**AWS Solution Architect:**

**MCQ Exam**

**QUESTION 1**

You've created your first load balancer and have registered your EC2 instances with the load balancer. Elastic Load Balancing routinely performs health checks on all the registered EC2 instances and automatically distributes all incoming requests to the DNS name of your load balancer across your registered, healthy EC2 instances. By default, the load balancer uses the \_\_\_\_\_ protocol for checking the health of your instances.

1. HTTPS
2. HTTP
3. ICMP
4. IPv6

**Answer: B. HTTP**

**QUESTION 2**

Which of the below mentioned options is not available when an instance is launched by Auto Scaling with EC2 Classic?

1. Public IP
2. Elastic IP
3. Private DNS
4. Private IP

**Answer: B.Elastic IP**

**QUESTION 3**

A company hosts its product information webpages on AWS. The existing solution uses multiple Amazon C2 instances behind an Application Load Balancer in an Auto Scaling group.

The website also uses a custom DNS name and communicates with HTTPS only using a dedicated SSL certificate.

The company is planning a new product launch and wants to be sure that users from around the world have the best possible experience on the new website. What should a solutions architect do to meet these requirements?

1. Redesign the application to use Amazon CloudFront.
2. Redesign the application to use AWS Elastic Beanstalk.
3. Redesign the application to use a Network Load Balancer.
4. Redesign the application to use Amazon S3 static website hosting.

**Answer: A. Redesign the application to use Amazon CloudFront.**

**QUESTION 4**

Which of the following is true of Amazon EC2 security group?

1. You can modify the outbound rules for EC2-Classic.
2. You can modify the rules for a security group only if the security group controls the traffic for just one instance.
3. You can modify the rules for a security group only when a new instance is created.
4. You can modify the rules for a security group at any time.

**Answer:** **D.You can modify the rules for a security group at any time.**

**QUESTION 5**

Amazon EBS provides the ability to create backups of any Amazon EC2 volume into what is known as

1. snapshots
2. images
3. instance backups
4. mirrors

**Answer :A. Snapshots**

**QUESTION 6**

Can a user get a notification of each instance start / terminate configured with Auto Scaling?

1. Yes, if configured with the Launch Config
2. Yes, always
3. Yes, if configured with the Auto Scaling group
4. No

**Answer:** **C. Yes, if configured with the Auto Scaling group**

**QUESTION 7**

In AWS Free Tier account which one the following is default EBS volume to attach with EC2 Instance.

1. Provisioned IOPs
2. General Purpose
3. Cold HDD
4. None of them

**Answer: B General Purpose**

**QUESTION 8**

A company recently deployed a two-tier application in two Availability Zones in the us-east-1 Region. The databases are deployed in a private subnet while the web servers are deployed in a public subnet. An internet gateway is attached to the VPC. The application and database run on Amazon EC2 instances. The database servers are unable to access patches on the internet. A solutions architect needs to design a solution that maintains database security with the least operational overhead.

Which solution meets these requirements?

1. Deploy a NAT gateway inside the public subnet for each Availability Zone and associate it with an Elastic IP address. Update the routing table of the private subnet to use it as the default route.
2. Deploy a NAT gateway inside the private subnet for each Availability Zone and associate it with an Elastic IP address. Update the routing table of the private subnet to use it as the default route.
3. Deploy two NAT instances inside the public subnet for each Availability Zone and associate them with Elastic IP addresses. Update the routing table of the private subnet to use it as the default route.
4. Deploy two NAT instances inside the private subnet for each Availability Zone and associate them with Elastic IP addresses. Update the routing table of the private subnet to use it as the default route.

**Answer: A. Deploy a NAT gateway inside the public subnet for each Availability Zone and associate it with an Elastic IP address. Update the routing table of the private subnet to use it as the default route.**

**QUESTION 9**

A company has an application hosted on Amazon EC2 instances in two VPCs across different AWS Regions To communicate with each other, the instances use the internet for connectivity. The security team wants to ensure that no communication between the instances happens over the internet

What should a solutions architect do to accomplish this''

1. Create a NAT gateway and update the route table of the EC2 instances' subnet
2. Create a VPC endpoint and update the route table of the EC2 instances' subnet
3. Create a VPN connection and update the route table of the EC2 instances' subnet
4. Create a VPC peering connection and update the route table of the EC2 instances' subnet

**Answer: D. Create a VPC peering connection and update the route table of the EC2 instances' subnet**

**QUESTION 10**

An Elastic IP address (EIP) is a static IP address designed for dynamic cloud computing. With an EIP, you can mask the failure of an instance or software by rapidly remapping the address to another instance in your account. Your EIP is associated with your AWS account, not a particular EC2 instance, and it remains associated with your account until you choose to explicitly release it. By default how many EIPs is each AWS account limited to on a per region basis?

1. 1
2. 5
3. Unlimited
4. 10

**Answer: B.5**

**QUESTION 11**

Which of the following is true of Amazon EC2 security group?

1. You can modify the outbound rules for EC2-Classic.
2. You can modify the rules for a security group only if the security group controls the traffic for just one instance.
3. You can modify the rules for a security group only when a new instance is created.
4. You can modify the rules for a security group at any time.

**Answer: D. You can modify the rules for a security group at any time.**

**QUESTION 12**

You are building infrastructure for a data warehousing solution and an extra request has come through that there will be a lot of business reporting queries running all the time and you are not sure if your current DB instance will be able to handle it. What would be the best solution for this?

1. DB Parameter Groups
2. Read Replicas
3. Multi-AZ DB Instance deployment
4. Database Snapshots

**Answer: B. Read replicas**

**QUESTION 13**

A company has thousands of files stored in an Amazon S3 bucket that has a well-defined access pattern. The files are accessed by an application multiple times a day for the first 30 days. Files are rarely accessed within the next 90 days. After that, the files are never accessed again. During the first 120 days, accessing these files should never take more than a few seconds. Which lifecycle policy should be used for the S3 objects to minimize costs based on the access pattern?

1. Use Amazon S3 Standard-Infrequent Access (S3 Standard-IA) storage for the first 30 days. Then move the files to the GLACIER storage class for the next 90 days. Allow the data to expire after that.
2. Use Amazon S3 Standard storage for the first 30 days. Then move the files to Amazon S3 Standard- Infrequent Access (S3 Standard-IA) for the next 90 days. Allow the data to expire after that.
3. Use Amazon S3 Standard storage for first 30 days. Then move the files to the GLACIER storage class for the next 90 days. Allow the data to expire after that.
4. Use Amazon S3 Standard-Infrequent Access (S3 Standard-IA) for the first 30 days. After that, move the data to the GLACIER storage class, where is will be deleted automatically.

**Answer: B. Use Amazon S3 Standard storage for the first 30 days. Then move the files to Amazon S3 Standard- Infrequent Access (S3 Standard-IA) for the next 90 days. Allow the data to expire after that**

**QUESTION 14**

An application runs on Amazon EC2 instances across multiple Availability Zones. The instances run in an Amazon EC2 Auto Scaling group behind an Application Load Balancer. The application performs best when the CPU utilization of the EC2 instances is at or near 40%. What should a solutions architect do to maintain the desired performance across all instances m the group?

1. Use a simple scaling policy to dynamically scale the Auto Scaling group
2. Use a target tracking policy to dynamically scale the Auto Scaling group
3. Use an AWS Lambda function to update the desired Auto Scaling group capacity
4. Use scheduled scaling actions to scale up and scale down the Auto Scaling group

# Answer: B. Use a target tracking policy to dynamically scale the Auto Scaling group

**QUESTION 15**

You are setting up a VPC and you need to set up a public subnet within that VPC. Which following requirement must be met for this subnet to be considered a public subnet?

1. Subnet's traffic is not routed to an internet gateway but has its traffic routed to a virtual private gateway.
2. Subnet's traffic is routed to an internet gateway.
3. Subnet's traffic is not routed to an internet gateway.
4. None of these answers can be considered a public subnet.

# Answer: B. Subnet's traffic is routed to an internet gateway

**QUESTION 16**

A company receives structured and semi-structured data from various sources once every day A solutions architect needs to design a solution that leverages big data processing frameworks. The data should be accessible using SQL queries and business intelligence tools What should the solutions architect recommend to build the MOST high-performing solution?

1. Use AWS Glue to process data and Amazon S3 to store data
2. Use Amazon EMR to process data and Amazon Redshift to store data
3. Use Amazon EC2 to process data and Amazon Elastic Block Store (Amazon EBS) to store data
4. Use Amazon Kinesis Data Analytics to process data and Amazon Elastic File System (Amazon EFS) to store data

**Answer: B. Use Amazon EMR to process data and Amazon Redshift to store data**

**QUESTION 17**

A company runs an application using Amazon ECS. The application creates resized versions of an original image and then makes Amazon S3 API calls to store the resized images in Amazon S3. How can a solutions architect ensure that the application has permission to access Amazon S3?

1. Update the S3 role in AWS IAM to allow read/write access from Amazon ECS, and then relaunch the container.
2. Create an 1AM role with S3 permissions, and then specify that role as the taskRoleArn in the task definition.
3. Create a security group that allows access from Amazon ECS to Amazon S3, and update the launch configuration used by the ECS cluster.
4. Createan IAM user with S3 permissions, and then relaunch the Amazon EC2 instances for the ECS cluster while logged in as this account.

**Answer: B. Create an 1AM role with S3 permissions, and then specify that role as the taskRoleArn in the task definition.**

**QUESTION 18**

A company is building applications in containers. The company wants to migrate its on- premises development and operations services from its on-premises data center to AWS. Management states that production system must be cloud agnostic and use the same configuration and administrator tools across production systems. A solutions architect needs to design a managed solution that will align open-source software.

Which solution meets these requirements?

1. Launch the containers on Amazon EC2 with EC2 instance worker nodes.
2. Launch the containers on Amazon Elastic Kubernetes Service (Amazon EKS) and EKS workers nodes.
3. Launch the containers on Amazon Elastic Containers service (Amazon ECS) with AWS Fargate instances.
4. Launch the containers on Amazon Elastic Container Service (Amazon EC) with Amazon EC2 instance worker nodes.

**Answer: B. Launch the containers on Amazon Elastic Kubernetes Service (Amazon EKS) and EKS workers nodes.**

# QUESTION 19

# A company has its head office in Bangalore, and the company is a pharmaceutical company. And they invite 100 franchisees PAN India. All these franchisees have AWS accounts as per company norms to work with the parent company in Bangalore, but the parent company has a challenge to config all 100 AWS accounts in one go. To save time and effort AWS administrator of the parent company has the following options, you have to select a most suitable option to save time and effort to configure all AWS Accounts as per business requirements.

# Use SAM base configuration to manage all AWS Accounts

# Use CloudFormation script to configure all AWS Accounts

# Best way, AWS administrator will configure all AWS accounts one by one

# None of the above

# Answer:B Use CloudFormation script to configure all AWS Accounts

**QUESTION 20**

A solutions architect is planning the deployment of a new static website. The solution must minimize costs and provide at least 99% availability.

Which solution meets these requirements?

1. Deploy the application to an Amazon S3 bucket in one AWS Region that has versioning disabled.
2. Deploy the application to Amazon EC2 instances that run in two AWS Regions and two Availability Zones.
3. Deploy the application to an Amazon S3 bucket that has versioning and cross-Region replication enabled.
4. Deploy the application to an Amazon EC2 instance that runs in one AWS Region and one
5. Availability Zone.

**Answer: A. Deploy the application to an Amazon S3 bucket in one AWS Region that has versioning disabled.**