meta data service and use the IAM policy simulator
  - ☐ Use the AWS CLI --test option
  - ☐ Using the CLI, create a dummy EC2 and delete it using another CLI call
  - ☒ Use the AWS CLI --dry-run option
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**Q38)**

**A company has hired you as a team lead over a group of developers working on security applications. Developers will work within Linux executing commands with the AWS CLI.**

**When developers receive authorization exceptions which of the following services will not assist in resolving the issue?**

- ☐ CloudTrail
  - ☐ IAM
  - ☐ STS
  - ☒ CloudWatch
- 

**Q39)**

**A weather app for the Android phone assists citizens with preparation tips for Hurricanes in Florida before hurricanes land.**

**The next version of the weather app will include notification messages directly to mobile apps notifying of updates and of upcoming developing storms.**

**Which of the following technologies will help with the second version?**

- ☐ Kinesis
  - ☐ SQS
  - ☐ Lambda
  - ☒ SNS
- 

**Q40)**

**You have a workload that requires persistent block storage for Microsoft SQL Server. High availability and durability is a requirement.**

**The solution must allow for daily snapshots and be mountable to other EC2 instances in case of instance failures.**

**Which of the following storage options should you choose?**

- ☐ FTP
  - ☒ EBS
  - ☐ S3
  - ☐ RDS
- 

**Q41)**

**You are a cloud architect consultant in a Silicon Valley type like city. Many companies in the city have mobile apps that capture and send data to Amazon Kinesis Data Streams. They have been getting a ProvisionedThroughputExceededException exception.**

**You have been contacted to help and upon careful analysis, you are seeing that messages are being sent one by one, while being sent at a high rate.**

**Which of the following options will help with the exception while keeping costs at a minimum?**

- ☐ Increase the number of shards
  - ☐ Decrease the Stream retention duration
  - ☒ Batch messages
  - ☐ Use Exponential Backoff
- 

**Q42)**

**A company's application is deployed by AWS Elastic Beanstalk to EC2 instances in two availability zones. The application makes API requests to AWS API Gateway and the security team requested that authentication be added to these requests.**

**Which of the following authentication methods will fulfill the requirement?**

- ☐ Cognito User Pools
- ☐ Lambda Authorizer
- ☒ IAM permissions with sigv4
- ☐ API Gateway User Pools

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**Q43) What can control deployment details by changing file permissions in AWS CodeCommit and AWS CodeDeploy during application deployment and verification of the deployment success?**

- ☒ Define a .appspec file in the root directory
- ☐ Define a .buildspec file in the codebuild/ directory
- ☐ Define a .buildspec file in the root directory
- ☐ Define a .appspec file in the codebuild/ directory
- ☐ None of these

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**Q44)**

**A university has created a student portal that is accessible through a smartphone app and web application. The smartphone app is available in both Android and IOS and the web application works on most major browsers.**

**Students will be able to do group study online and create forum questions. All changes made in smartphone devices should be available even when offline and should synchronize with other devices.**

**Which of the following AWS services will meet these requirements?**

- ☒ Cognito Sync
- ☐ Cognito Identity Pools
- ☐ S3
- ☐ EFS

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**Q45)**

**Your application is polling for SQS messages consistently and you seem to have excessive SQS calls and CPU overhead with such a model.**

**What could be a resolution to this?**

- ☐ Only check the SQS queue every five minutes
- ☐ SQS is only designed to handle small amounts of messages, switch to Kinesis
- ☐ Aggregate messages, where a single message actually contains multiple "sub-messages"
- ☒ Enable SQS Long Polling

**Explanation:-**Long polling will reduce the overhead of the CPU and not require excessive polls. " Only check the SQS queue every five minutes" is incorrect because it will reduce the application. " SQS is only designed to handle small amounts of messages, switch to Kinesis" is incorrect because SQS can handle potentially millions of messages at a time and volume is not a concern here. "Aggregate messages, where a single message actually contains multiple "sub-messages" is incorrect because SQS does not have a mechanism for this, and your application would incur the burden of having to aggregate and de-aggregate the messages.

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**Q46)**

**You are writing an application with one of the AWS SDKs and you are looking how to do something and do not see a particular call available.**

**You are fairly certain that the call exists, and look up the native API documentation to confirm it exists.**

**Which of the following statements is FALSE in this case?**

- ☒ SDK's in AWS are incomplete and are only designed with occasional, specific use cases in mind.

**Explanation:-**The SDK's are designed with the majority of use cases in mind, thus answer A is the only statement that is incorrect (thus the correct answer to this question). The rest are true statements.

- ☐ Not every SDK has all services/actions. Check to see if another SDK in another language could be used.
- ☐ You do not have the latest SDK version.
- ☐ The direct call may be named something else in the SDK, or be 'wrapped' under another method.

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**Q47) When writing code using the SDK, and we want to create a new bucket, what is the best methodology to follow?**

- ☐ First check for the existence of the bucket, then create the bucket if it does not already exist.
- ☒ Simply create the bucket. If it already exists, an exception will be returned to evaluate.

**Explanation:-**It is considered best practice to produce as few calls as possible. AWS does not want us making unnecessary calls. In this situation, if a bucket already exists, the system will not allow us to create it again; thus we can work with exception handling. This will result in half the calls for this action. Fewer calls equals a lower latency in our workload, fewer calls to pay for, and fewer calls for AWS to process. "Be creative when creating a bucket, and think hard about its name to ensure it is good to use in marketing materials" is incorrect because we typically will only use buckets in automation; otherwise if this is being accessed via humans, we will typically use our own domain name to front the bucket or CloudFront distribution. Buckets do not need to be creative, just unique. Commonly, buckets may just be random hashes, GUIDs or other unique values.

- ☐ Be creative when creating a bucket, and think hard about its name to ensure it is good to use in marketing materials.
- ☐ We cannot create buckets with the SDK.

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**Q48)**

**You have evaluated multiple deployment strategies and have decided to use CodeDeploy.**

**How does AWS CodeDeploy actually manage deployment of your applications on premises?**



- CodeDeploy will integrate with Chef or Puppet to deploy your application remotely
- CodeDeploy establishes an SSH connection with the remote system to deploy the code
- ✓ The CodeDeploy agent can be loaded on systems in or outside of AWS and will be used for code deployment

**Explanation:-**AWS CodeDeploy uses an agent which can be loaded on any system whether in AWS or not. These remote systems could be EC2 instances, systems on premises or even another cloud provider. The agent will communicate with the AWS CodeDeploy service for deployment instructions.

- You cannot do this; CodeDeploy only works on AWS EC2 instances

**Q49) What does the following IAM policy do?**

- Allows all DynamoDB "List" and "Describe" actions to the table
- Denies all DynamoDB "List" and "Describe" actions to the table
- Denies all DynamoDB actions except all "List" and "Describe" actions to the table
- ✓ Denies all AWS actions except all DynamoDB "List" and "Describe" actions to the table

**Explanation:-**Because this is a Deny statement, and the "NotAction" effect is called out, all AWS actions are denied EXCEPT all DynamoDB "List" actions and all DynamoDB "Describe" actions. "Allows all DynamoDB "List" and "Describe" actions to the table" is incorrect because this statement is simply a deny; however, no allows are present. If an action is not denied, it does not mean it's allowed. AWS requires an explicit allow statement for an action to be allowed. "Denies all DynamoDB "List" and "Describe" actions to the table" is incorrect because of the "NotAction" statement; it would be correct if "Action" were used instead of "NotAction". "Denies all DynamoDB actions except all "List" and "Describe" actions to the table" is incorrect because the Deny effect coupled with "NotAction" means ALL AWS actions will be denied except the DyanmoDB List and Describe actions. It is the only one that mentions denying only DynamoDB actions.

**Q50)**

**You have been hired to work for a company that produces open-source software. In the last year, the company has been working with its cloud engineers to build server applications.**

**Your task will be to work with other developers in creating a REST API following the serverless approach. All the developers in the company only develop in the Node.Js language.**

**Which of the following technologies should you choose?**

- ALB + ECS on EC2
- ELB + EC2
- ✓ API Gateway + Lambda
- Route 53 + EC2

**Q51) Which of the following statements is true about AWS CloudFormation?**

- CloudFormation templates can only be valid for one region and account
- ✓ The order in which resources are created does not need to be specified.
- CloudFormation templates are static and do not allow parameters
- CloudFormation templates lock the configuration of the created resources

**Q52)**

**As a senior architect, you are responsible for the development, support, maintenance and implementation of all database applications written using NoSQL technology.**

**A new project demands a throughput requirement of 10 strongly consistent reads per second of 6KB in size each.**

**How many read capacity units will you need when configuring your DynamoDB table?**

- ✓ 20
- 30
- 60
- 10

**Q53)**

**The AWS account administrator for the company gave you web access to their AWS Management Console. You need to create several API Gateway API's to assist developers in waiting to retrieve data from the company's database.**

**Your developers have worked on the API in the development environment, but it seems that the changes they did are not reflected in the API. What needs to happen?**

- Use Stage Variables
- Enable Custom Authorizer
- Check IAM permissions
- ✓ Deploy to a stage

**Q54)**

**You are a Developer working with data on an EC2 instance running Windows. You have installed Kinesis Agent for Windows to stream JSON-formatted log files to Amazon Simple Storage Service (S3) via Amazon Kinesis Data Firehose.**

**You gathered a list of all available sink types to change the destination of the log if needed. Which of the following sink types is not supported by Kinesis Firehose?**

- ☐ Redshift
  - ☐ S3
  - ☐ ElasticSearch
  - ☒ ElastiCache
- 

**Q55)**

**An AWS Lambda function written in Golang was deployed six months ago and recently a new version was released that included the use of the X-Ray SDK. The change called for permissions to be altered to the IAM role of the Lambda function to allow the X-Ray SDK to send data to X-Ray.**

**While testing you find that data is not being sent to X-Ray, what is a likely reason?**

- ☒ Lambda X-Ray active tracing must be enabled
  - ☐ The IAM permissions
  - ☐ Authorize Lambda source in the X-Ray console
  - ☐ The X-Ray agent must be loaded with the code
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**Q56)**

**You are a Developer working with Amazon ECS container instances and would like to isolate credentials so that a container never has access to credentials intended for another container belonging to another task.**

**Which of the following actions must you take to achieve that?**

- ☒ Create an IAM Role for ECS and assign it to the tasks
  - ☐ Load the credentials within the docker container
  - ☐ Assign an IAM role to the EC2 instance
  - ☐ Use the parameter store to pass in AWS credentials
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**Q57)**

**You are a Developer at a company and are responsible for the data management of the AWS Kinesis streams.**

**The security team has required stricter requirements by leveraging security mechanisms available with the Kinesis Data Streams service that won't require code changes on your end.**

**Which of the following features meet the requirements? (Select two)**

- ☐ Client Side Encryption
  - ☒ Encryption in flight with HTTPS endpoint
  - ☐ SSE-C encryption
  - ☒ KMS encryption for data at rest
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**Q58)**

**Your team lead has asked you to learn AWS CloudFormation to create a collection of related AWS resources and provision them in an orderly fashion.**

**You decide to provide AWS-specific parameter types to catch invalid values. When specifying parameters which of the following is not a valid Parameter type?**

- ☐ CommaDelimitedList
  - ☒ DependentParameter
  - ☐ String
  - ☐ AWS::EC2::KeyPair::KeyName
- 

**Q59)**

**You have set up an internet facing load balancer to route requests to virtual machines inside a private VPC.**

**The virtual machines will be launched from a single custom Amazon Machine Image (AMI), private to your organization, with pre-installed software.**

**Which of the following AWS services will help you create your virtual machines?**

- ☒ EC2
  - ☐ RDS
  - ☐ ElastiCache
  - ☐ DynamoDB
- 

**Q60)**

**You are producing data to AWS Kinesis using AWS Lambda which sits behind an API Gateway. Data represents a clickstream from the users navigating your website.**

**What in case you want to make sure your Kinesis stream can scale over time due to increased volume, what would you need to do? (Select two)**

- ☐ You need to enable auto-scaling
- ☒ You need to add shards
- ☒ The partition key must take a great number of different values

- The partition key must only take few values

**Q61)**

**You have launched several AWS Lambda functions written in Java. A new requirement was given that over 1MB of data should be passed to the functions and should be encrypted and decrypted at runtime.**

**Which of the following methods is suitable for encrypting the data?**

- KMS Encryption and store as environment variable
- Envelope Encryption and store as environment variable
- ✓ Envelope Encryption and store as file within the code
- KMS direct encryption and store as file

**Q62)**

**You have created a continuous delivery service model with automated steps using AWS CodePipeline. Your pipeline uses your code, maintained in a CodeCommit repository, AWS CodeBuild, and AWS Elastic Beanstalk to automatically deploy your code every time there is a code change.**

**However, the deployment part to Elastic Beanstalk is taking a very long time due to resolving dependencies on all of your 100 target EC2 instances.**

**Which of the following actions should you take to improve performance with limited code changes?**

- ✓ Bundle the dependencies in the source code during the last stage of CodeBuild
- Bundle the dependencies in the source code in CodeCommit
- Store the dependencies in S3
- Create a custom platform for Elastic Beanstalk

**Q63)**

**An organization has a requirement to send emails to multiple users from their application hosted on an EC2 instance in a private VPC.**

**Email recipients should not be IAM users and you will reuse the organization's email template for use in the email.**

**Which of the following AWS services should you use?**

- SQS with Lambda
- ✓ SES
- SNS
- Kinesis

**Q64)**

**A company uses AWS CodeDeploy to deploy applications from GitHub to EC2 instances running Amazon Linux. The deployment process uses a file called appspec.yml for specifying deployment hooks. A final lifecycle event should be specified to verify the deployment success.**

**Which of the following hook events should be used to verify the success of the deployment?**

- ApplicationStart
- AfterInstall
- ✓ ValidateService
- AllowTraffic