**AWS Practice set 2 : Q/Answer:**

1. **A company is using AWS Organizations to manage its multiple AWS accounts which is being used by its various departments. To avoid security issues, it is of utmost importance to test the impact of service control policies (SCPs) on your IAM policies and resource policies before applying them.**

**Which of the following services can you use to test and troubleshoot IAM and resource-based policies?**

**IAM policy simulator** evaluates the policies that you choose and determines the effective permissions for each of the actions that you specify. The simulator uses the same policy evaluation engine that is used during real requests to AWS services.

**AWS Config** is service that enables you to assess, audit, and evaluate the configurations of your AWS resources.

**Systems Manager**this service just provides a unified user interface so you can view operational data from multiple AWS services and allows you to automate operational tasks across your AWS resources. Unlike IAM Policy Simulator, it can't be used to simulate your policies.

**Amazon Inspector** it is just an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.

1. **You have just created a custom VPC with two public subnets and a custom route table. Which of the following is true with regards to route tables?**

A route table contains a set of rules, called routes, that are used to determine where network traffic is directed.

Each subnet in your VPC must be associated with a route table; the table controls the routing for the subnet. A subnet can only be associated with one route table at a time, but you can associate multiple subnets with the same route table.

Thus, the correct answer is "a subnet can only be associated with one route table at a time".

The option that says "a VPC has a default limit of 5 route tables" is incorrect because the default route limit per VPC is 200.

The option that says "you cannot associate multiple subnets to the same route table" is incorrect because you can associate multiple subnets to the same route table.

The option that says "you cannot modify/edit the main route created by default by AWS" is not accurate because it is definitely possible to modify/edit the main route table.

3.

**A developer monitors multiple sensors inside a data center which detects various environmental conditions that may affect their running servers. In the current architecture, the data is initially processed by an AWS Lambda function and then stored in an Amazon Redshift Cluster. To make the system more durable and scalable, the developer used an Amazon SQS FIFO queue to store the data which will be polled by the Lambda function. There is a known issue with the sensor devices that they occasionally send duplicate data.**

**What should you do to manage and avoid duplicates in your system?**

**Explanation**

Amazon SQS*FIFO (First-In-First-Out)* queues are designed to enhance messaging between applications when the order of operations and events is critical, or where duplicates can't be tolerated.